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# **PREDICTING CONSUMERS' PURCHASE INTENTIONS FOR SEX TOYS**

**An Application of the Theory of Planned Behavior**

Master's Thesis  
in Marketing

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# 1 INTRODUCTION

## 1.1 Background to the study

The motivation for the study stems from the growth of global sex toy market in recent years (statisticbrain.com). Using sex toys is fairly common, about half of 18–60-year olds Americans have used a vibrator in their sexual activities (Herbenick et al. 2009, 1857; Reece et al. 2009, 1867). Sex toys appeal to our basic need for sex but also to more complex needs for love, intimacy, and self-actualization (Maslow 1979, 35–36). Acquiring sex toys used to be difficult due to the poor availability and the taboo nature of these products. Sex toys were purchased from shady sex shops accompanied with feelings of embarrassment and spoken with sniggers and disapproval (Kent & Brown 2006, 201; Kent 2005, 432). The toys themselves were often made with low-quality materials and marketed to male clientele with a packing of scantily clad women (Eaglin & Bardzell 2011, 1837). Over the past few decades, sex toys have become less taboo. They are more widely accepted by the mainstream public due to the more liberal attitudes towards sexuality (Helén & Yesilova 2003, 264; Kontula 2008, 81, 104; Herbenick et al. 2011, 329; Loe 1999, 720, 722). Increased acceptability and easier availability have lowered the barriers to purchase sex toys. Sex toys have grown from a niche product into a mainstream consumer good. Today sex toys are widely available in various places: grocery stores, pharmacies, department stores, and e-tailers such as Amazon.

A combination of cultural, social, and technological changes have helped sex toys to cross into the mainstream market. The technological advancements have contributed to the increased demand for sex toys in two ways. Internet shopping allows purchase of sex toys anonymously online without the embarrassment of going into a traditional brick and mortar sex shop (Talvio 2011, 123, 140). Secondly, product innovations have led to the development of new and improved sex toys that combine design and high-quality (Attwood 2005, 401; Eaglin & Bardzell 2011, 1837).

The shift in the sex toy market towards mainstream is embedded in a wider context of cultural and social change in the Western society. The sexual revolution of the 60s, the feminist and gay liberation movements of the 70s, the AIDS crises in the 80s, and the contemporary LBGT (lesbian, gay, bisexual, and transgender) movements have all contributed to the development of more liberal attitudes towards sex (Helén & Yesilova 2003, 264; Kontula 2008, 81, 104; Herbenick et al. 2011, 329; Loe 1999, 720, 722). Sex toy market has benefitted from the more relaxed attitudes towards sexuality. Attitudes towards female sexuality have changed into more permissive (Kontula 2008, 81) making women a lucrative market for sex toys. The sex toy industry has grown by targeting female consumers and marketing sex toys to them with arguments about sexual health

and fashion (Attwood 2005, 401; Kent & Brown 2006, 203; Eaglin & Bardzell 2011, 1837). Television series, such as *Sex and the City*, and magazines, such as *Cosmopolitan*, have stylized sex toys and made them more approachable to women.

The more open-minded attitudes towards sexuality allows discussion of sex toys in the mainstream media without a moral outrage. The open display of sexual content in the mainstream media is considered normal in today's sexualized culture (Attwood 2009, xiii; McNair 2002, ix). Sex toys are increasingly a matter of lifestyle, introduced to us by the media and sold to us as products marketed with arguments of style and fashion (Attwood 2009, xiii; McNair 2002, ix). In porno-chic, pornographic elements are incorporated into non-pornographic art, fashion, and advertising (McNair 2002, 61). Fashion designer Alexander McQueen, singer Katy Perry and artist Jeff Koons are examples of this phenomenon. Porno-chic has brought sexual consumerism to mass audiences via commodification (McNair 2002, 87). For example the homoerotic art of Tom of Finland is featured in bed sheets and coffee packages. Sex toy market is also moving towards licensing. This offers further potential for the industry to grow. In 2017, Burger King in Israel launched an adult meal for Valentine's Day featuring a sex toy with each meal. The most successful licensing to date has been from the erotic book "50 Shades of Gray". The sex toys created around the events and characters of the book sold in the mainstream retailers such as Target. (Langsworthy 2015.)

Intimate matters have become public as the boundaries between private and public spheres of life are dissolving (Plummer 2003, 68; Kontula 2008, 22). Individuals are not embarrassed to reveal intimate details about their sexualities. In fact, sexual exhibitionism and sexualized looking are encouraged by the surrounding society. Intimate confessions and pictures are shared via social media, and reality shows with strong sexual elements, such as *Temptation Island*, are mainstream entertainment. (Attwood 2009, xv; McNair 2002, 88.) The phenomenon, where especially young people live their intimacies through media, is referred to as intimate citizenship (Plummer 2003, 21, 68) and striptease culture (McNair 2002, 88). An environment promoting open discussion about sexuality has helped to shed the taboo attached to sex toys. For the sex toy industry, it has opened new opportunities for the branding and marketing of their products.

## **1.2 Theory of planned behavior**

The understanding of consumer behavior is the Holy Grail for practitioners and researchers alike. One way to predict consumer behavior is to explore consumer attitudes. In the previous section, the sex positive attitudes of our society were mentioned as one of the things influencing the demand for sex toys. The importance of positive consumer attitude in products related to sexual behavior is crucial. Condom purchase and use have

been socially acceptable for a long time, thanks to the social marketing campaigns for safe sex practices (Wilson & West 1995, 37). When trying to affect consumer attitudes, it is important to have information about why people hold a certain attitude. The Fishbein multiattribute model (Fishbein 1963, 233) not only measures attitudes but it gives information why a person chooses to behave in a certain way. The model states that attitude toward an object is a function of a person's beliefs about object (i.e. sex toys are user friendly) and the evaluation of those beliefs (i.e. user friendly sex toys are a good thing) (Fishbein 1963, 238).

In the multiattribute model, we can have a positive attitude towards an object, but we do not necessary go ahead and buy the product. This is the case for condoms, most people hold positive attitude towards condoms, but due to embarrassment may find it hard to purchase them. In situations like this, it is better to use attitude towards behavior models measuring the attitude towards condom use instead of the object: condom. One such model is the theory of planned behavior (from now on referred to as TPB), which is a comprehensive model of human behavior based on the multiattribute model. TPB is widely supported by empirical evidence and has been applied to variety of behaviors including safe sex practices (Sheppard et al. 1988; Armitage & Conner 2001; Godin & Kok 1996; Sheeran 2002; Albarracín et al. 2001; Sheeran & Taylor 1999).

According to TPB, behavior can be predicted with behavioral intentions. Behavioral intention is the likelihood that the person will engage in a certain behavior. Intentions can be predicted with consumers' attitude, subjective norm, and perceived behavioral control, which in turn are formed from the underlying behavioral, normative, and control beliefs. (Ajzen 1991, 192, 188; Armitage & Conner 2001, 471; Godin & Kok 1996, 87; Sheeran 2002, 4.) The TPB will be further discussed in Chapter 3. The components of TPB behavior are depicted in Figure 1.

According to TPB, the attitude towards a behavior is constructed from behavioral beliefs. These are the anticipated negative and positive outcomes of the behavior. Person will form a positive attitude towards the behavior that will help them to achieve the desired outcomes and to avoid the negative outcomes (Deci & Ryan 1985, 235). Behavior is influenced not only by attitude but our social environment. Subjective norm measures the social influences on behavior. Subjective norm is based on normative beliefs about what others, such as friends and family members, might think about the behavior. The social acceptance of others is especially relevant in socially sensitive product categories such as sex toys. If others might disapprove our behavior, we tend not to perform the behavior publicly or at all. The third component in the TPB model is perceived behavioral control, which is the influence of factors that might hinder or facilitate the behavior (Ajzen 1991, 192).

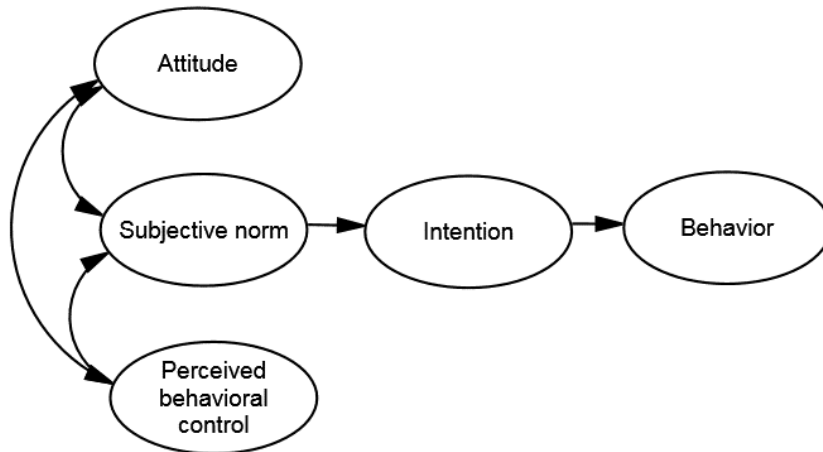


Figure 1 The theory of planned behavior (Ajzen 1991, 182)

It has been suggested that the predictive power of TPB could be improved with adding past behavior as a determinant for intentions. Past behavior has been reported to have a significant effect on intentions (Conner & Armitage 1998, 1433; Sheeran & Taylor 1999, 1629), sometimes over the effect of TPB variables (Sutton et al. 1999, 72). According to the original TPB model, demographic factors should not affect intentions as they are moderated by beliefs (Ajzen & Fishbein 2005, 194). However, demographic factors, such as age and gender, have been found to have an effect on intentions (Sheeran & Taylor 1999, 1657).

### 1.3 Research gap

The market for sex toys has grown steadily in the recent years. At the moment, the global sex toy industry is valued annually at over 15 billion USD (statisticbrain.com). In the academic research, the consumer behavior related to sex toys has received surprisingly little attention when taking into account the size of the business. The lack of research could be explained with the fact that the topic might have been considered as a taboo among consumers as well as the researchers in the past. The aim of the thesis is to examine purchase intentions towards sex toys through the framework of the TPB, which is based on the notion that consumer behavior can be predicted from intentions towards the behavior (Ajzen 1991, 192).

Previous research conducted in business studies about sex toys is scarce. Articles are mostly published in other areas such as health science (Herbenick et al. 2009; Shick et al. 2013) and gender studies (Loe 1999; Evans et al. 2010). Full review of previous research is presented in Chapter 2. As not much is known about the customers for these products, more research is needed on sex toys in the context of marketing. From a marketing

perspective, understanding consumer behavior is essential. Studying purchase intentions through the TPB gives rich information on consumer motivation for purchasing sex toys. The majority of existing research focuses on historical accounts about the evolvement of the adult retailing industry (Kent & Brown 2006; Liebermann 2016). This study is focused on providing current information about purchase intentions and factors affecting it. Outdated beliefs and stereotypes often surround the discussion on sex toys and getting accurate information about consumer beliefs is important. Most studies have adopted a female perspective on the consumption of sex toys ignoring other groups that use and buy sex toys (Schmidt & Malina 1997; Walther & Schouten 2016; Attwood 2005). This study tries not to over-emphasize the female perspective but to provide knowledge on different consumer groups for sex toys.

Most studies conducted on sex toys from a marketing perspective are qualitative (Kent & Brown 2006; Liebermann 2016). The lack of quantitative studies is evident. This study uses both quantitative and qualitative methods, but the emphasis is on providing quantitative information about purchasing of sex toys. TPB has been previously used for prediction of condom use (Sheeran & Taylor 1999, 1662). This study aims to provide further evidence whether the TPB is a good instrument for measuring sex-related behavior.

#### **1.4 Purpose of the study and research questions**

The purpose of this thesis is to investigate factors that predict consumer purchase intentions for sex toys. According to the TPB, purchase intentions can be predicted from attitude, subjective norm, and perceived behavioral control. These determinants in turn are constructed from the corresponding behavioral, normative, and control beliefs. A mix of qualitative and quantitative research methods was used to address the following three research questions:

1. What are the beliefs that consumers have about purchasing sex toys? Three belief categories were examined consistent with the theory of planned behavior:
  - a. behavioral beliefs (i.e. positive and negative consequences regarding the purchasing of sex toys)
  - b. normative beliefs (i.e. others perceived as approving or disapproving the individuals' purchasing of sex toys)
  - c. control beliefs (i.e. perceived facilitators and inhibitors for the purchasing of sex toys)

2. To what extent do attitude, subjective norm, perceived behavioral control, and past behavior predict purchase intentions for sex toys?
3. How do high purchase intention and low purchase intention groups vary according to demographic characteristics?

In order to answer the first research question, consumer beliefs about purchasing sex toys were explored through literature review, expert interviews, and a belief elicitation study. It is crucial to understand consumer beliefs as they are applied to form attitude, subjective norm, and perceived behavioral control constructs. Through the examination of beliefs, a deeper understanding of the motivation that drives consumer behavior for sex toys is gained. A quantitative survey based on the expert interviews and the belief elicitation study results, was used to answer the second and the third research question. In the second research question, the conceptual framework for the study was tested to find out whether attitude, subjective norm, perceived behavioral control, and past behavior can predict purchase intentions for sex toys. In order to answer the third research question, two groups were formed from behavioral intention variable: One with high purchase intentions and one with low purchase intentions. The demographic differences between these groups were examined. Figure 2 illustrates the different phases of this thesis.

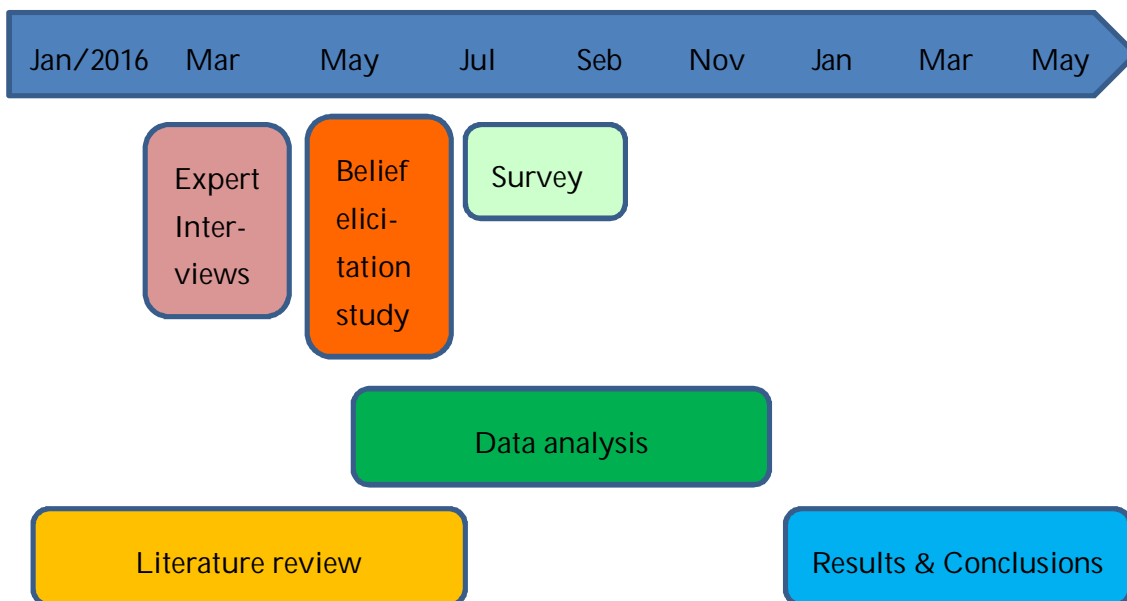


Figure 2 Research progress timeline

The literature review was started during the formulation of the research proposal. The first data was collected in the form of expert interviews. Interviews were conducted in the beginning of March 2016 followed by the belief elicitation study at the end of May. The

data analysis for the belief elicitation study and expert interviews were performed in June. The data collection for the survey started in the beginning of July. The statistical analysis of the survey data was performed from August to November. The writing of the results and conclusions were started at the beginning of the year 2017.

## **1.5 Structure of the study**

Chapter 1 offers an introduction to the thesis including motivation to the study, theoretical background, and study objectives. Chapter 2 introduces the context of the thesis: sex toys. The first section (2.1) begins with a review of the existing research on consumer behavior related to sex toys. The second section (2.2) looks at how product innovations have improved sex toys and change the dynamics of the industry. The third section (2.3) offers a brief description of the sex toy retail environment discussing the availability of sex toys. The fourth section (2.4) investigates the taboo nature of sex toys. Special characteristics that spring from the socially sensitive nature of sex toys such as purchase embarrassment are explored.

In Chapter 3 the first section (3.1) looks at the theoretical framework of this thesis: the TPB. In the second section (3.2), the determinants for purchase intentions: attitude, subjective norm, perceived behavioral control, past purchase behavior, and demographic variables are discussed. In the third section (3.3), the research hypotheses and the conceptual framework for this study are introduced. The empirical part of this thesis starts from Chapter 4. The first section (4.1) discusses mixed methods research. The second section (4.2) examines both the quantitative and qualitative data collection and analysis methods of this study. The third section (4.3) explores the findings from the qualitative phase of the study. The findings from the expert interviews and the results of the belief elicitation study are reported. The results of the qualitative phase of the study are used to form the survey questionnaire. In the last section (4.4), the validity and reliability of this thesis are looked into.

In Chapter 5, the results for the study are reported. In the first section (5.1) the sample characteristics are described. In the second section (5.2) results for the attitude towards purchasing sex toys and behavioral beliefs are reported. In the third section (5.3), the findings for subjective norm and normative beliefs are looked into. In the fourth section (5.4), the findings for perceived behavioral control and control beliefs are examined. In the fifth section (5.5), the conceptual framework for purchase intentions for sex toys is tested. In section six (5.6), the results concerning the difference between high and low intention groups are reported. In section seven (5.7) the findings of this study are discussed. Chapter 6 covers theoretical and managerial implications of the study,

limitations of the study, and the avenues for future research. Chapter 7 provides a summary of the thesis.



## **2 AN OVERVIEW OF THE SEX TOY MARKET**

### **2.1 Previous research on sex toys**

The research on sex toys from a marketing perspective is very scarce. A fair share of previous business research on sex toys is concentrated on describing how the adult retailing industry has changed during the past decades. At the focal point of these studies is the role of women as consumers for sex toys, and the juxtaposition of traditional sex shops and new erotic boutiques. Table 1 presents an overview of previous studies on consumer behavior related to sex toys. Kent and Brown (2006, 203–209) described the evolvement of sex shops from shady bookstores targeted at men to stylish sex shops that cater for female clientele spanning their analysis from the 1960s to the beginning of the millennium (Table 1). Martin and Crewe (2016, 586–590) explored the differences between traditional sex shops and new erotic boutiques in England and Wales. Authors found that the two differ in terms of design, marketing, and product selection (Table 1). Liebermann (2016, 393) and Maines (1989, 3) focused describing the commercial development of the vibrator (Table 1).

Several studies focus on women as consumers of sex toys. Schmidt and Malina (1997, 352) conducted an exploratory case study about the service encounters in a UK based sex shop Sh!. They explored hedonistic consumption in sex shops targeted at women (Table 1). Walther and Schouten (2016, 273) examined erotic consumption among Brazilian women (Table 1). Attwood (2005, 392) examined websites that sold sex products for females (Table 1). According to Attwood (2005) these websites marketed sex toys to women as fashion and design items making them increasingly a question of taste. Smith (2007, 167–168) examined sex retailing in UK and advancement in sex toy design as a means for women to express taste and lifestyle (Table 1).

The arrival of ecommerce had an immense impact on sex toy market, however, only few researchers have studied this area. Daneback et al. (2011, 102) examined the characteristics of consumers purchasing sexual merchandise online (Table 1). They found out that reasons for buying sexual merchandise online were convenience, large selection of products, anonymity, low prices, to avoid visiting offline sex shops, and availability of the product (Daneback et al. 2011, 106).

Table 1 Previous research on consumer behavior related to sex toys

Author(s)	Publication year	Topic
Maines	1989	A historical account of the electromechanical vibrator.
Schmidt & Malina	1997	Exploratory case study about service encounters in a sex shop targeted to women.
Attwood	2005	How sex toys are being marketed in online stores targeted to woman with arguments of fashion and design.
Kent & Brown	2006	The historical development of sex shops in Britain examined through the concept of 4P.
Smith	2007	Sex retailing in UK and advancements in sex toy design from the perspective of female consumers. Sex toys as symbolic goods, expressions of taste, and an object for differentiation.
Daneback et al.	2011	Characteristics of consumers who use Internet for purchasing sexual merchandise such as sex toys and pornography.
Martin & Crewe	2016	Sex stores as female consumption space with specific geography and a particular set of branding, marketing, sales, and retail design techniques.
Liebermann	2016	The multiple sexual and non-sexual meanings of sex toys in marketing and advertising in the early 20th century.
Walther & Schouten	2016	Ethnographic study about erotic consumption among Brazilian females.

For a long time sex toys were associated with the consumption of pornography. The vast research conducted on pornography (Attwood 2005; Paasonen et al. 2015) has overshadowed sex toys as a research subject. Many studies treat pornography and sex toys as products in the same category (Daneback et al 2011). A large part of the research on sex toys has been conducted in the 2000s (Table 1).

## 2.2 The recontextualization of sex toys

According to Oxford dictionary, a sex toy is: “*An object or device used for sexual stimulation or to enhance sexual pleasure*”. Sex toys can be used for multiple purposes alone or with a partner by people of all age groups. The terms sex toy (Schmidt & Malina 1997), sex product (Martin & Crewe 2016), sexual merchandise (Daneback et al. 2011), and adult novelty (Bardzell & Bardzell 2011) have been used in previous research. Products considered as sex toy in this study were: vibrators, lubrication products, dildos, anal sex toys, penis rings, rubber vaginas, props for erotic play, and BDSM gear. The most purchased sex toy today is the vibrator (Daneback et al. 2011; Chiang 2011; Millward 2014). It was the first commercial sex toy of the modern era. Vibrators originated in the nineteenth century as a medical cure for female hysteria (Maines 1999, 11). In the beginning of the 20th century, they were marketed as consumer electrics and displayed in the shop windows. They were advertised in the mainstream women’s magazines alongside kitchen appliances. The visible non-sexual uses of vibrators coexisted with the concealed sexual uses of the products. The vibrator was often described as a medical device that cured headaches and sore muscles. (Liebermann 2016, 394.) Even when the uses were openly sexual, as in an advertisement of Hygieny vibratory Co from 1903 that advertised Sexual vibrator for men and women, the media for the advertisement was respectable such as in this case the Health magazine (Liebermann 2016, 415).

The open advertising and selling of vibrators was short-lived as in the 1920s vibrators started to appear in pornography, and as a result lost their respectable reputation (Maines, 1999, 19–20). The 1960s marked the beginning of the sexual revolution, but sex toys were still uncommon. The most popular toys, such as the Hitachi massage wand, were marketed for nonsexual uses (Maines 1999, 20). It was not until the AIDS crises in the 1980s that sex toys really resurfaced. The wide condom marketing campaigns that emphasized the use of condom as a pleasure device rather than a contraception method, made other sex products more acceptable and marketable (Wilson & West 1995, 34, 39, 41). For the exception of massage wands, most products that were sold as sex toys were targeted at males. They were cheap and made from low-quality, unsafe materials such as plastic that contained toxins. These products were meant to be dispensable and were often the prop for pornography. The dildos and vibrators resembled the male penis in terms of color and form. (Bardzell & Bardzell, 2011 258; Loe 1999, 712.)

By the mid-1990s, the sex aid became a sex toy and the vibrator a symbol of active female sexuality (Attwood 2005, 395). Long gone were the plastic phalluses as female consumers welcomed the brightly colored silicone dildos and vibrators. Functionality and playfulness were the key characteristics of these new sex toys. Even the names of the products reflected this. The Rampant Rabbit caused a shopping hysteria selling millions

after being featured in *Sex and the City* television series in 1998 (Kent & Brown 2006, 206). Phenomena, such as *Sex and the City*, meant that sex toys were increasingly sold as fashion objects (Attwood 2005, 393, 396). The sex toys kept evolving in the following years in terms of size, material, and battery life, but most importantly in design (Eaglin & Bardzell 2011, 1841). Vibrators such as the Infinity and Form were acknowledged with design awards alongside other consumer products (Kent & Brown 2006, 207). Today, the sex toys continue to evolve in terms of developments in digital technologies. The vibrators can be controlled via mobile phones or pelvic muscles can be exercised with a Bluetooth-enabled exerciser that gives the user feedback.

Not only the ergonomics and form of the products have improved but an entirely new category of sex toys, the designer sex toys, has emerged. Well-known designers Stefen Lindfors and Tom Dixon have both designed a dildo. The Bone vibrator from Dixon is sold for 170 euros when an average vibrator costs 25 euros. Dildos are made from unusual materials including glass or wood. They are considered more as an art piece or a collector's item than a device for masturbation (Smith 2007, 167). New high quality materials and the focus on design have made the sex toy a personal object which can be bought as a present or even displayed at home (Smith 2007, 177; Kent & Brown 2006, 207). The high-end sex toys have created a dialogue of sex toys as a matter of taste and lifestyle where sex toys work as marking distinction (Smith 2007, 167–168; Attwood 2005, 403–404). The rise of designer sex toys have been noticed in Finland. Tekes, the Finnish funding agency for innovation, has funded the maker of wooden dildos.

In the past, many sex toy manufacturers had strong ties to porn industry. Today people outside the adult industries, inspired by their own experiences, start sex toy companies. (Bardzell & Bardzell, 2011, 261.) Jimmyjane designers have previously worked for Nike and Motorola. We-Vibe creators worked at Nortel, and Lelo's founders were engineers at Ericsson (Bardzell & Bardzell, 2011, 259). These new type of sex toy manufacturers do not want to be associated with porn industry and prefer to categorize their products as consumer goods as it makes the marketing and selling of sex toys easier (Sharma, 2013; Forbes.com; Bardzell & Bardzell, 2011, 260). The change that has happened in the manufacturing side of sex toys plays a major part in the recontextualizing of sex toys in the consumer goods category rather than the adult entertainment category.

### **2.3 Sex toy retail environment**

Sex toys are sold in various places including specialized stores online and offline, in-home parties, and other sites such as pharmacies and grocery stores. Places that sell exclusively sex-related products have been referred to as erotic boutiques (Martin & Crewe 2016), sex shops (Schmidt & Malina 1997), sex stores (Martin & Crewe 2016),

and sex emporia (Attwood 2005). Terms that use the word erotic are usually associated with female oriented stores. The term erotica, in contrast to the term pornography, is more acceptable by the surrounding society (Kontula 2008, 44–45). The industry itself is referred as adult retailing (Herbenick et al. 2007), erotic retailing (Kent & Brown 2006), and erotic consumption (Walther & Shoulten 2016, 216).

The first sex shops of the modern era were established in the 1950s. The small shops, referred to as adult bookstores, sold pornographic material to male clientele (Schmidt & Malina 1997, 352). In time, the stores started to sell sex toys, although pornography remained as their main sale article, other services such as cinema and striptease were also offered (Kent & Brown 2006, 200; Martin 2015, 44–45). These stores were located in the red light district or in the outskirts of cities (Kent & Brown 2006, 201; Kent 2005, 432). The first sex shop in Finland, King's Sex, was established in 1966 in Punavuori district which at the time was known as the Reeperbahn of Helsinki (Helsingin uutiset 2013). King's Sex is still open for business, but as Internet has become the main channel for the consumption of pornography many traditional sex shops specialized in the selling of pornography are forced to close their doors (Moisio 2015) or turn their focus entirely on sex toys like the sex shop Antishop in Jyväskylä has done (Majaniemi 2015).

Traditional sex shops were seen as unsafe and vulgar by women (Martin & Creve 2016; Kent & Brown 2006, 203). For this reason women started to open their own sex shops for female clientele (Malina & Schmidt 1997, 353). The purpose of the shops was to offer an alternative sexual space for women (Loe 1999, 716). Paradoxically, also men were interested in an alternative space for shopping sex toys, and considered the female oriented shops better than the traditional sex shops (Loe 1999, 716). The interior and the exterior of the shops sets them apart from the traditional sex shops. The new erotic boutiques and the traditional sex shops can be seen as binary opposites. The traditional sex shops are perceived as dark, masculine, and seedy in opposite to the erotic boutiques that are light, female-centered, and stylish (Martin & Crewe 2016, 586–590). Traditional sex shops are located in marginalized areas hidden from the public eye when erotic boutiques are in central locations. Erotic boutiques have windows that allow daylight to come through to the store as opposed to the concealed windows of traditional shops. The use of color underlines the differences between masculinity and femininity. Ann Summers uses pink to create a feminine space as the designer boutiques often use black as it is associated with seduction. In the female oriented sex shops, trained and friendly employees offer customers advice on products and concerns of sexual health. (Bardzell & Bardzell, 2011, 258; Martin & Creve 2016, 586–590; Kent & Brown 2006, 202; Loe 1999, 712.)

The first female friendly shops opened in the 1970s, the Ann Summers store in London opened in 1970, and the Good Vibrations store in San Francisco in 1977. The first female friendly and owned sex shop in Finland, Sin City, opened in 1994. Five years later,

Elämän Suola opened in Tampere. Most female owned sex shops in Finland and abroad were result of the founders' own dissatisfactory experiences with traditional sex shops (Lappalainen 2011; Scmith & Malina 1997, 355). One ideology behind sex shops targeted at women was to provide information and advice about issues concerning sexual health (Attwood 2005, 394; Loe 1999, 705). Sex shops are places that people turn to when seeking for sexual knowledge (Kontula 2008, 202). Kent and Brown (2006, 204) described these types of shops as educators and Loe (1999) as sexperts providing consumers information about sexual health topics online and offline (Schick et al. 2013, 160; Reece et al. 2004 173, 175–176). Today sexual wellness is a trend that cannot be overlooked by sex toy industry (Eaglin & Bardzell 2011, 1837; Attwood 2005, 396; Marjaniemi 2015). Sex shops, such as Antishop, and sex toy manufacturers, such as Lelo, are cooperating with pharmacies, gynecologists and sexologists (Majaniemi 2015). Several manufactures emphasize sexual health aspects in their communication and use their own research data as a way of legitimatizing the sexual health benefits of their products.

The female friendly sex shops have evolved from politically motivated to those selling sex toys as fashion accessories and devices for expressing lifestyle (Loe 1999, 706). The newest form of sex shop is the high-end erotic boutiques, Coco de Mer and Myla, which have emerged in the market selling designer sex toys and lingerie (Smith 2007, 167). These stores have prime locations, and they offer stylized shopping experience and invest in expensive advertising (Martin 2015, 52; Kent & Brown 2006, 204). They offer their clientele a certain adult lifestyle and an opportunity to differentiate with the means of stylish products (Attwood 2005, 403–404; Smith 2007, 167–168). The success of these shops (Coco de Mer was bought by the industry giant Lovehoney in 2011) indicates that the physical sex shops are far from being extinct and still have something to offer for the consumer in the era e-tailing.

The impact of online shopping in the sex toy market is evident, not all consumers want to go to a physical store due to the sensitive nature of the product. In the past few years, online retailing has concentrated into the hands of few big players. Lovehoney, internationally, and Finnish Kaalimato.com are both perceived as reliable due to their size and visibility. Some shops rely on multichannel retailing model (Kent & Brown 2006, 204) and according to the owners of such stores these two forms support each other (Majaniemi 2015). In a physical shop, the consumer can compare the products easily and ask advice from the sales personal (Schmidt & Malina, 1997). Other retailers include various sites such as department stores, grocery stores, pharmacies, e-tailers, Amazon, and healthcare professionals' receptions.

## 2.4 Sex toys as taboo products

Some products, services, and concepts can be described as being offensive, embarrassing, unhealthy, socially unacceptable, harmful, unethical, or sexually oriented (Katsanis 1994, 5). They evoke reactions of distaste, disgust, offense, or outrage and dealing with them is avoided for reasons of delicacy, decency, morality, and fear (Wilson & West 1981, 92). The products have been referred as unmentionables (Wilson & West 1981, 1995; Katsanis 1994), socially sensitive (Shao & Hill 1994), offensive (Barnes & Doston 1990), controversial (Rehman & Brooks 1987), and taboo (Sabri et al. 2010). A major part of the research about controversial products is conducted in the framework of advertising where the cause for controversy is either the product itself or the execution of the advertisement. Examples of the products that have been considered controversial in the previous research are presented in Table 2.

Table 2 Examples of taboo products

Reference	Example of products
Wilson & West 1981	contraceptives, female hygiene products, drugs, abortion, condoms, sex aids, pregnancy tests, death related services, venereal disease treatments, racial and religious prejudice.
Wilson & West 1995	death, death-related services, some defense products, terrorism, racial and religious prejudice, hard drugs soft drugs, and extreme political parties
Rehman & Brooks 1987	feminine hygiene products, women's undergarments, alcohol, pregnancy tests, contraceptives, and medication for hemorrhoids
Barnes & Dotson 1990	condoms, tampons, female hygiene products, female and male undergarments, and negro college fund
Katsanis 1994	personal hygiene products, cigarettes, hair replacement products, rifles, and fur coats
Waller 1999; Waller et al. 2005; Fam & Waller 2003	racially extreme groups, religious denominations, guns, funeral services, political parties, cigarettes, alcohol, gambling, underwear, condoms, contraceptives, female hygiene product, and sexual diseases
Sabri & Obermiller 2012; Manceau & Tissier-Desbordes 2006	sexual and death themes in advertising such as sadomasochism and suicide

Taboo products include personal hygiene products and products that are associated to death, politics, or race. All research with the exception of Wilson and West (1995) referred health or hygiene products as being controversial. The health and hygiene products often include sex-related products such as condoms, sex aids, and contraceptives. The previous research about taboos has to be interpreted carefully as taboos vary across time and place. What was a taboo yesterday can be mainstream today or what is a taboo in one part of the world can be completely normal elsewhere (Wilson & West 1981, 91; Waller 1999; Waller et al. 2005).

Communicating about taboo products is often difficult (Wilson & West 1981, 99). In Finland the mainstream media has been reluctant toward sex shop advertisements. The Council of Ethics in Advertising in Finland has made several remarks in recent years about the advertising of major erotic retailers such as Kaalimato.com, Huippukiva.fi, and Hot Lips. The council has stated that the advertising of erotic products is permitted because the sale of these products is legal. Restrictions regarding what time of the day and which media the advertisements are shown were placed. Also a remark on the execution way of the advertisements for sex toys was given (kauppakamari.fi.)

Sex toys would best fit the controversial product type described by Wilson and West (1981, 92) as products that are accepted by the society, but rejected by the consumers for reason of embarrassment (Helweg-Larsen & Collins 1994, 227; Rehman & Brooks 1987). Socially sensitive products such as condoms can be the source of embarrassment. Taboo products affect a person by evoking feelings of embarrassment when purchasing or using the products (Helweg-Larsen & Collins 1994, 227). Talvio (2011, 84) described that buying sex toys evokes feelings of embarrassment but not as strongly as in the past.

Visiting a sex shop is especially embarrassing as there might be other shoppers present in the store (Talvio 2011, 84, 123). According to Oxford dictionary embarrassment is: "*A feeling of self-consciousness, shame, or awkwardness*". The presence of others makes us more self-conscious and therefore evokes feelings of embarrassment. Sex toys fit the description of a controversial product type suggested by Katkanis (1994, 11). Products that are perceived as beneficial but private. Private products are not discussed about in public. Accordingly, sex toys could be considered as a conversational taboo but not a behavioral taboo (Kim et al. 2004, 551–552).



### 3 PURCHASING SEX TOYS AS PLANNED BEHAVIOR

#### 3.1 Theoretical framework of the study

The importance of the purchase intentions lies in their ability to predict consumer behavior and forecast demand (Armitage & Conner 2001, 471; Godin & Kok 1996, 87; Sheeran 2002, 4). Intentions do not always lead to behavior but they are reported to be a good predictor of behavior (Sheeran 2002, 3). Purchase intentions can be defined as the overall motivation that a person has towards buying a product (Ajzen 1991, 181). According to Eagly & Chaiken (1993, 168) intention is: “...*commitment, plan, or decision to carry out an action or achieve a goal*”.

The earliest explanation for motivation is the drive theory that saw the sex as one of the basic drives for human behavior (Freud 1920; Hull 1943, 59–60). Maslow stated that basic needs included sex, eating, and sleeping (Maslow 1970, 35–36). All of these theories indicate that the sex drive is one of the fundamental things that motivate individuals (Baumeister et al. 2001, 263). The shortcoming of drive theories is that they assume that individuals act on impulses to satisfy their basic needs. The behavior of normal adults does not solely stem for primitive urges, but it is self-directed pulled by the desired outcomes rather than pushed by the drives (Deci & Ryan 1985, 34.). The ability to imagine and anticipate outcomes before making a purchase decision requires some amount of conscious thinking or cognition (Shapiro 1981, 9; Deci & Ryan 1985, 137).

The theory of reasoned action (from now on referred to as TRA) and the theory of planned behavior (TPB) are cognitive models for explaining human behavior based on the notion that behavior can be predicted from intentions towards the behavior. The TRA assumes that intention is predicted by attitude and subjective norm. The TPB postulates that intention has three key determinants: attitude toward behavior, subjective norm, and perceived behavioral control (Ajzen & Fishbein 2005, 194). TPB and its components are illustrated in Figure 3.

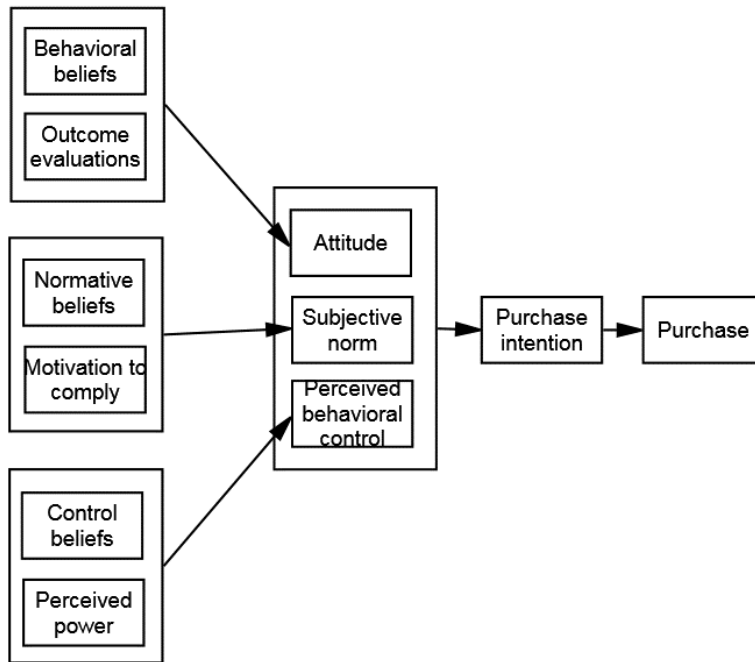


Figure 3 Decomposed theory of planned behavior (Ajzen & Fishbein 2005, 194)

The components of the model stem from the underlying beliefs. According to Oxford dictionary belief is: “*Something one accepts as true or real; a firmly held opinion*”. The beliefs do not represent an objective truth. They impact our behavior no matter how inaccurate, irrational, untrue, or biased they may be (Ajzen 2015, 127). According to Fishbein and Ajzen (1975, 14): “*...person’s beliefs serve as the informational base that ultimately determines his attitudes, intentions, and behaviors.*” Attitude is based on behavioral beliefs, which are the likelihood that the behavior is associated with a given outcome or consequence and the evaluation of these outcomes (Ajzen & Fishbein 2005, 193). Subjective norm is based on normative beliefs, which are expectations about what others would think about the behavior and motivation to comply with these expectations. Perceived behavioral control is based on control beliefs, which are beliefs about factors that would make the performing of the behavior harder or easier. (Ajzen 1991.)

### 3.2 Determinants of purchase intentions for sex toys

The behavior for the TPB has to be defined in terms of action, target, context, and time (Ajzen & Fishbein 1977, 913). The study examined purchase intentions for sex toys from online and offline stores within six months. The target of the behavior in the study was sex toys, and the action was purchasing sex toys. Context refers to the environment where

the purchase takes place, which in this study was online and physical stores. The time frame for the behavior was six months

### 3.2.1 *Attitude*

Attitude is one of the central concepts of consumer behavior. According to Ajzen and Fishbein (1977, 889) attitude can be defined as: “...*the feelings of liking or disliking that a person holds with regard to objects, services, people or ideas.*” Eagly and Chaiken (1993, 1) defined attitude as: “*A psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor.*” A distinction has to be made between attitude towards an object and attitude towards a behavior. Attitude toward a behavior is how favorable or unfavorable the behavior is perceived by the individual (Ajzen & Madden 1986, 454; Fishbein & Ajzen 1975, 6). Instead of examining attitudes towards sex toys, the study focused on attitudes towards purchasing sex toys. The former gives little information about purchase intentions, but the latter provides rich information regarding the future actions of the consumer. According to Jaccard et al. (1977, 817) behavior (i.e. going to church) can be best predicted with attitude toward the behavior rather than attitude towards the object (i.e. church).

Prediction of behavior from attitudes is based on the notion of consistency. A person holding a favorable attitude toward behavior is more likely to perform that behavior and vice versa (Ajzen & Fishbein 1977, 889). An individual will form a purchase intention towards the behavior s/he evaluates favorable (Deci & Ryan 1985, 235; Ajzen 1991, 188). Thus, it can be hypothesized:

**H1a: A positive attitude will have a positive and significant effect on purchase intention towards sex toys.**

In the TPB, attitudes can be measured with the underlying behavioral beliefs. The attitude towards a behavior is formed by multiplying behavioral beliefs with outcome evaluations (Fishbein & Ajzen 1975, 223). We form positive attitude towards behavior with desirable outcomes and negative attitude towards behavior with avoided outcomes (Ajzen & Fishbein 2005, 193). The purchasing of sex toys could be associated with the improvement of one’s sex life by forming the following belief: I believe that the purchasing of sex toys will spice up my sex life. Outcome evaluations are how desirable each outcome or consequence is, that is how positively or negatively one evaluates outcomes (Ajzen & Fishbein 2005, 193). For example: The spicing up of my sex life would be a good thing. The more positive the attitude, the more it helps to achieve

positively valued outcomes and block out negative ones (Ajzen & Fishbein 2005, 193). Thus, it can be hypothesized:

**H1b: The belief-based measure of attitude will have a positive and significant effect on purchase intention towards sex toys.**

### 3.2.2 *Subjective norm*

Our culture defines what is desirable and what is undesirable through social norms, which are the standards for ideal behavior within a culture (Deutsch & Gerard 1955, 629). Talvio (2011, 84) found that shame is especially strong in situations where the individual feels he or she has broken a social norms or other people are perceived to disapprove the behavior. Subjective norm is important when dealing with taboo objects or behavior (Sabri 2012, 232). According to Sabri (2012, 227) subjective norm can affect purchase intentions negatively when dealing with taboo products. The subjective norm measures the approval or disapproval of the behavior by the social referents of the consumer (Ajzen & Madden 1986, 454). The more favorable subjective norm with respect to a behavior, the stronger should be an individual's intention to perform the behavior. (Ajzen 1991, 188.) Thus, it can be hypothesized:

**H2a: A positive subjective norm will have a positive and significant effect on purchase intention towards sex toys.**

According to the TPB subjective norm can be measured indirectly with underlying normative beliefs. The belief-based subjective norm is computed by multiplying normative beliefs with the motivation to comply (Fishbein & Ajzen 1975, 399). Normative beliefs are the social influence of consumer's referents such as friends and family. A normative belief about the influence of friends would be: The opinion of my friend's matters to me when purchasing sex toys. The motivation to comply is how much the individual puts weight on the opinion of the group or individual in question. For example: The opinion of my friend is important to me. (Ajzen 1991.) The more approved the behavior is by the normative referents, the stronger should be an individual's intention to perform the behavior Thus, it can be hypothesized:

**H2b: The belief-based measurement of subjective norm will have a positive and significant effect on purchase intention towards sex toys.**

### 3.2.3 *Perceived behavioral control*

The TRA assumes that behavior is under person's volitional control, but the TPB considers volitional control as a separate variable termed perceived behavioral control representing one's perception of how easy or difficult it is to perform the behavior. Perceived behavioral control has helped account for variance (Armitage & Conner, 2001; Ajzen, 2011) and improved the prediction of intention from the TRA (Godin & Kok, 1996). Most behaviors require some kind of resources: time, money, and skills (Ajzen & Madden 1986, 455). The resources can be internal such as skills and knowledge or external such as time and opportunity (Ajzen & Madden 1986, 456). Behavior depends not only on motivation but adequate control over the behavior (Ajzen & Madden 1986, 458). Motivation impacts behavioral only to the extent that behavior control allows (Ajzen 1991, 183). The stronger the perceived behavioral control, the stronger should be an individual's intention to perform the behavior be (Ajzen 1991, 188). Thus, it can be hypothesized:

**H3a: A positive perceived behavioral control will have a positive and significant effect on purchase intention towards sex toys.**

According to the TPB perceived behavioral control can be measured indirectly with underlying control beliefs. The belief based measurement for perceived behavioral control is computed by multiplying control beliefs with the perceived power (Ajzen 2015, 129). Perceived behavioral control is based on control beliefs that have to do with the perceived presence of factors that may facilitate or impede performance of a behavior (Ajzen, 2006). For example: I believe that anonymity would make the purchasing of sex toys easier. Perceived power is the individual's subjective view on how much s/he has power over the factor. (Ajzen 1991, 196.) For example: I have the opportunity to buy sex toys anonymously. Thus, it can be hypothesized:

**H3b: The belief-based measurement of perceived behavioral control will have a positive and significant effect on purchase intention towards sex toys.**

Control beliefs can be influenced by past experiences with behavior. A person who has ordered sex toy from a webstore before, knows if anonymous purchasing is possible or not. Control beliefs can also be affected by second-hand information about the behavior. Recommendations about which products to buy from a friend can make the purchasing of sex toys easier.

### 3.2.4 *Past purchase behavior*

Past behavior provides information about the person's control over the behavior. Thus, the perceived behavioral control is assumed to reflect the influence of past behavior in the TPB (Ajzen 1991, 188, 204). The addition of past behavior as a separate construct improved the original model (Conner & Armitage 1998, 1433; Sheeran & Taylor 1999, 1629). Several studies indicate that past behavior has direct effects on intentions (Bagozzi & Kimmel 1995, 437; Bentler & Speckart 1979, 452; Kor & Mullan 2011, 1219; Smith et al. 2008, 311; Kidwell & Jewell 2008, 1162). Thus, it can be hypothesized that:

**H4: Purchasing in the past will have a positive and significant effect on purchase intention towards sex toys.**

### 3.2.5 *Demographic factors*

Purchase intention variable is used to form two groups: high purchase intention and low purchase intention groups. Intentions are measured on a seven-point scale where answers 5–7 indicate high purchase intentions and answers 1–3 indicate low purchase intentions. To find out the demographic factors meaningful in the context of sex toys the following variables are tested: age, gender, relationship status, region of residence (i.e. geographic location such as Uusimaa), area of residence (i.e. type of living environment such as urban area), relationship duration, children living at home, education, income, and current status.

The gender effect on purchase intentions can be expected on the basis that males have a stronger sex drive (Baumeister et al. 2001, 263). Because of the stronger sex drive, males tend to think about sex more often, desire sex more often, masturbate more, and have more liberal attitudes towards casual sex, pornography, paid-sex, and extra marital affairs than women. They are more interested in different kinds of experiences and have spent more money than women in sex-related products. (Kontula 2008, 53; Baumeister et al. 2001, 264.) The more permissive attitudes, higher sexual activity level (Daneback et al 2011, 106), and the willingness to spend money on sex toys would indicate that males are more prone to purchase sex toys.

Age explains sexual behavior as young people feel sexual desire more often and have more liberal attitudes towards sexuality than old people (Baumeister et al. 2001, 263). As sex is less important for aged individuals, it can be expected that older people are not as interested in buying sex toys as younger individuals (Merryn & Hinchliff 2003, 1626). Relationship status as a predictor of purchase intentions for sex toys is twofolded. On one hand individuals in a long relationship (Merryn & Hinchliff 2003, 1626) are less

interested in sex than couples in a new relationship. On the other hand many people turn to sex toys as a way to maintain or enhance the passion in their relationships (Kontula 2016, 15, 104). In previous research, people in a relationship were more prone to purchase sexual merchandise online (Daneback et al 2011, 106). According to Reece (2010, 402), men in a relationship were more likely to purchase a vibrator than single men. Region of residence and area of residence might affect purchase intentions because purchasing of sex toys might cause more stigma and embarrassment in small towns than in large cities (Hefley 2006). In addition: education, income, and current status variables are tested.

**H5: There will be significant differences between high and low purchase intention towards sex toys groups regarding demographic variables.**

### 3.3 Conceptual framework of the study

The TPB determinants, past purchase behavior, and demographic variables form the framework of the study with aspiration to determine the factors predicting the purchase intentions of sex toys. The framework and research hypothesis H1–H5 are depicted in Figure 4. Dependent variable, purchase intentions towards sex toys, and eight independent variables, attitude towards purchasing sex toys, subjective norm, perceived behavioral control, weighted behavioral beliefs, weighted normative beliefs, weighted control beliefs, and past purchase behavior, are shown in Figure 4.

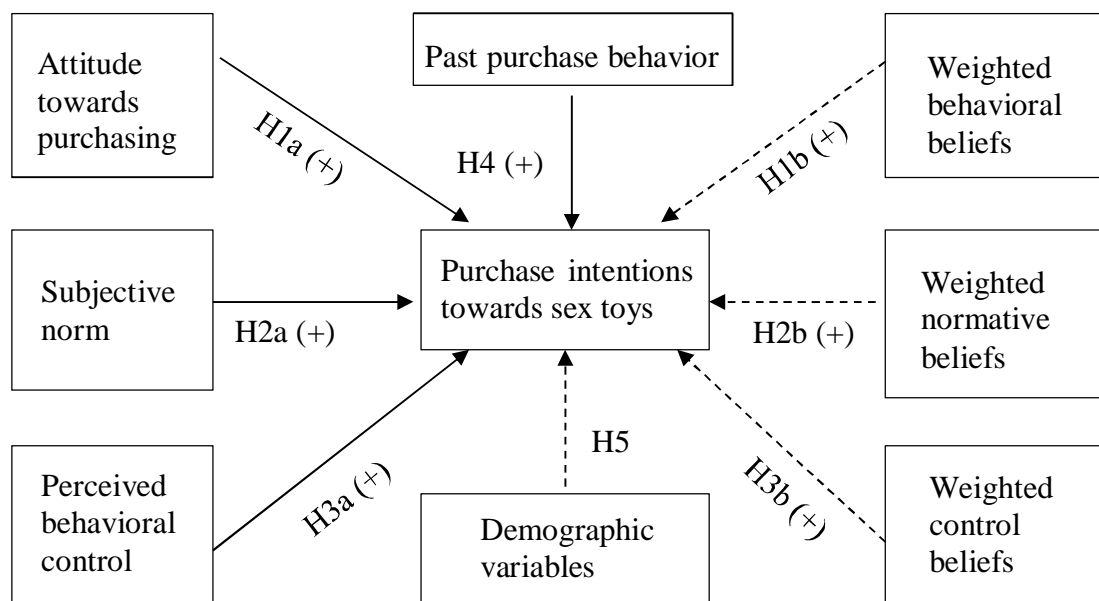


Figure 4 Conceptual framework for purchase intentions towards sex toys

Attitude, subjective norm, perceived behavioral control, and past purchase behavior are hypothesized to have a direct effect on purchase intentions marked with a straight arrow in Figure 4. The hypothesized direction of the relationship is marked in parentheses (Figure 4). Beliefs are expected to have an indirect relationship to purchase intentions. Behavioral beliefs are multiplied with outcome evaluations, normative beliefs are multiplied with motivation to comply, and control beliefs are multiplied with perceived power in order to get the weighted values of these beliefs. The weighted behavioral beliefs form an indirect way to measure attitude. The weighted normative beliefs form an indirect way to measure subjective norm. The weighted control beliefs form an indirect way to measure perceived behavioral control. The indirect relationship between dependent and independent variables is shown with a dotted arrow in Figure 4.



## **4 METHODOLOGY**

### **4.1 Mixed methods**

The post-positivist paradigm assumes that knowledge about reality can be acquired through objective measurements. Testing an existing theory by forming test hypothesis would result into an objective representation of reality. The starting point for the study was to test how purchase intentions towards sex toys could be predicted by using the TPB as a theoretical lens. The literature review revealed that a purely quantitative approach would be inadequate. The use of additional qualitative data would be beneficial due to the lack of prior research on consumer behavior about sex toys (Johnson et al. 2007, 124). A research approach with qualitative data collection methods such as expert interviews and elicitation study was adopted (Teddlie & Tashakkori 2009, 33). The quantitative data was collected through a survey with a large random sample that enables the generalization of the findings into a larger population (Creswell & Plano Clark 2011, 42).

The methodological approach that uses both quantitative and qualitative methods is referred to as mixed methods research (Johnson et al. 2007, 112). The thesis applied mixed methods but the priority was given to the quantitative methods (Morgan 1998, 362). When conducting a mixed methods research, it is possible to adopt a philosophical stand that varies across the quantitative and qualitative parts of the research. The thesis emphasized the quantitative research; therefore a unitary philosophical perspective of post-positivism was adapted.

Mixed methods researchers use the form of post-positivism called critical realism (Teddlie & Tashakkori 2009, 86; Metsämuuronen 2006, 207). Critical realism was adopted as the philosophical perspective of this thesis. Critical realism adopts the positivistic perspective that knowledge can be acquired through objective measurements, but at the same time it recognizes that complete objectivity cannot be reached due to the complex nature of phenomena (Metsämuuronen 2006, 205). The occurring of some epistemological constructivism during the qualitative data collection and analysis cannot be avoided. When conducting the expert interviews, the interviewees' own experiences could be over-emphasized in the analysis. The appearance of constructivism can be avoided by treating the interview data as facts and not as cultural meanings. (Alastalo & Åkerman 2010, 374.) According to the post-positivist view the researcher must remain objective when collecting the data (Creswell & Plano Clark 2011, 42). The survey and a part of the elicitation study were conducted online ensuring that the researcher could not influence the study subjects.

When conducting a mixed methods research, one has to decide how the quantitative and qualitative parts of the research relate to each other. In a sequential mixed methods

research design, the qualitative and quantitative parts of the research are conducted in consecutive phases within the study. (Ivankova et al. 2006, 3.) The sequential research design keeps the quantitative and qualitative parts of the research separate. This allows the epistemological stand to fluctuate. (Teddlie & Tashakkori 2009, 88.) The operationalization table (Table 3) shows the purpose of this thesis, research questions, and the corresponding questions either in the survey or the elicitation study (marked in bold).

Table 3 Operationalization table

<b>The purpose of this thesis is to investigate factors that predict consumer purchase intentions for sex toys.</b>			
Research questions	Theoretical framework	Empirical research	
		Procedure	Questions
1. What are the behavioral, normative, and control beliefs that consumers hold about the purchasing of sex toys?	Theory of planned behavior	Expert interviews Elicitation study Survey	<b>1–7,</b> 17–20, 29–31
2. How do attitude, subjective norm, perceived behavior control, and past purchase behavior affect purchase intentions for sex toys?	Theory of planned behavior	Survey	9–10, 14–16, 21–28, 32–38
3. How do high and low purchase intentions groups vary according to demographic characteristics?		Survey	4–8, 11–13, 16, 39–44
Background variables: age, gender, education, income, current status, relationship status, relationship duration, the number of children, area of residence, region of residence, and sexual orientation		Survey	4–8, 11–13, 39–44

Qualitative methods were used to answer the first research question (Table 3). Quantitative methods were used to answer research questions 2 and 3 (Table 3).

## 4.2 Data collection and analysis

Mixed methods research is composed from different phases of data collection and analysis. The exploratory sequential research design of the study is illustrated in Figure

5. In exploratory sequential research design (Creswell & Plano Clark 2011, 69), the qualitative data is gathered to explore the phenomenon after which the quantitative data is collected to explain relationships. Figure 5 shows the two phases of the study, and the procedures used in each phase and the product of those procedures.

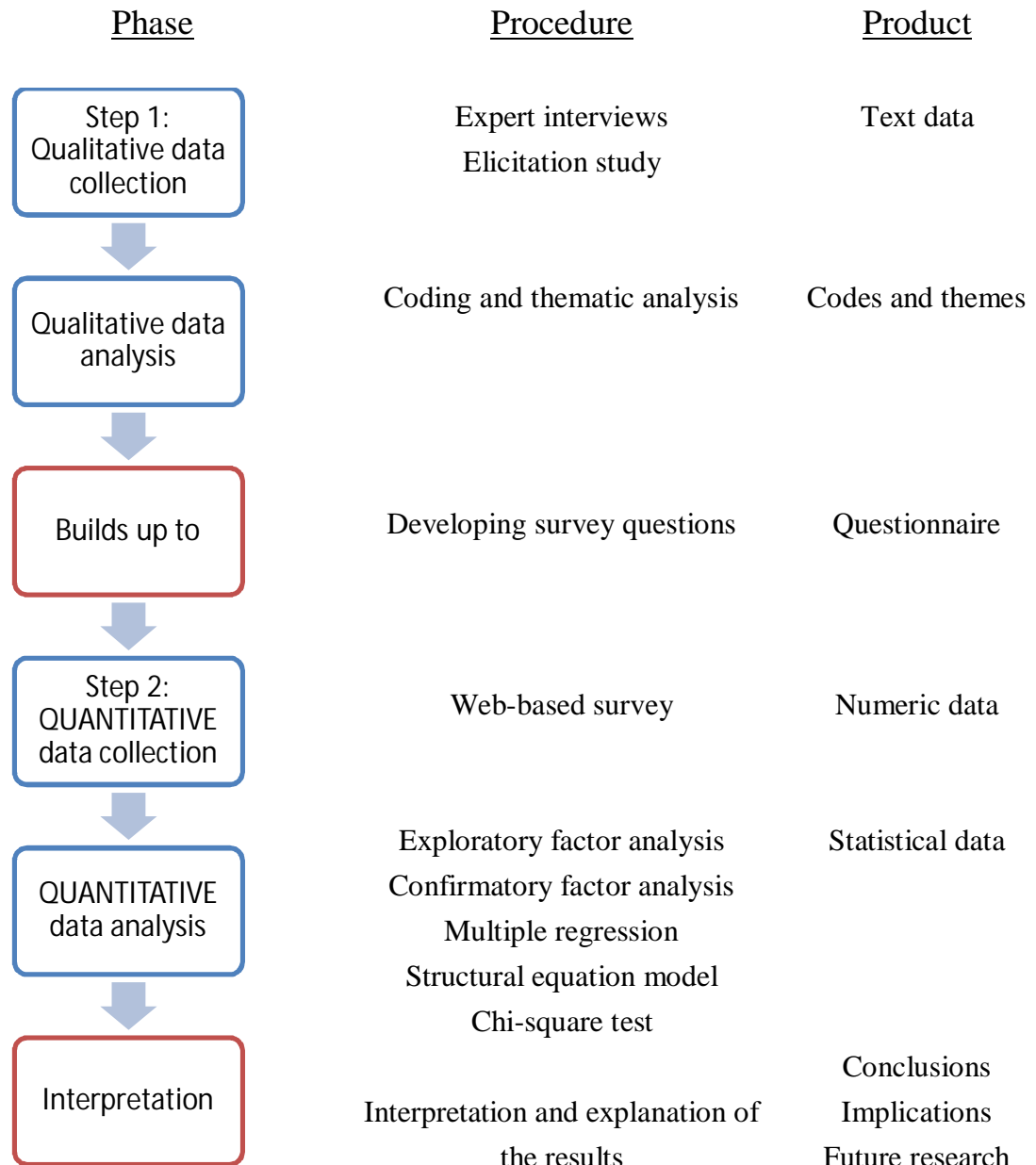


Figure 5 Exploratory sequential research design (Creswell & Plano Clark 2011, 69; Ivankova et al 2006, 16)

In Step 1, two expert interviews were conducted to gain a deeper understanding of the phenomenon (Hirsjärvi & Hurme 1991, 26). A belief elicitation study with open-ended questions was conducted to identify consumers' salient beliefs related to the purchasing

of sex toys. The data was used to develop the questionnaire items for the final survey. (Fishbein & Ajzen 1975, 218.). In Step 2, a structured survey was conducted in order to test the hypotheses (Teddlie & Tashakkori 2009, 153). Statistical analysis was performed on the data in order to gain relevant knowledge. The procedures are further explored in the following two chapters.

#### **4.2.1 Step 1: Qualitative data collection and analysis**

In March 2016, two expert interviews were conducted for the purpose to gain knowledge about the sex toy market in Finland (Alastalo & Åkerman 2010, 373). One was with an owner of a sex shop in Finland and another with Tommi Paalanen, the executive manager of the non-profit organization Sexpo. The interviewees will be referred from now on as Sex shop owner and Paalanen with his own name. The interviewees were selected through purposive sampling that allows the selection of cases that are rich in information (Teddlie & Tashakkori 2009, 173). Both of the interviewees can be seen as experts as they work among a constrict phenomenon and finding replacements for the interviewees would be difficult (Alastalo & Åkerman 2010, 374). The sex shop owner has been in business for over 20 years and can be seen as having inside knowledge about the development of the sex toy market. Sexpo provides education, counselling and other resources in the field of sexuality for professionals and private individuals. The executive manager of Sexpo is in a position that makes him qualified to give expert comments about issues concerning sexuality. (Alastalo & Åkerman 2010, 373–374.)

The semi-structured interviews used themes that were defined beforehand, but the interviewees had the freedom to talk about things outside the themes (Hirsjärvi & Hurme 1991, 26, 29). The interviews were conducted face-to-face in Finnish and later translated in English to have quotes for the study. Interview with the Sex shop owner lasted 104 minutes and the interview with Paalanen lasted 38 minutes. The interviews were recorded on a laptop. The transcription accuracy level was standard transcription leaving out sounds such as laughter (Hirsjärvi & Hurme 1991, 112).

As another qualitative method in the thesis, a belief elicitation study about the consequences of using and buying sex toys was administered in Webropol for a convenience sample of researcher's acquaintances, the attendees of Red Cross First aid class in Helsinki, pedestrians in the Esplanade park, and university students from the classes of 2015 and 2010 of Turku School of Economics. Convenience sampling was chosen as sampling technique because it is cost and time efficient. (Teddlie & Tashakkori 2009, 170–171.) The researcher's acquaintances and the university students filled the Webropol questionnaire via an email link. The first aid class attendees and pedestrians

were asked to fill a paper version of the questionnaire. The belief elicitation study data was classified and coded with NVivo program.

#### **4.2.2 Step 2: Quantitative data collection and analysis**

Probability sampling was used for the quantitative research. The aim was to make generalization about the results into a larger population. (Teddlie & Tashakkori 2009, 170.) A general census sample via mail was considered as data collection method for the structured survey, but the idea was rejected due to the high cost of this method. An online survey with a web based questionnaire was selected as a method for its cost and time efficiency (Van Selm & Jankowski 2006, 437). The problem with online surveys is to get a representative sample of the population. To avoid problems with sampling, the data collection was outsourced to a market research company. TNS Gallup was selected as the service provider due to the company's good reputation and experience in conducting consumer research in Finland. Kaalimato.com paid the use of a market research company. The online surveys tend to work best for reaching young people (Van Selm & Jankowski 2006, 437). The research company recommended leaving out people over 65 as in their experience this group was not reached through online surveys. In addition of leaving out individuals over 65, the decision to leave out individuals under the legal age limit of Finland (18 years) was made because of the sensitive nature of the product.

The data was obtained from an online survey conducted from June 30th to July 8th 2016. The data collection was carried out as a web based questionnaire in Webropol to Finnish speaking individuals aged between 18 to 65 years. A link to the survey was sent to the respondents by TNS Gallup. A unique respondent ID was used to avoid multiple respondent problem (Van Selm & Jankowski 2006, 450). The survey was conducted using a stratified random sampling where the collection of the data is based on quotas about the features of the whole population (Table 8) (Teddlie & Tashakkori 2009, 172). The quotas were formed by TNS Gallup according to the age and gender structure of the Finnish population. During the data collection the survey company sent out reminders for non-responders from groups that lacked behind from their assigned quota.

The analysis of the quantitative data began with describing the sample characteristics. After which an exploratory factor analysis (from now on referred to as EFA) was performed in SPSS for behavioral beliefs and control beliefs. The purpose of the EFA was to identify common features among the belief variables, and to reduce the number of variables by forming descriptive factors. Confirmatory factor analysis (from now on referred to as CFA) was performed in SPSS AMOS to confirm that the data supported the model gain from the EFA. (Metsämuuronen 2006, 581; Ullman 2013, 731.)

The relationship of the TPB constructs was examined through the multiple regression analysis. The regression analysis is especially suitable method for analysis when the predictors are known. The purpose is to explain how much of the variability is explained by the predictors and which of the predictors explains the dependent variable best. (Metsämuuronen 2003, 580.) Sequential regression analysis for purchase intention as dependent variable (DV), attitude, subjective norm, perceived behavioral control, and past purchase behavior as independent variables (IV) was performed. Chi-square test was used to examine whether there are any statistically significant differences between high and low intention groups in regard to demographic variables.

### 4.3 Questionnaire development

In the section, the findings from the expert interviews and the results from the belief elicitation study are presented. On the basis of these findings, the survey questionnaire is developed.

#### 4.3.1 Findings from expert interviews

Two in-depth interviews were conducted with industry experts in order to understand the sex toy market. The original interviews were in Finnish but translated here in English. The findings from the interviews confirm many of the views discussed in Chapter 2. Both interviewees mentioned open discussion about sexuality in mainstream media as an important factor behind the changing attitudes towards sexuality. Paalanen (2016) emphasized the way discussion about sexuality has moved from the marginal to the mainstream.

*Open discussion of sex has increased in the mainstream media. Magazines, social media, different organizations, and other channels have open discussion about sex related topics. One interesting example: Moon tv used to have a program called Sex School, and now a far more established channel has similar content. Hintikka live show has a sex position guide online among other things. This is not underground at all; in fact it is at the focal point of mainstream. This is an example that the discussion about sex has become more commonplace taking place in the pages of traditional women's magazines. Sex does not have to be brought up as a provocation anymore but instead it can be discussed in a correct manner.*

(Paalanen 2016)

According to the Sex shop owner (2016), in the mid-1990s Finnish magazines began to write about sex in a new way. The writings entailed open discussion about sexuality and female pleasure without provocation. In a world before the Internet, information provided by the mainstream magazines had an enormous impact directly to the sale of sex toys.

*When women's magazines such as Regina started to write stuff like how to grab a penis, it was huge because they talked about sex in an everyday manner, not in a sensation seeking way.*

(Sex shop owner 2016)

Sexuality became a part of our everyday life because of the way it was openly discussed in the media. The increased visibility of sex toys in the media lead eventually to easier availability of these products moving sex toys from the marginal to mainstream. A more recent phenomenon: the appearance of sex toys in everyday contexts such as grocery stores and pharmacies has helped to make sex toys acceptable.

*The fact that sex toys are becoming an ordinary product is a good thing, like when you go out to purchase food you see a vibrator in the grocery store. There is nobody to offer you advice in a grocery store but seeing the sex toys there can help you to overcome the threshold of entering a specialized sex shop. It helps to remove the negative beliefs when people see sex toys being sold in the same places as everyday items.*

(Sex shop owner 2016)

*... when pharmacies and Citymarket have sex toys for sale, and also R-kioski has vibrating penis rings available alongside condoms. When sex toys start to be available here and there without a hassle – then yes it makes things easier and if you think about lubrication, it starts to be available almost in convenience stores. This means you do not have to go into a specialized store but just throw the product among the rest of your purchases and other people might not even notice what you have in your trolley. It makes the displaying, purchasing, and using of these products a part of everyday life.*

(Paalanen 2016)

When mainstream media discussed sexuality more openly in the public, individuals also started talking about sexuality more openly among friends and family. The fact that

individuals could share their experiences with friends and family made the purchasing of sex toys easier.

*...if you can talk among friends and share experiences and give tips – hey, I tried this and it was pretty fun, the other person might get an idea from that to try sex toys as well. When talking about sex toys among friends becomes commonplace it lowers the barriers – it is not a big deal anymore and if someone has hesitated, and a friend tells about their experiences or encourages, it makes the purchasing easier.*

(Paalanen 2016)

The liberal attitude environment, open discussion about sexuality both privately and publicly, and the increased availability of sex toys go hand in hand with the diminished taboo associated with sex toys. The taboo attached to sex toys was still prevalent in the 1990s, but today buying and using sex toys is considered normal.

*Today owning a vibrator or a dildo is normal for women, but older generations may feel that it is something secretive. Young women do not consider vibrators as anything special but rather think that everybody has one, although, they are not always openly talked about or very few would leave them in plain sight in their homes for others to see, so in that way they are a sort of a semisecret. When talked about in coffee table conversations most can admit owning or having tried a sex toy. In these occasions, it is possible to share experiences, so in that way it is not something secretive.*

(Paalanen 2016)

Although younger people feel at ease talking about sex toys, the taboo attached to sex toys has not completely disappeared. Many sex toys such as male masturbation devices still suffer from the taboo attached to them. According to the Sex shop owner purchase embarrassment varies, and for example anal sex toys can be more embarrassing to buy than vibrators (Sex shop owner 2016).

*Male sex toys still have some secrecy left, products like penis rings are not considered stigmatizing but artificial vaginas are still a bit, well, people just do not talk about them that much. Maybe some of the flagship products like fleshlight or tenga have managed to bring the subject into the daylight. Heterosexual men have a need to present themselves in a certain way among their reference group and for this reason might think that using sex toys disperses their credibility. Questions like: what is this, is that normal, and is everything okay are more easily*



*asked. The men themselves get doubts even though their friends do not consider it a big deal that someone has a fleshlight in their night drawer.*

(Paalanen 2016)

Popular culture is the source of variety of sexual lifestyles, which in turn are commodified by the sex toy industry. According to Paalanen (2016), the Internet accelerates this phenomenon by providing and easy access to the newest trends. Popular culture trends in their part increase the acceptability of different sexual activities.

*What is good about “50 Shades of Grey” phenomenon is that there had been sex toys for sale in Finland for a long time, but for a long time people thought that sm is always controlled violence. People had an image in their minds that originated from the Finnish porn magazines that were different compared to Playboy that had beautiful people. We had that bold guy who is beating on a woman with baggy tits- this is realism, but lacking aesthetics. 50 Shades enabled that ordinary people like you and me can have something....the whole sm was left out....role play...when two people have been in a relationship for 20 years it can spice up things for them.*

(Sex shop owner 2016)

The branding of sex toys is just as important as in any other product. The packing and design are important to women. There still exist a lot of products that have an old fashioned packing but the product is good. Women tend to avoid these products on the basis of the appearance (Sex shop owner 2016). According to Paalanen (2016), the design and functionality sometimes overlap. Materials such as glass and wood can be bad in terms of functionality but look beautiful.

*Design has a huge impact...It is (packing) same thing as a book cover or an album cover it sell the product...In Nordic countries women prefer beautiful toys with nice colors over realistic designs. If someone buys a vibrator for masturbating it does not have to look like a penis. Good design is something else than realism.*

(Sex shop owner 2016)

In the 1990s, nobody talked about sexual health and sex toys were sold solely with pleasure arguments (Sex shop owner 2016). According to Paalanen (2016) sexual health trend has been around for 10 years. He finds the trend two-folded, it is good if it helps to promote sexual health and raise awareness about sex aids but on the other hand it can act

as a “smoke screen” and a branding trick that sex toy retailers and manufacturers use to raise sales.

*Sexual wellness can also act as an illusion hiding the fact that very few people will buy sex toys or have sex because it is healthy for them...There are a good deal of sex shops that have branded themselves as sexual health and wellness stores.*

(Paalanen 2016)

Some sex shops act as sexual health advisors and take part in the training of healthcare professionals on the products available in sex shops. Sex shops have a segment of customers that buy a sex toy after a recommendation from a doctor or a sexual therapist. These people can sometimes benefit from the customer service they can receive in a physical store. (Sex shop owner 2016.) Several sex toys can be referred to as sex aids. They enable sex for elderly, people with disabilities, and for people who suffer from a chronic or a long-term illness. Sex aids are bought from sex shops as pharmacies have smaller selections and their sales personnel might not be experts on sex toys. (Paalanen 2016.) Toys that can be considered more as sex aids are usually good quality, and their design process has often included sexual health experts (Paalanen 2016).

*Thinking in terms of sex aids rather than sex toys is quite new in this business, but there is slow progress in this matter. Sex aids can greatly benefit elderly, and people who suffer from disabilities or long term-illnesses. If the sex toy selection starts to include products that take into consideration these groups, like providing details such as good quality hand grips designed for special needs.*

(Paalanen 2016)

Although the attitudes towards sexuality have changed into more liberal, purchasing sex toys can still raise fears and doubts. Both of the interviewees mentioned shame or embarrassment as an obstacle for purchasing sex toys especially from a physical sex shop, among elderly people, and people living in rural areas (Sex shop owner 2016; Paalanen 2016). Even if the person is not embarrassed, the lack of knowledge can be an obstacle for the purchase. People who do not consider anal sex as taboo have a lot of questions about how they should start practicing it. Finding accurate information can be hard due to the vast amount of misinformation online (Sex shop owner 2016). The fears and doubts are especially connected to online sex shops and tend to be quite irrational (Paalanen 2016).

*There are some old-fashioned fears that have to do with the Internet. People think that an online sex shop is somehow shady and you cannot give your credit card information because you never know what Russian mafia the money is going to. It is a fear that everything that has to do with sex is suspicious business and it is dangerous to give your information to sex shops. People fear that the information will end up in wrong hands or that someone will find out.*

(Paalanen 2016)

According to Sex shop owner (2016), the Internet sales of sex toys exploded around 10 years ago. Selling sex toys online has some drawbacks. The biggest problem is how the customer can find the suitable product for him- or herself (Sex shop owner 2016).

*Sex toys are notoriously individual, you can sell socks to anyone, but sex toys do not necessarily serve their purpose if they do not fit your anatomy or are the wrong size or shape and this way left unused.*

(Paalanen 2016)

*The problem with the webstore is that a product of this size and that size look the same even though the description says 2 centimeters and 6 centimeters plus there does not exist so many adjectives that I could describe the products in a way that you could make the best purchase decision possible.*

(Sex shop owner 2016)

According to the Sex shop owner (2016), physical stores can provide added value through customer service, but also a place where you can see the products in real life. Seeing the products has become increasingly important for customers, as the prices of the toys have gone up.

*There is a certain added value in the fact that you have the opportunity to touch the samples. If you choose solely on the basis of a picture you might not get as accurate impression of the product.*

(Paalanen 2016)

#### **4.3.2 A belief elicitation study**

A belief elicitation study is recommended before the final survey when using the TPB. The purpose of the elicitation study is to find out the modal salient beliefs. The findings from the study will help to form the belief statements for the final questionnaire. (Fishbein

& Ajzen 1975, 218.) The belief elicitation study questionnaire is presented in Appendix 1. The questionnaire had three sections, consistent with the TPB, asking open-ended questions about behavioral outcomes, social referents, and facilitators and barriers for the purchasing of sex toys.

In the elicitation study, 42 respondents, 17 female and 25 male, participated. Most of the respondents were under 30 years old (70%) as a large part of the sample consisted of university students. Also when approaching pedestrians in the park, younger people were more willing to take part in the study. In previous research younger age groups were more willing to answer questions involving sexual content (De Jong et al. 2012, 544, 559). The characteristics for the belief elicitation sample are shown in Table 4.

Table 4 Characteristics of belief elicitation sample (N=42)

Variable		%	n
Gender	Men	60	25
	Women	40	17
	Total	100	42
Age	20-29	70	30
	30-39	15	6
	40-59	5	2
	50-67	10	4
	Total	100	42

In the first section of the study questions related to behavioral beliefs were asked. The negative and positive outcomes from the purchasing of sex toys were asked with open-ended questions (Ajzen 2013, 9; Francis et al. 2004, 14.) The positive outcomes that respondents associated with the purchasing of sex toys were explored by identifying common themes in the data. Five themes that resulted an item in the final questionnaire were found: variation (n=28), play (n=27), pleasure (n=14), relationship (n=8), and sexual problems (n=3). The themes and the resulting items are shown in Table 5.

Most frequently mentioned positive theme was variation that resulted items: spice up sex life, make sex better, bring variation, and make sex versatile. The theme play resulted three items: bring new experiences, make sex exciting, and be fun. The theme pleasure had answers regarding pleasure in general: *“Would increase pleasure”* and pleasure received when masturbating: *“Better quality fun with myself”*. Pleasure resulted two items in the final questionnaire: increase my pleasure and increase my partner’s pleasure.

Table 5 Resulting survey items for positive behavioral beliefs

Theme	n	%	Resulting an item (Buying sex toys would...)
Variation	28	67	...spice up sex life ...make sex better ...bring variation ...make sex versatile
Play	27	64	...bring new experiences ...make sex exciting ...be fun
Pleasure	14	33	...increase my pleasure ...increase my partner's pleasure
Relationship	8	19	...deepen relationship with partner ...enhance my relationship ...help me getting to know my partner
Sexual problems	3	7	...help with sexual arousal problems ...help with sexual dysfunctions

Answers that mentioned partner or potential partner such as: “*Growing closer with my partner*”, were gathered under the theme relationship. Relationship theme resulted three survey items: deepen relationship with partner, enhance my relationship, and help me getting to know my partner. Only few respondents mentioned that sex toys could help with sexual problems. This could be due to sampling or social desirability bias. The majority of the sample consisted of young adults that do not suffer from sexual problems as often as elderly individuals. Also, respondents might have been reluctant to admit sexual problems. According to the findings from the expert interviews, sex toys are used for helping with sexual dysfunctions (Sex shop owner 2016, Paalanen 2016). Therefore, two items concerning sexual problems were added into the survey, despite the low frequency of responses that mentioned the subject. The items were: help with sexual arousal problems and help with sexual dysfunctions. Some respondents did not use nor wanted to use sex toys. For this reason they saw no positive outcomes for purchasing sex toys: “*Nothing, because I do not need any*”. These answers were gathered under the theme nothing (n=11), which resulted no survey items.

The negative outcomes for the purchasing of sex toys were explored. Four themes with negative behavioral beliefs were identified: nothing (n=18), embarrassment (n=15), partner's negative reaction (n=7), and fears about the use of sex toys (n=8). The most common answer, nothing did not result any survey items. Embarrassment was often mentioned in the context of someone seeing the individual while shopping for sex toys: “*It would be embarrassing if people I know would see me shopping for geisha balls*”.

Embarrassment resulted into three items in the questionnaire: make me feel ridiculous, stigmatize me as weird, and be embarrassing.

Answers such as: “*My partner could consider the suggestion weird*” and “*My partner might have a negative reaction to some sex toys when the purchase has not been agreed together in advance*” were gathered under the theme negative reaction from partner. It resulted two survey items: lead to a negative reaction from partner and cause arguments with partner. The fears about the use of sex toys resulted four survey items: be painful to use, spoil the mood during sex, make pleasure dependent on them, and lead to constant masturbation. The themes and resulting survey items for negative behavioral beliefs are shown in Table 6.

Table 6 Resulting survey items for negative behavioral beliefs

Theme	n	%	Resulting an item (Buying sex toys would...)
Embarrassment	15	36	...make me feel ridiculous ...stigmatize me as weird ...be embarrassing
Fears about the use of sex toys	8	19	...be painful to use ...spoil the mood during sex ...make pleasure dependent on them ...lead to constant masturbation
Partner’s negative reaction	7	17	...lead to a negative reaction from partner ...cause arguments with partner

There were 9 behavioral beliefs elicited with an unfavourable outcome and 14 behavioral beliefs elicited with a favorable outcome. Six additional items on the basis of previous research and expert interviews were added into the questionnaire. Negative item: I would prefer not to talk about sex toys in public, was added to measure the extent that sex toys are a conversational taboo (Kim et al. 2004, 551–552; Katkanis 1994, 11). Two items related to sexual health were added: help me to get an orgasm and help me to exercise pelvic muscles (Herbenick et al. 2011, 340; Sex shop owner 2016). Three items: would increase interest in sex, would increase sexual desire, and would increase amount of sex were added to measure the extent that sex toys could help with the lack of sexual desire (Kontula 2008).

In the second section of the belief elicitation study normative beliefs related to subjective norms were explored. Open-ended questions asked the respondents to name individuals or groups who would approve or disapprove the respondents’ purchase of sex toys. (Ajzen 2013, 12; Francis et al. 2004, 18.) The same group or individual could be mentioned as approving and disapproving. For this reason, all the responses were analysed together. The following eight social influences were elicited: partner (n=18),

friends (n=18), parents (n=8), children (n=4), grandparents (n=4), siblings (n=4), and casual partners (n=2). Partner and friends were the most frequently mentioned groups. Most respondents named friends and partner as approving the purchasing of sex toys, but some respondents named them as non-approvers: *“partner – in some toys”, “Friends if I used for masturbation but if I used with a partner, it would be acceptable”*.

Members of the family were mentioned as approving or disapproving the purchasing of sex toys. However, the effect was mitigated by the fact that few would actually tell for example their grandparents: *“My grandmother (would disapprove), but I would never tell her”*. There were sixteen respondents (n=16) that answered nobody would disapprove or everybody would approve. An additional normative belief statement about healthcare professionals as normative referents was added on the bases of previous research and the expert interviews (Kontula et al. 2012, 36–37; Sex shop owner 2016; Ussher et al. 2013; Dyer & das Nair 2014).

In the third section of the elicitation study questions were asked about control beliefs related to perceived behavioral control. Two open-ended questions were asked; one asking to name factors that made the purchasing of sex toys easier, and another that asked factors that made the purchasing of sex toys more difficult. (Ajzen 2013, 13.) Five themes resulted in an item in the survey: knowledge (n=23), anonymity and privacy (n=20), money (n=13), embarrassment (n=9), and store and location (n=10). The same theme could be mentioned as a facilitating and impeding factor, for this reason all the data was analysed together.

Answers under the theme knowledge that mentioned things that made the purchasing of sex toys more difficult included: *“Not knowing which products are good”, “Bad or no descriptions”, “Lack of knowledge”, and “No experiences from products”*. Things that the respondents perceived as making purchasing sex toys easier were: *“A friend would recommend”, “Better reviews”, “Product tips”, and “Introducing the products in media”*. Answers regarding general awareness of sex toys such as: *“People would talk more about sex toys”*, were included in knowledge category. Answers that mentioned advertising: *“Targeted advertising” and “Better advertising”*, were included in knowledge category. Knowledge resulted in six survey items: better selection of sex toys, more knowledge about sex toys, better product descriptions in online stores, recommendations from friends, greater acceptance of sex toys in society, bad past experiences, more advertising, and testimonial from celebrities.

Table 7 Resulting survey items for control beliefs

Theme	n	%	Resulting an item (The following things would make the purchasing of sex toys harder/easier...)
Knowledge	23	55	...better selection of sex toys ...more knowledge about sex toys ...better product descriptions in online stores ...recommendations from friends ...greater acceptance of toys in society ...bad past experiences ...more advertising ...testimonial from celebrities
Anonymity & Privacy	20	48	...anonymous buying ...discreet delivery ...privacy and information security ...home delivery
Money	13	31	...improved personal finance situation ...special offers
Embarrassment	9	21	...I would not feel embarrassed ...other shoppers in the store ...acquaintances would see me
Store & Location	7	17	...sex shop close to other stores ...buying sex toys elsewhere than sex shops ...relaxed and open atmosphere in a sex shop ...customer service ...online shopping

Anonymity and Privacy included answers about the discreet delivery of the products: “*The package would indicate what the content is*”, “*Delivery into an automat*”, and “*Possibility for home delivery*”, and Internet privacy issues: “*If I order from an online store and I get banners into my private laptop screen*” and “*The web store would gather information about me*”. Anonymity and privacy resulted four survey items: anonymous buying, discreet delivery, privacy and information security, and home delivery. The theme money resulted two items: improved personal finance situation and special offers. The answers about embarrassment were all considered as making the purchasing of sex toys harder: “*People who knew me would see me shopping*” and “*Bystanders that would see me buying sex toys*”. Embarrassment resulted three items: I would not feel embarrassed, other shoppers in the store, and acquaintances would see me.

Location and the store itself were mentioned in answers such as: “*Wider selection in grocery stores*”, “*If they were sold in the same places that I normally shop in the web*”, “*There should be more sex shops, and they should not be in some shady alleyways, but*



*for example in shopping malls*”, “*New good online store*”, “*Sex shop near me*”, “*New stylized sex shop*”, and “*Department stores could sell these products*”. Location and store resulted four items: sex shop close to other stores, buying sex toys elsewhere than sex shops, relaxed and open atmosphere in a sex shop, online shopping and customer service. Themes and the resulting items for control beliefs are shown in Table 7.

There were 19 control beliefs elicited from the study and two additional control beliefs that measured consumer interest in ethically produced sex toys: possibility to purchase environmentally friendly sex toys and possibility to purchase ethically produced sex toys. Sex toy business is notorious for not having any legislation regarding materials or safety although sex toys are intimate products. Most sex toys can be considered as a special waste as they are mostly made of plastic and usually have electronics inside them. (Sex shop owner 2016.)

### 4.3.3 *Theory of planned behaviour questionnaire*

The final questionnaire measured the key constructs of the TPB and several demographic variables. The items in the questionnaire were formed according to the recommendations for the TPB questionnaire (Francis et al. 2004; Ajzen 2013). Purchase intention was measured with three statements such as: *I intend to purchase sex toys within the next six months*. The statements were answered with a semantic differential scale from 1=strongly disagree to 7=strongly agree with a marked middle point. (Ajzen 2013, 4; Francis et al. 2004, 11.) Attitude towards purchasing sex toys was measured with eight adjective pairs such as: *useless-useful* and answered with a semantic differential from 1 to 7. (Ajzen 2013, 5; Francis et al. 2004, 13.)

Attitude was measured indirectly with 29 behavioral belief statements and their outcome evaluations. Behavioral beliefs such as: *The purchasing of sex toys within the next six months would spice up my sex life* were answered with a semantic differential scale from 1=extremely unlikely to 7= extremely likely. Outcome evaluation statement such as: *How important is a spicy sex life to you* were answered with a semantic differential scale from 1=Not at all to 7=Very important. (Ajzen 2013, 9.) Respondents were asked to select three of the most personally important beliefs to them out of the 29 behavioral beliefs (Armitage & Conner 1998, 1433; Van der Pligt & de Vries, 1998, 13). In two studies about attitudes towards condom use and smoking, the results showed that individually selected, important attributes were recalled better and retrieved more easily than less important attributes (Harreveld et al. 2000, 363).

Subjective norm was measured with three injunctive statements (i.e. what others think one should do) such as: *Most people who are important to me would not accept/accept if I bought sex toys*, answered with a semantic differential scale from 1 to 7. Also, one

descriptive statement (i.e. what most people do) (Sheeran & Taylor 1999, 1628) was asked: *I think that most of my friends have bought sex toys*, answered with a semantic differential scale from 1=Not accurate to 7=Accurate (Ajzen 2013, 6). Subjective norm was measured indirectly via eight normative beliefs and motivation to comply. Normative beliefs such as: *How much the opinion of your partner affects your decision to buy sex toys* were answered with a semantic differential scale from 1=Not at all to 7=Very much. Motivation to comply was measured with statements such as: *How important do you consider the opinion of your partner when making decision in general*, and answered with a semantic differential scale from 1=Not at all to 7=Very important. (Ajzen 2013, 12.) Respondents were asked to select three of the most personally important normative beliefs (Armitage & Conner 1998, 1433; Van der Pligt & de Vries 1998, 13).

Perceived behavioral control was measured with three statements such as: *It is up to me to decide whether I buy sex toys*, answered with a semantic differential scale from 1=Strongly disagree to 7=Strongly agree (Ajzen 2013, 7). Perceived behavioral control was measured indirectly with control beliefs and perceived power. Control belief statements such as: *Anonymity would make the purchasing of sex toys much harder/much easier* were answered with a semantic differential scale from 1 to 7. Perceived power statements such as: *I believe that during the following six months my anonymity is secured if I bought sex toys* were answered with a semantic differential scale from 1=Strongly disagree to 7= Strongly agree. (Ajzen 2013, 13.) Respondents were asked to select personally three of the most personally important control beliefs (Armitage & Conner 1998, 1433; Van der Pligt & de Vries 1998, 13).

In addition, eleven background questions such as age and gender were asked from the respondents. The purchase and usage habits of the respondents regarding sex toys were asked in five items in the survey. The survey was piloted and tested by the researcher's acquaintances. Comments were asked about the wording, formatting, the length of the questionnaire, if the questions were understandable, and if the statements felt too repetitive. Changes were made to the phrasing of the statements and the layout. (Francis et al. 2004, 26–27.)

#### **4.4 Analysis of validity and reliability**

In this section, the validity and the reliability of the study are investigated. First, the reliability and validity of the qualitative phase are evaluated. After which, the reliability and validity of the quantitative phase of this study are analysed.

#### **4.4.1 *Validity and reliability in the qualitative phase***

In the qualitative part of the study, two expert interviews were conducted in order to gain deeper understanding of the phenomenon. A belief elicitation study was conducted in order to get consumers salient beliefs. In the elicitation study, a standard questionnaire with open-ended questions recommended by the authors of the TPB was used. The problem with the open-ended questions is that people are more prone to leave empty answers. The data of this study also suffered from blank answers. The aim of the elicitation study was to get soft data, thus all the respondents were included into the data, even if they had several blank answers. A small price was drawn among participants of the elicitation study in order to motivate people to answer the questionnaire. (Heikkilä 2014.)

The interpretation of the data is the most crucial part of qualitative research. The theming of the answers from the belief elicitation study was straightforward because of the standard questionnaire. The interview data was harder to interpret, as it was in the form of informal conversation. The interpretation of the interview data was congruent with elicitation study results, previous research, and literary review. This kind of triangulation of the data ensured that the interpretations are not invented or pulled out of context by the researcher (Pyörälä 1995, 15). The validity of the belief elicitation study suffered from biased sampling. The majority of the respondents in the elicitation study were in the age coherent 20–29-year olds. Thus, the sample of the elicitation study was not representative of the final survey sample that included 18–65-year olds respondents. For this reason, the beliefs elicited might not be representative of the population. However, the data from the elicitation study was congruent with previous findings and the interviews.

Miles and Hubermann (1994, 278) suggested that the validity and reliability of a qualitative study can be assured by: confirmability, dependability, credibility, and transferability. Confirmability of the study was assured by describing the methods and procedures in detail. In the belief elicitation study, some respondents answered the questionnaire online and some filled a paper version. The influence of the researcher was minimized in the situations where respondents filled the paper version, and the researcher left the immediate proximity of the respondent so that there was enough privacy for the respondent to answer the questionnaire. The fact that the elicitation questionnaire questions were drawn according to the TBP recommendations reduced research bias.

Dependability is the equivalent of reliability in a quantitative research (Miles & Hubermann 1994, 278). The repeatability of elicitation study and interview data is ensured by reflecting and triangulating the data throughout the progress (Heikkilä 2014). The repeatability of the results was assured by using the standard elicitation study questionnaire. The data obtained from the elicitation study and expert interviews was

concurrent with other data and prior research confirming that the interpretations were not biased. (Miles & Hubermann 1994, 278.)

Credibility is the same as internal validity in the quantitative research. The triangulation strengthened the credibility of the study and the findings were congruent with previous research. (Miles & Hubermann 1994, 278.) Transferability is the same as external validity in quantitative research. The transferability of the expert interviews was narrowed into the context they were given. However, the use of TPB increased the transferability of the elicitation study. (Miles & Hubermann 1994, 279.)

#### **4.4.2 *Validity and reliability in the quantitative phase***

A quantitative study validity, in relation to study results, is examined through internal and external validity. Internal validity can be defined as how successfully the study measures what it is supposed to measure. The measurement instrument was based on the TPB and carefully developed through qualitative pre-research. The respondents answered the survey online without interference by circumstances and no researcher bias. The external validity of the study or generalization of findings to a larger population was confirmed by the fact that the findings were similar to the previous research, and by using a representative sample for the survey. (Metsämuuronen 2006, 55.)

The validity of the study was ensured by following the recommendations for the TPB questionnaires when drawing up the survey. Most of the questions in the survey were closed, which made the replying quick. The problem with closed questions is that people might give ill-judged answers. The questions concerning a particular topic were grouped together and in the beginning easy questions about background factors were asked. The questionnaire was tested with acquaintances of the researcher and experts in the field (the supervisors of the thesis and doctoral student Samuel Piha). Changes were made concerning the layout and wording of some questions. The final questionnaire was long due to the number of beliefs. This might have affected the response rate as longer the survey, lower the completion rate. The respondents could follow the progression of the survey from the bottom of the page with a bar that showed the percentage of the survey that was undone. (Metsämuuronen 2006, 64.)

The sensitive topic of purchasing sex toys raises special issues in validity as respondents might be reluctant to reveal private matters in a survey (de Jong et al. 2010, 20). For this reason, sensitive topics tend to suffer from social desirability bias, which can lead to lower response rates, higher item nonresponse rates, and larger measurement error in the form of misreporting (Tourangeau & Yan 2007, 862). Assuring the respondents about the anonymity of the survey reduced the effect of possible social desirability bias. The elicitation study and the survey questionnaire were accompanied by a cover letter,

which explained the voluntary, confidentiality, anonymity, purpose of the study, and the usage of the results. The researcher's email address was also included to accommodate any questions or concerns by the respondents. (de Jong et al. 2012, 544.) The respondents for the survey had the opportunity to answer the questionnaire alone anywhere anytime through Internet (Tourangeau & Yan 2007, 875). The usage of Internet based questionnaire made the moving of the data to statistical programs easy.

The analysis of the quantitative part of the research started with the investigation of beliefs. The unrelated beliefs were dropped from analysis before performing an EFA. The factorial structure and validity of the EFA were tested by conducting a CFA. The validity of the CFA was ensured with model fit indices, which all were within acceptable values. (Metsämuuronen 2006 601, 603.) The convergent validity of the CFA was established with calculating the average variance extracted (from now on referred to as AVE). The AVE values were acceptable, which means that the latent factor is explained by the observed variables. The discriminant validity was measured by calculating the square root of AVE, which were greater than inter-construct correlations. Discriminant validity ensures that latent variables (factors) are separate of each other and that the variables from different factors do not correlate with each other. The latent factor could not be better explained by variables from other factors. (Hair et al 2010, 126.) The validity of multiple regression was ensured by investigating correlations between TPB constructs, which were adequate. The sample for the survey was representative of the population enabling generalizations to the whole population.

The reliability of the quantitative survey was assured by using at least three items in the measurements scale for attitude, subjective norm, perceived behavioral control, and purchase intentions. The participants were not offered *I do not know* option, but a marked middle point, which increases the reliability of the measurement instrument. Reversed items were included in the study to increase reliability. (Metsämuuronen 2006, 102.) Cronbach's alpha was calculated for all the scales. The internal consistencies for attitude, subjective norm, perceived behavioral control, and purchase intentions scales held a high degree of internal consistency. The reliability of the CFA was ensured with calculating composite reliability (from now on referred to as CR). The CR assesses the reliability and internal consistency of a latent construct. All of the factors had an acceptable CR value over the required 0.7 (Hair et al. 2010, 126.). The study contained 521 respondents. This is enough for a national consumer research study (Heikkilä 2014).

## 5 RESULTS

### 5.1 Sample profile

From the total of 556 survey respondents, 521 were included in the final analysis. Due to the large number of missing values, 35 respondents were removed from the analysis. The characteristic of the sample, as a percent of respondents, is displayed in Table 9. Gender distribution was even with 262 males and 255 females. Age was classified into three groups: 18–34-year olds, 35–50-year olds, and 51–65-year olds. The groups were named: young adults (n=169), middle-aged (n=179), and mature adults (n=166). The sample followed the age and gender distribution of the Finnish population (Table 8).

Table 8 Sample profile for survey versus general population

Age x Gender	Population	Survey
Male, 18–34-year olds	17.7%	16.1%
Male, 35–49-year olds	15.4%	17.8%
Male, 50–65-year olds	17.5%	16.9%
Female, 18–34-year olds	16.8%	16.5%
Female, 35–49-year olds	14.7%	15.5%
Female, 50–65-year olds	17.8%	17.3%
Total	99.9%	100.1%

Source: TNS Gallup

The variable income class had to be reclassified to better suit the data. The highest income class was changed from 100 000 to 60 000. According to the new classification, most of the respondents had an income between 10 000 euros and 29 999 euros (n=208) or 30 000 euros to 59 999 euros (n= 177). Only 43 respondents had an income over 60 000 euros (n=43) and 72 respondents lower than 9999 euros. The question for current relationship status included an open-ended answering option. Open-ended answers single, divorced, separated, not dating, and not in any relationship were coded into the category single. Over half of the sample was married or lived in the cohabitation with their partner (n=305) and 30% were single (n=153), and only 12% were dating (n=62). Almost half of the married or cohabitation respondents (n=187) had an over 10-year relationship. The dating respondents were mostly in relationships that had lasted under two years (n=40). People who are married or live in cohabitation with their partner have more often children living at home (n=124) than people who are dating (n=12) or single (n=19).

Table 9 Characteristics of survey sample (N=521)

			%	n
<b>Geographic</b>	Region of residence	Helsinki - Uusimaa	28	146
		Southern Finland	16	85
		Western Finland	33	174
		Northern and Eastern Finland	22	114
	Area of residence	Rural	21	111
		Urban	52	273
Suburban		26	134	
<b>Demographic</b>	Gender	Male	50	262
		Female	49	255
	Age	Young adults (18–34)	32	169
		Middle-aged (35–49)	33	170
		Mature adults (50–65)	34	175
	Relationship Status	Married or cohabitation	59	305
		Dating	12	62
		Single	29	153
	Relationship duration	Under two years	19	98
		Three to ten years	23	121
		Over ten years	39	202
	Children	No children living at home	70	362
Children living at home		30	155	
<b>Socioeconomic</b>	Education	Comprehensive school	7	34
		Upper secondary school or Vocational school	36	189
		College	17	88
		University of applied sciences	16	81
		University	24	124
	Income, euros	–9999	14	72
		10 000–19 999	20	102
		20 000–29 999	20	106
		30 000–39 999	17	87
		40 000–59 999	18	90
		60 000–	8	43
Current status	Employed or Entrepreneur	60	313	
	Student	8	40	
	Unemployed	14	71	
	Retired or Ill-health retired	15	76	
	Parental leave	2	11	
	Taking care of own household	2	9	

The majority of the respondents were from Uusimaa-Southern Finland (n=231) region and lived in an urban (n=273) setting. Major part of the respondents were either employed or entrepreneurs (n=313) and the most common education was upper secondary or vocational school (n=186), and a university degree (n=124).

The answers for multi-choice question about the usage of sex toys had to be reclassified. Three categories were created: at least once a month, few times per year or less, and not at all. At least once a month included answers: daily, weekly, and monthly. Few times per year or less including answers: less than once a year and a couple of times per year. The results for the use of sex toys are illustrated in Figure 6. Almost half of the respondents (47%) did not use sex toys at all, and one fourth of the respondents used them monthly (25%). The majority of the non-users were in the mature age group (41%) and the most frequent users were young adults (40%). In the mature women group, almost half (45%) did not use sex toys at all compared to the young adults group where only 20% were non-users. The same numbers were divided more equally among men as 36% of mature adults and 32% of young adults were non-users. The couples that have been together over 10 years used sex toys the least.

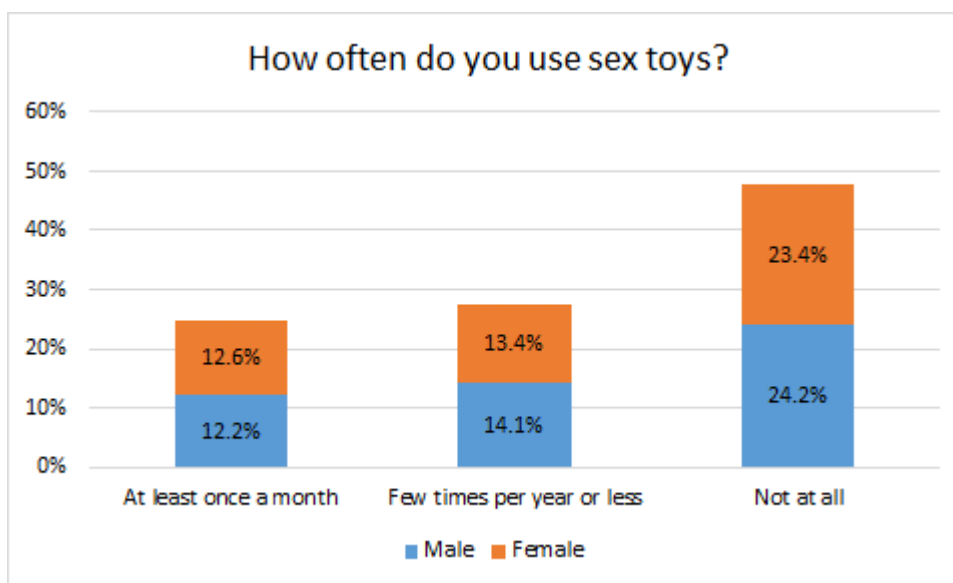


Figure 6 Frequency of using sex toys among the respondents (n=520)

The past buying behavior was reclassified into three categories: at least once a month, few times per year, and not at all. At least once a month included answers: daily, weekly, and monthly. Few times per year included answers: two-three times per month, once a month, a couple of times per year, and once a year. The gender distribution for the past buying behavior was even among males and females (Figure 7). In line with the use of sex toys, over half of the respondents (n=266) did not purchase any kind of sex toys. If the respondent had purchased sex toys, the frequency was less than once a year (n=154)



or few times per year (n=94). The largest group of non-buyers were the middle aged (43%). The most frequent buyers were the young adults. Among the young adults, 26% of women bought sex toys few times per year compared to the 22% of men, and 38% of women bought sex toys less than once a year compared to the 28% of men. The use and buying of sex toys was more equally distributed among men than women.

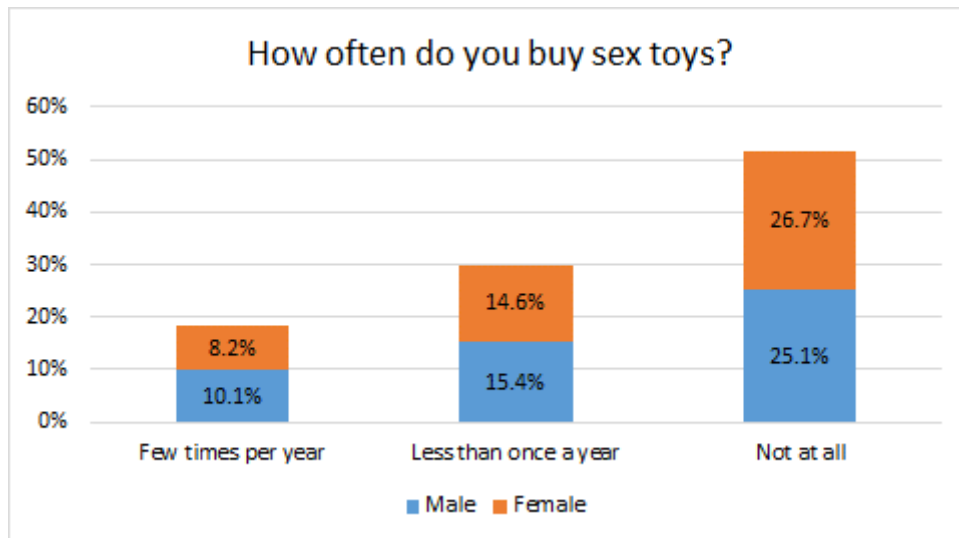


Figure 7 Frequency of buying sex toys among the respondents (n=514)

The question: Where have you purchased sex toys? had an open-ended answering option. According to the answers, two new categories were created, sex expo and in-home sex parties. The latter included answers such as product presenter, which was understood as a Tupperware type product presenter that comes to the consumer's home.

The most common place for buying sex toys was a specialized online store (42%), followed by Finnish brick and mortar sex shop (28%), pharmacy (9%), and grocery store (9%). Other online stores such as Amazon was mentioned only by 5% and sex shop abroad by 4%. A few percent of respondents mentioned in-home sex parties and sex expos as place of the purchase. The different places of purchase are shown in Figure 8.

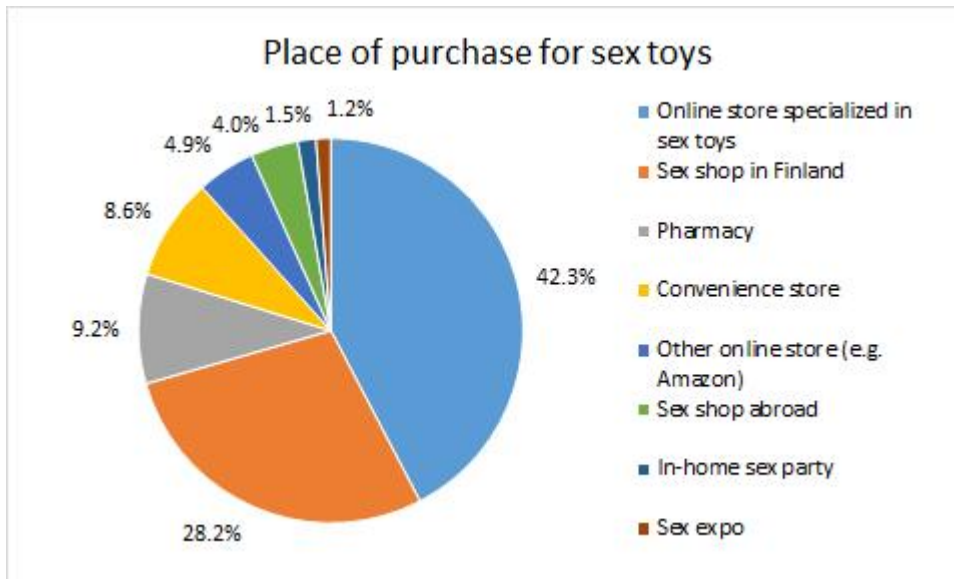


Figure 8 Place of purchase for sex toys (n=247)

Of all the respondents 20% had received sex toys as a present (Figure 9). Most of the respondents who had received sex toys as a present were females (13.7%). Open-ended answers: ex-husband or ex-partner for the question: Who gave you sex toys as a present? were coded into the category partner. It was assumed that the presents were given to the respondent while still in a relationship.

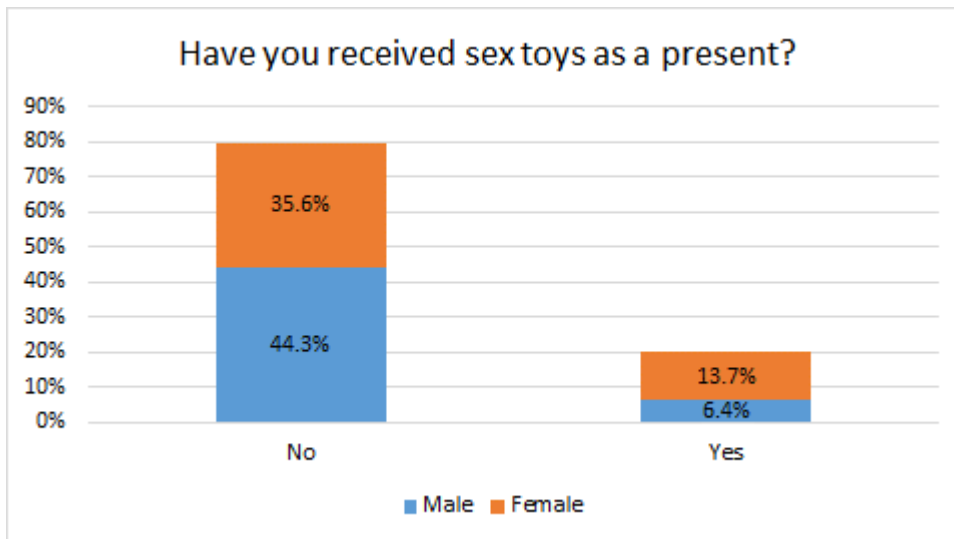


Figure 9 Frequency of respondents who have received sex toys as a present (N=521)

It is more common to give a sex toy as a gift to a partner than to a friend. Women seem to receive sex toys a present more often than men. There were 26 men and 55 women who had received a sex toy as gift from their partner and 15 men and 22 women who had

received as gift from their friend. The purchasing of sex toys for a gift is common and sex shops often describe Christmas as their best season (Marjaniemi 2015; Sex shop owner 2016).

## 5.2 Attitude towards purchasing sex toys

The overall measurement for attitude towards purchasing sex toys was assessed with eight adjective-pairs. Descriptive statistics for the adjective pairs is presented in Table 10. The overall attitude score was 4.2 indicating a slightly positive to neutral attitude towards the purchasing of sex toys (Table 10). The higher the score of an adjective pair, the more positively it contributed to the overall attitude.

Table 10 Attitude towards purchasing of sex toys (n=510)

Item	n	M	SD	$\alpha$
bad-good	498	4.3	1.47	
foolish-wise	497	4.1	1.40	
not important-important	510	3.5	1.70	
undesirable-desirable	498	4.2	1.46	
useless-useful	499	4.1	1.56	
unenjoyably-enjoyable	496	4.1	1.50	
unpleasant-pleasant	500	4.2	1.49	
unbeneficial-beneficial	497	4.3	1.34	
Mean total attitude		4.2	0.91	0.94

The adjective pair not important-important had the lowest mean (M=3.5) indicating a more negative attitude toward this statement among the respondents. This could indicate that sex toys are seen by most people as entertainment that can spice up sex life and bring variation but unimportant for them. The adjective pairs unbeneficial-beneficial and bad-good had the highest mean value (M=4.3). Respondents perceived purchasing of sex toys mostly being a good and beneficial thing. Cronbach's alpha for attitude scale was acceptable at 0.94.

### 5.2.1 Behavioral beliefs about purchasing sex toys

The behavioral belief items assessed the extent that respondents agreed that the purchasing of sex toys would result in specific positive or negative outcome. The outcome evaluation measures assessed the extent to which respondents agreed that the potential outcomes were important to them. There were 19 favorable outcomes where a higher score represents stronger agreement and a lower score represents stronger disagreement.

There were 10 unfavorable outcomes where a lower score represents stronger agreement and a higher score represents stronger disagreement. The negative items were reversed so the scores are the opposite of those from the favorable outcomes. The behavioral belief and outcome evaluation measures ranged from 1 to 7. The belief-base attitude score was retained by multiplying each behavioral belief by the outcome evaluation according to the following equation by Fishbein & Ajzen (1975, 399.)

$$A = \sum b_i e_i$$

A is the attitude towards the purchasing of sex toys

$b_i$  is the belief that the purchasing of sex toys will result in outcome i

$e_i$  is evaluation of outcome i

The weighted belief score ranged from 1 to 49. A higher score represents a positive contribution towards attitude for purchasing sex toys and a lower score represents a negative contribution towards attitude for purchasing sex toys. The respondents were asked to choose three of the most important beliefs to them out of the 29 behavioral beliefs. Table 11 shows the mean values for behavioral beliefs, outcome evaluations, the new weighted behavioral belief variable  $b_i e_i$ , and the personally important beliefs.

Personally important beliefs were explored and behavioral beliefs and their outcome evaluations were examined. Only few respondents mentioned beliefs: 6, 9, 10, 12, 18, or 23 as personally important. As only salient beliefs affect person's behavior, these beliefs were excluded from further analysis. These beliefs are marked with italics in Table 11. These personally unimportant beliefs were all negatives ones. The beliefs that were chosen as the most important were behavioral beliefs with a positive outcome. This indicated that sex toys are not strongly associated with negative beliefs. When picking three personally important beliefs, 32% of the respondents chose: bring variation as important, 26% chose: spice up sex life, 25% chose: make sex versatile, 21% chose: be fun, 19% chose: increase my pleasure, and 17% chose: increase my partner's pleasure. The negative beliefs chosen frequently as personally important were: be something I would prefer not to talk about in public (10%), and be embarrassing to buy (7%).

Table 11 Behavioral beliefs (N=521), outcome evaluations, weighted behavioral belief variables, and personally important behavioral beliefs

Behavioral beliefs	$b_i$	$e_i$	$b_i e_i$	Importance	
Buying sex toys would...	M	M	M	n	%
1. spice up sex life	4.43	4.66	22.76	106	25.8
2. help me to get an orgasm	3.96	4.80	20.22	48	11.7
3. make sex exciting	4.42	4.19	20.07	58	14.1
4. bring variation	4.80	4.58	23.65	134	32.6
5. bring new experiences	4.60	4.44	22.06	58	14.1
6. <i>make pleasure dependent on them</i>	5.30	5.59	30.73	9	2.2
7. increase my pleasure	4.31	4.94	22.56	74	18.0
8. increase my partner's pleasure	4.28	5.42	24.58	70	17.0
9. <i>be painful to use</i>	5.60	4.63	26.24	8	1.9
10. <i>lead to constant masturbation</i>	5.90	5.63	34.40	2	0.5
11. spoil the mood during sex	5.25	4.90	25.65	18	4.4
12. <i>lead to a negative reaction from partner</i>	5.26	5.08	26.30	8	1.9
13. make sex better	4.11	4.97	21.89	46	11.2
14. make sex versatile	4.58	4.87	24.19	101	24.6
15. make me feel ridiculous	5.16	4.71	23.93	20	4.9
16. deepen relationship with partner	3.69	5.64	21.46	30	7.3
17. help with sexual arousal problems (erection, vaginal dryness)	3.62	5.35	20.29	27	6.6
18. <i>stigmatize me as weird</i>	5.65	4.59	25.26	9	2.2
19. be embarrassing to buy	5.38	4.89	13.82	27	6.6
20. help me to exercise pelvic muscles	3.82	4.64	19.64	52	12.7
21. be fun	4.47	5.39	25.45	86	20.9
22. enhance my relationship	3.93	5.64	23.15	41	10.0
23. <i>cause arguments with partner</i>	5.52	5.49	30.38	5	1.2
24. help me getting to know my partner	3.54	5.29	19.57	14	3.4
25. increase interest in sex	3.70	4.81	19.20	40	9.7
26. increase amount of sex	3.50	4.71	17.79	28	6.8
27. be something I would prefer not to talk about in public	3.74	4.49	14.94	40	9.7
28. help with sexual dysfunctions such as pre- mature ejaculation or pain during intercourse	3.03	3.79	13.04	11	2.7
29. increase sexual desire	3.72	4.43	18.11	31	7.5
Mean total attitude	4.45	4.91	22.35	1201	297
Mean total attitude (6, 9, 10, 12, 18, 23 excluded)	4.16	4.85	20.88		

Note.  $e_i$ = outcome evaluation,  $b_i$ =belief i, importance as percent of cases (n=411)

The positive outcomes that the respondents agreed most likely to result from the purchasing of sex toys were: bring variation (M=4.80), bring new experiences (M=4.60), and make sex versatile (M=4.58). A negative outcome that the respondents agreed most likely to result from the purchasing of sex toys was: be something I would prefer not to talk about in public (M=3.74). The most highly evaluated positive outcomes, indicating how desirable the respondents perceived each outcome, were: increase my partner's

pleasure (M=5.42), make sex better (M=4.97), and increase my pleasure (M=4.94). The most highly evaluated negative outcomes were be something I would prefer not to talk about in public (M=4.49) and stigmatize me as weird (M=4.59). The weighted behavioral belief variables that had the biggest effect on attitude were: be fun (M=25.45), increase my partner's pleasure (M=24.58), and make sex versatile (M=24.19).

After excluding non-important beliefs, mean value for the sum of behavioral beliefs for purchasing sex toys was 4.16. Attitude score received from the weighted behavioral belief variables was 20.88 when excluding non-important items. This indicated a slightly negative or neutral attitude towards the purchasing of sex toys. After excluding the non-important beliefs, 23 behavioral beliefs formed the underlying attitude construct.

### **5.2.2 Factors affecting attitude towards purchasing sex toys**

EFA was performed by using maximum likelihood method with direct oblimin rotation through SPSS on 23 items from the survey for a sample of 521. The 23 weighted behavioral belief variable items were calculated by multiplying behavioral beliefs with the outcome evaluation. Prior to the analysis, the presence of outliers, absence of multicollinearity, normality, sample size, and correlations among variables were examined in SPSS. Among most variables, correlations were sufficient ( $>.30$ ) and not too high ( $>.90$ ) as this could be a sign of multicollinearity. The sample size of 521 was adequate ( $>300$ ). All the variables were measured at least with ordinal scale. The normality of the variables was examined in a histogram. Some of the variables were not distributed normally. The variables rarely are completely normally distributed in the social sciences but multivariate methods are robust enough to include them into the analysis. (Metsämuuronen 2003, 513–514; Metsämuuronen 2006, 598.)

The existence of outliers was examined with a boxplot. There were outliers in variables 11, 15, 19, and 28. Effect of outliers was estimated by comparing together variable average and trimmed average. As the effect was considerable, respondents with outliers were deleted from the analysis (Metsämuuronen 2006, 600–601). Variables 11, 26, 25, and 29 were removed from the analysis as they cross-loaded into several factors (Farrell 2010, 326; Costello & Osborne 2005, 138; Tabachnick & Fidell 2013).

The EFA was run again with the remaining variables. The communalities for the unfavorable outcomes (variables 27, 19, and 15) were low ( $<.30$ ) so they were excluded from the analysis. The results from the factor analysis is presented in Table 12. All factors with an eigenvalue over one were included into the results. The three extracted factors explained 61% of the total variance. Factor 1, playfulness explained 52%, factor 2, sexual wellness explained 5%, and factor 3, relationship maintenance 4% of the total variance. The communalities were from .34 to .87. The Kaiser test (KMO) was above the

recommended value 0.60 being 0.95 and Bartlett's Test had a significance of  $p < 0.0001$ . (Metsämuuronen 2006, 607.) Goodness-of-Fit test rejected the null hypothesis. This can be due to the large sample size ( $>500$ ) (Metsämuuronen 2006, 610–611).

Table 12 Exploratory factor analysis for attitude (N=521)

Factors	1	2	3	CO	Variance explained
Buying sex toys would...					
<b>Factor 1 Playfulness</b>					52%
1. spice up sex life	.86			.77	
14. make sex versatile	.86			.86	
5. bring new experiences	.82			.82	
3. make sex exciting	.91			.80	
4. bring variation	.93			.84	
21. be fun	.85			.76	
13. make sex better	.85			.82	
8. increase my partner's pleasure	.72			.62	
<b>Factor 2 Sexual wellness</b>					5%
20. help me to exercise my pelvic muscles		.54		.40	
2. help me to get an orgasm		.81		.69	
7. increase my pleasure		.73		.78	
28. help with sexual dysfunctions such as premature ejaculation or painful intercourse		.50		.42	
17. help with sexual arousal problems such as erectile dysfunction or vaginal dryness		.71		.65	
<b>Factor 3 Relationship maintenance</b>					4%
16. deepen relationship with partner			.82	.67	
22. enhance my relationship			.85	.73	
24. help me getting to know my partner			.72	.58	
Total variance					61%

Note. Factor loadings  $< .5$  are suppressed. CO=Communalities.

Cronbach's alphas were calculated for the items in each factor. Since all of the alpha values were over the acceptable value of 0.7, sum variables were created from the factor items (Nunnally 1978, 245). The descriptive statistics, alpha value, and belief-based attitude score for sum variables are depicted in Table 13. The belief-based attitude score was 21.17 indicating a slightly negative to neutral attitude towards the purchasing of sex toys.

Table 13 Descriptive statistics and Cronbach's alpha for attitude factors

Sum variable	Items	M	SD	$\alpha$
Playfulness (n=521)	8	23.21	11.79	0.96
Sexual wellness (n=521)	5	19.01	10.14	0.85
Relationship maintenance (n=518)	3	21.30	11.14	0.88
Attitude total	16	21.17		

A CFA was performed through SPSS AMOS on 16 items to examine the predictors for attitude. A three factor model of playfulness, sexual wellness, and relationship maintenance was hypothesized on the bases of the EFA. Variables 1, 3, 4, 5, 8, 13, 14, and 21 served as indicators of the playfulness factor. Variables 2, 7, 17, 20, and 28 served as indicators of the sexual wellness factor. Variables 16, 22, and 24 served as indicators of the relationship maintenance factor. The three factors were hypothesized to covary with one another.

The assumptions of multivariate normality and linearity were evaluated in SPSS. The sample size was adequate (>200) for a CFA (Metsämuuronen, 2006, 576, 618). An analysis of missing value patterns was performed in SPSS due to the sensitive of CFA as a method for missing values. Missing values were between 0.2 to 1.8 percent in a single variable. As the quantity of missing values was low and the values were missing at random, the missing values were replaced with mean values (Hertel 1976, 463). The analysis was ran in SPSS AMOS where the fitness indexes and residuals were examined. According to the modification indexes (MI), a poor model fit was caused by several redundant items. Post-hoc model modification was made to develop a better model. Several error terms in factor 1 and factor 3 were set to correlate with each other to improve the model fit. (Metsämuuronen 2003, 565–566.)

$\chi^2$ -test can evaluate the model fit, but the  $\chi^2$  value nearly always rejects the null hypothesis in large sample sizes (>500) (Metsämuuronen 2003, 560). To estimate if the null hypothesis rejected because of the large sample size, the Normed Fit Index (NFI) can be examined. If the value is above 0.90, the null hypothesis was rejected due to a large sample size. The NFI was 0.95, thus the null hypothesis was likely rejected because of the sample size. (Metsämuuronen 2006, 624.)

The normed  $\chi^2$ -value was then examined. Relative  $\chi^2$  was 4.18 when the acceptable value is less than 5 (Schumacker & Lomax, 2004). Furthermore, the Goodness-of-Fit Index (GFI), the Comparative Fit Index (CFI), and the Root-mean-square error of approximation (RMSEA) were all above the recommended values (Metsämuuronen, 2006, 626). All the fit indices are presented in Table 14.



Table 14 Model fit indices of confirmatory factor analysis for attitude

Name of Index	Value	Reference value	Reference
GFI	0.94	>0.90 Good fit	Metsämuuronen (2006, 626)
RMSEA	0.078	<0.08 Good fit	MacCallum et al. (1996, 134)
CFI	0.97	>0.95 Good fit	Metsämuuronen (2006, 626)
NFI	0.96	>0.90 Good fit	Metsämuuronen (2006, 626)
Chi-square/df	4.18	<5	Schumacker & Lomax (2004)

After the model fit was determined to be adequate, the t-test or Critical ratio (C.R) was examined for all the parameters. All C.R values were acceptable (>1.96). All factor loadings were high (>0.5) and significant for all constructs. The results for CFA are in Table 15. The results confirmed the three factor model gained from the EFA. The final factors were playfulness, sexual wellness, and relationship maintenance.

Table 15 Confirmatory factor analysis for attitude

Factors, items	Factor loading	S.E	C.R	R <sup>2</sup>
<b>F1 Playfulness</b>				
1. spice up sex life	.89			.79
3. make sex exciting	.83	.032	25.751	.69
4. bring variation	.85	.033	26.887	.73
5. bring new experiences	.82	.034	24.778	.67
8. increase to my partner's pleasure	.79	.038	21.959	.63
13. make sex better	.90	.030	29.582	.81
14. make sex versatile	.88	.032	28.751	.78
21. be fun	.91	.036	27.182	.82
<b>F2 Sexual wellness</b>				
2. help me to get an orgasm	.83	.033	24.845	.68
7. increase my pleasure	.99			.99
17. help with sexual arousal problems such as erectile dysfunction or vaginal dryness	.81	.040	19.889	.66
20. help me to exercise my pelvic muscles	.50	.052	10.408	.25
28. help with sexual dysfunctions such as premature ejaculation or painful intercourse	.51	.040	10.853	.26
<b>F3 Relationship maintenance</b>				
16. deepen relationship with partner	.86	.032	26.489	.73
22. enhance my relationship	.91			.82
24. help me getting to know my partner	.75	.036	21.262	.57
Total variance				

Note: Factor loadings were all significant at  $p < 0.001$ . Model fit: C Min/Df 4.18, GFI 0.94, NFI 0.96, CFI 0.97, RMSEA 0.078

The first factor named playfulness included items: spice up sex life, make sex versatile, bring new experiences, make sex exciting, bring variation, be fun, make sex better, and increase my partner's pleasure. All of the items loaded high (.79 to .91) into the playfulness factor and had high  $R^2$  values from .67 to .82. The second factor sexual wellness included items: help me to get an orgasm, increase my pleasure, help with sexual arousal problems, help me to exercise my pelvic muscles, and help with sexual dysfunctions. The last two items had lower factor loadings than the other three items. They also had low  $R^2$  values indicating that they did not explain the factor well. The third factor named relationship maintenance included items: deepen relationship with partner, enhance my relationship, and help me getting to know my partner. All of the factor loadings were high from .75 to .91 and the  $R^2$  values were adequate ranging from .57 to .82.

Table 16 shows the composite reliability (CR), average variance extracted (AVE), and correlations among factors. The three factors are referred with a number and the letter F in the table, playfulness (F1), sexual wellness (F2), and relationship maintenance (F3). All of the factors had an acceptable CR value over the required 0.7 (Hair et al. 2010, 126).

Table 16 Correlations, average variance extracted and composite reliability for attitude factors

	CR	AVE	F1	F2	F3
F1	0.9	0.74	<b>0.86</b>		
F2	0.7	0.57	0.82	<b>0.75</b>	
F3	0.8	0.71	0.85	0.66	<b>0.84</b>

The AVE values were 0.5 or higher so convergent validity was achieved (Hair et al. 2010, 126). In Table 16, the bolded diagonal values are the squared AVE values, underneath the diagonal are the correlations between factors. The squared AVE values were all higher than correlations with other factors. (Farrell 2010; Hair et al. 2010.)

### 5.3 Subjective norm for purchasing sex toys

The measurement of the subjective norm assessed the extent that the respondents perceived the purchasing of sex toys to be approved by the referents. The measurements of subjective norm and descriptive statistics are shown in Table 17. The mean total of subjective norm was 4.3, which indicates a neutral social approval for the purchasing of sex toys (Table 17). The Cronbach's alpha was acceptable at 0.83.

Table 17 Subjective norm for purchasing sex toys (n=519)

Item	n	M	SD	$\alpha$
Most people who are important to me would approve/disapprove my purchasing of sex toys	519	5.0	1.67	
I think that most of my friends have bought/have not bought sex toys	517	4.5	1.60	
People who are close to me would assume that I would buy/not buy sex toys	516	3.4	1.70	
Most people who are important to me think I should/should not buy sex toys	517	4.1	1.40	
Mean total subjective norm		4.3	1.25	0.83

The statement: Most people who are important to me would approve/disapprove my purchasing of sex toys had the highest mean score (M=5.0). Thus, contributing the most towards the subjective norm. The statement: People who are close to me would assume that I would buy sex toys had the lowest mean score (M=3.4). Thus, contributing the least towards the subjective norm.

The normative belief items assessed the normative influence of the respondents' referents and the motivation to comply assessed the extent that respondents are willing to comply with the referent. The normative belief and motivation to comply measures ranged from 1 to 7. There were eight referent groups: partner, friend, health-care professional, children, parents, siblings, grandparents, and casual partners. A higher score represents a stronger influence and a lower score represent weaker influence on the respondent by the referent. The belief-based subjective norm score was retained by multiplying normative beliefs with the motivation to comply according to the Fishbein and Ajzen equation (1975, 399.)

$$SN = \sum Nb_i Mc_i$$

$SN$  is subjective norm

$Nb_i$  is normative beliefs i

$Mc_i$  is motivation to comply with normative belief i.

The belief score ranged from 1 to 49. A higher score represented a higher influence on the respondent and a lower score represented a weaker influence. The respondents were asked to choose three of the personally most important beliefs out of all the eight normative beliefs. Table 18 shows the mean values for normative beliefs, motivation to comply, the new weighted control belief variable  $Nb_i Mc_i$  and the personally most important normative beliefs.

Table 18 Normative beliefs (N=521), motivation to comply, weighted normative belief variables, and personally important normative beliefs

Normative beliefs	$Nb_i$ M	$Mc_i$ M	$Nb_iMc_i$ M	Importance n	%
1. partner	5.14	5.40	30.09	365	90.3
2. friends	2.59	3.72	10.95	248	61.4
3. healthcare professionals	3.32	3.90	15.02	230	56.9
4. <i>children</i>	1.86	2.99	6.44	87	21.5
5. <i>parents</i>	1.70	2.96	5.69	41	10.1
6. <i>siblings</i>	1.85	2.84	6.28	40	9.9
7. <i>grandparents</i>	1.60	2.19	4.37	30	7.4
8. <i>casual partners</i>	2.25	1.99	5.89	14	3.5
Mean Total	2.54	3.25	10.59	1055	261
Mean total (1, 2, and 3)	3.68	4.33	18.69		

Note. Importance mentions as percentage of cases (n=404)

Three groups were chosen as personally important above the rest: partner, friends, and healthcare professions. Partner was chosen by 90% of the respondents as the most important normative reference. Friends were chosen by 61% of the respondents and healthcare professionals were chosen by 57% of the respondents as the most important reference group. This would indicate that only these three groups are salient to the respondents. So the rest of the groups were excluded from further analysis. The excluded groups are marked with italics in Table 18. The same three groups were perceived as having the most influence over the decision to purchase sex toys. Partners' (M=5.14) influence was clearly the most important followed by healthcare professionals (M=3.32) and then friends (M=2.59). The order was the same, partner (M=5.40), healthcare professionals (M=3.90), and friends (M=3.72) in the motivation to comply variable.

Casual partners opinions seem to matter in relation to purchasing sex toys (M=2.25) almost as much as friends' opinions, but the overall influence of their opinion (M=1.99) was small. According to the weighted normative belief variables the influence of partner (M=30.09) attributed the most to the subjective norm followed by healthcare professionals (M=15.02) and friends (M=10.95). With all the eight groups taken into account the belief-based measurement for subjective norm was 10.59 indicating that the overall impact of these groups is small. The belief-based measurement for subjective norm when only the three most important groups were considered was higher at 18.69. The excluding of family related groups made the normative influence higher as sex toys are not talked about with instances such as children and grandparents. An EFA was applied on the subjective norm data, but the factors extracted were hard to interpret.

## 5.4 Perceived behavioral control for purchasing sex toys

The perceived behavior control was 5.9 indicating high perceived behavioral control (Table 19). Table 19 shows the descriptive statistics and results for perceived behavioral control. The Cronbach's alpha value was acceptable at 0.85.

Table 19 Perceived behavioral control for purchasing sex toys (n=518)

Item	n	M	SD	$\alpha$
The purchasing of sex toys is completely up to me	518	5.64	1.82	
It is possible for me to purchase sex toys	516	5.79	1.69	
If I wanted I could purchase sex toys	517	5.75	1.81	
Mean total perceived behavioral control		5.9	1.26	0.85

### 5.4.1 Control beliefs for purchasing sex toys

The control belief items assessed the extent that the control beliefs influence purchasing sex toys. The control belief items ranged from 1 to 7. Higher score represented a stronger perceived control. A lower score represented a weaker perceived control. The perceived power items assessed the respondents' subjective probability that the factor is present. The perceived power items ranged from 1 to 7. A higher score represented stronger facilitation for purchasing of sex toys. A lower score represented a stronger inhibition for purchasing of sex toys.

The belief based measurement for perceived behavioral control is computed by multiplying control beliefs with the perceived power according to the equation (Ajzen 2015, 129.)

$$PBC = \sum Cb_i Pp_i$$

PBC is perceived behavioral control

$Cb_i$  is control beliefs i

$Pp_i$  is perceived power for belief i

The weighted belief score ranged from 1 to 49. A higher score represents a positive contribution toward perceived behavioral control. A lower score represents a negative contribution toward perceived behavioral control. The respondents chose the most important control beliefs for them out of all the 24 control beliefs. Table 20 shows the control beliefs, perceived power, the weighted control belief variable  $Cb_i Pp_i$ , and the personally most important control beliefs.

Table 20 Control beliefs (N=521), perceived power, weighted control belief variables, and personally important control beliefs

Control beliefs	<i>Cb<sub>i</sub></i>	<i>Pp<sub>i</sub></i>	<i>Cb<sub>i</sub>Pp<sub>i</sub></i>	Importance	
	M	M	M	n	%
1. improved personal finance situation	4.62	3.60	16.79	115	31.7
2. anonymous buying	4.51	4.52	20.64	98	27
3. recommendations from friends	3.97	2.39	10.06	47	12.9
4. special offers	4.35	3.70	17.23	83	22.9
5. discreet delivery	4.59	4.24	20.49	97	26.7
6. home delivery	4.15	3.98	17.71	45	12.4
7. more advertising	3.68	4.30	16.48	17	4.7
8. sex shop close to other stores	3.73	2.62	10.72	30	8.3
9. buying sex toys elsewhere than sex shops	3.97	2.73	11.66	17	4.7
10. online shopping	4.88	3.23	17.15	105	28.9
11. better selection of sex toys	4.31	3.92	18.03	37	10.2
12. greater acceptance of sex toys in society	4.27	3.82	17.19	27	7.4
13. more knowledge about sex toys	4.32	3.44	15.57	46	12.7
14. environmentally friendly sex toys	3.81	3.44	13.97	19	5.2
15. better product descriptions in online stores	4.31	3.71	16.84	35	9.6
16. acquaintances would see me	2.98	4.13	12.56	9	2.5
17. I would not feel embarrassed	4.10	4.07	16.75	33	9.1
18. privacy and information security	4.50	4.24	19.99	42	11.6
19. <i>testimonials from celebrities</i>	3.32	3.21	11.48	6	1.7
20. customer service	4.04	3.63	15.85	38	10.5
21. other shoppers in the store	3.37	4.01	14.22	11	3.0
22. relaxed and open atmosphere in a sex shop	4.57	3.43	16.80	61	16.8
23. <i>bad past experiences</i>	3.29	2.47	8.73	5	1.4
24. ethically produced sex toys	3.73	3.39	13.50	14	3.9
Mean total	4.06	3.66	14.59	1039	286
Mean total (variables 19 and 23 excluded)	4.13	3.59	15.92		

Note. Importance as percent of cases (n=363)

The personally important beliefs, the control beliefs and the perceived power were examined. Beliefs 19 and 23 were excluded for further analysis as they were chosen only by few of the respondents as personally important to them. These beliefs are marked with italics in Table 20. The control beliefs that were chosen as personally important by the respondents were: improved personal finance situation chosen by 32% of the respondents, online shopping chosen by 29% of the respondents, anonymous buying chosen by 27% of the respondents, and discreet delivery chosen by 27% of the respondents. Control beliefs that were seen as facilitating factors for the purchasing of sex toys were: online shopping (M=4.88), improved personal finance situation (M=4.62), discreet delivery (M=4.59), relaxed and open atmosphere in a sex shop (M=4.57), anonymous buying (M=4.51), and privacy and information security (M=4.50).

Control beliefs that were perceived as making the purchasing of sex toys harder were: acquaintances would see me (M=2.98), other shoppers in the store (M=3.37), and sex shop close to other stores (M=3.73). From the weighted control belief variables the most important were: anonymous buying (M=20.64), discreet delivery (M=20.49), and privacy and information security (M=19.99). The mean total of the belief-based measurement of perceived behavioral control was 14.59 and after excluding variables 19 and 23 it was 15.92 indicating low perceived behavioral control.

#### ***5.4.2 Factors affecting perceived behavioral control for purchasing sex toys***

EFA was performed with the weighted control belief variables calculated by multiplying control beliefs with perceived power. Assumptions for EFA were examined before performing factor analysis. Correlations among variables were sufficient ( $>.30$ ) among most variables, but not too high ( $>.90$ ). The sample size was adequate ( $>300$ ). All the variables were measured at least with ordinal scale. The normality of the variables was examined in a histogram. Some of the variables were not distributed normally, but this was expected as the variables measured sensitive issues. (Metsämuuronen 513–514 2003; Metsämuuronen, 2006, 598.) The existence of outliers was examined with a boxplot. Outliers were found in all of the variables, except in variables 22, 5, and 10. Effect of outliers was estimated with comparing variable average and trimmed average together. Respondents with most extreme outliers were removed from the analysis (Metsämuuronen, 2006, 600–601).

After the assumptions were met factor analysis was performed by using maximum likelihood method and direct oblimin rotation (Metsämuuronen 2006, 607). The results showed that variables 1, 4, and 7 had low communalities ( $<.30$ ) and variable 3 cross loaded high ( $>0.3$ ) into several factors (Costello & Osborne, 2005, 4; Tabachnick & Fidell, 2013). These variables were removed from the analysis.

The initial solution of three factors was hard to interpret and factors four and five were close to having an eigenvalue of one (0.96 and 0.76). A forced five factor model was tried. A solution with five factors had communalities from 0.51 to 0.93. The five extracted factors explained 62% of the total variance. Factor 1 explained 42%, factor two 9%, factor three 5%, factor four 4%, and factor five 2% of the total variance. The Kaiser test (KMO) was above the recommended value of 0.60 (0.93) and Bartlett's Test had a significance of  $p<0.0001$ . (Metsämuuronen 2006, 607). Goodness-of-Fit test rejected the null hypothesis, but this can be due to the large sample size ( $>500$ ) (Metsämuuronen 2006, 610–611). Table 21 shows the results of the EFA.

Table 21 Exploratory factor analysis for perceived behavioral control (N=521)

Factor, items	1	2	3	4	5	CO	VA
<b>Factor 1 Knowledge</b>							42%
11. better selection of sex toys	.80					.66	
15. better product descriptions in online stores	.76					.70	
12. greater acceptance of sex toys in society	.65					.55	
13. more knowledge about sex toys	.62					.51	
<b>Factor 2 Privacy</b>							9%
5. discreet delivery		.92				.85	
18. privacy and information security		.75				.68	
10. online shopping		.63				.61	
2. anonymous buying		.75				.58	
6. home delivery		.69				.54	
<b>Factor 3 Location</b>							5%
8. sex shop close to other stores			.86			.76	
9. buying sex toys elsewhere than sex shops			.71			.60	
<b>Factor 4 Embarrassment</b>							4%
21. other shoppers in the store				.83		.70	
16. acquaintances would see me				.72		.52	
17. I would not feel embarrassed				.70		.55	
20. customer service				.73		.60	
22. relaxed and open atmosphere in a sex shop				.61		.55	
<b>Factor 5 Ethics</b>							2%
14. environmentally friendly sex toys					.96	.93	
24. ethically produced sex toys					.93	.86	
Total variance explained							62%

Note: CO=communalities, VA= Variance explained

The factors were named: knowledge, privacy, location, embarrassment, and ethics. Cronbach's alphas were calculated for the items in the each factor. Since all of the alpha values were over the acceptable value of 0.7, sum variables were created from the factor items (Nunnally 1978, 245). The means, standard deviations, and alpha values of the sum variables are presented in Table 22. The belief-based perceived behavioral control was low (M=14.62).



Table 22 Descriptive statistics and Cronbach's alpha for perceived behavioral control factors

Sum variable	Items	M	SD	$\alpha$
Knowledge (n=518)	4	16.13	7.53	0.86
Privacy (n=520)	5	18.65	9.05	0.85
Location (n=518)	2	10.72	7.57	0.80
Embarrassment (n=515)	5	14.70	7.00	0.83
Ethics (n=507)	2	12.90	7.54	0.94
PBC total	18	14.62		

A CFA was performed through SPSS AMOS on 18 items to examine the predictors for perceived behavioral control. A five factor model of knowledge, privacy, location, embarrassment, and ethics was hypothesized on the basis of the EFA. Variables 11, 12, 13, and 15 served as indicators of the knowledge factor. Variables 2, 5, 6, 10, and 18 served as indicators of the privacy factor. Variables 8 and 9 served as indicators of the location factor. Variables 16, 17, 20, 21, and 22 served as indicators of the embarrassment factor. Variables 14 and 24 served as indicators of the ethics factors. The five factors were hypothesized to covary with one another.

Assumptions for CFA were examined before performing the analysis. Normality was examined and outliers removed during the EFA. Sample size was adequate (>200) for a CFA (Metsämuuronen 2006, 576, 618). An analysis of missing value patterns was performed in SPSS due to the sensitive of CFA as a method for missing value. Missing values were between 0.2 to 1.8 percent in a single variable. As the quantity of missing values was low and the values were missing at random, the missing values were replaced with mean values (Hertel 1976, 463).

The analysis was performed in SPSS AMOS and the fitness indexes and residuals were examined. According to the modification indexes (MI), a poor model fit was caused by several redundant items. Several error terms in factor 1, factor 2, and factor 4 were set to correlate with each other to improve model fit (Metsämuuronen 2003 565–566). After making corrections according to modification indices, the model was run again.

The model fit was evaluated with the  $\chi^2$  - test. The null hypothesis regarding  $\chi^2$ - test was rejected. NFI was examined to estimate if the null hypothesis was rejected because of the large sample size. The NFI was 0.95, thus the null hypothesis was likely rejected because of the sample size. The relative  $\chi^2$  was acceptable at 3.67. Other fit indexes calculated were: GFI, CFI, and RMSEA, which were all above the recommended values. All the fit indices are presented in Table 23.

Table 23 Model fit indices of confirmatory factor analysis for perceived behavioral control

Name of Index	Value	Reference value	Reference
GFI	0.93	>0.90 Good fit	Metsämuuronen (2006, 626)
RMSEA	0.07	<0.08 Good fit	MacCallum et al. (1996, 134)
CFI	0.95	>0.95 Good fit	Metsämuuronen (2006, 626)
NFI	0.95	>0.90 Good fit	Metsämuuronen (2006, 626)
Chi-square/df	3.5	<5	Schumacker & Lomax (2004)

After the model fit was determined adequate, the t-test or Critical ratio (C.R) was examined for all the parameters. C.R values were all >1.96. All factor loadings were high (>0.5) and significant for all constructs. The results of the CFA is in Table 24.

The factors extorted in the EFA were supported by the CFA. The five factors were knowledge, privacy, location, embarrassment, and ethics. Knowledge included items: better selection of sex toys, better product descriptions in online stores, greater acceptance of sex toys in society, and more knowledge about sex toys. The factor loadings were high ranging from .74 to .80 and the R<sup>2</sup> values were all above .50.

The second factor Privacy included items: discreet delivery, privacy and information security, online shopping, anonymous buying, and home delivery. All the items loaded high and had R<sup>2</sup> values ranging from .39 to .77. The third factor location included items: sex shop close to other stores and buying sex toys elsewhere than sex shops. Both the factor loadings and R<sup>2</sup> values were high. The fourth factor embarrassment included items: other shoppers in the store, acquaintances would see me, I would not feel embarrassed, customer service, and relaxed and open atmosphere in a sex shop. The fifth factor ethics included items: environmentally friendly sex toys and ethically produced sex toys.

Table 24 Confirmatory factor analysis for perceived behavioral control

Factors, items	factor loading	S.E	C.R	R <sup>2</sup>
<b>F1 Knowledge</b>				
11. better selection of sex toys	.74			.55
15. better product descriptions in online stores	.80	.049	17.33	.64
12. greater acceptance of sex toys in society	.75	.052	16.79	.57
13. more knowledge about sex toys	.74	.054	15.76	.55
<b>F2 Privacy</b>				
5. discreet delivery	.80	.058	16.85	.64
18. privacy and information security	.89	.063	15.46	.77
10. online shopping	.74	.066	14.94	.55
2. anonymous buying	.63	.045	12.94	.39
6. home delivery	.82			.67
<b>F3 Location</b>				
8. sex shop close to other stores	.81	.069	14.43	.66
9. buying sex toys elsewhere than sex shops	.79			.63
<b>F4 Embarrassment</b>				
21. other shoppers in the store	.69	.048	12.79	.48
16. acquaintances would see me	.61	.049	10.54	.37
17. I would not feel embarrassed	.72	.054	13.13	.52
20. customer service	.80	.050	17.65	.65
22. relaxed and open atmosphere in a sex shop	.84			.70
<b>F5 Ethics</b>				
14. environmentally friendly sex toys	.92			.85
24. ethically produced sex toys	.91	.037	25.04	.83

Note: Factor loadings were all significant at  $p < 0.001$ . Model Fit: CMin/Df 3.5, GFI 0.93, NFI 0.94, CFI 0.95, RMSEA 0.07

Table 25 shows the composite reliability (CR), average variance extracted (AVE), and correlations among factors. All of the factors had an acceptable CR value over the required 0.7 (Hair et al. 2010, 126).

Table 25 Correlations, average variance extracted, and composite reliability for perceived behavioral control factors

	AVE	CR	F1	F2	F3	F4	F5
F1	<b>0.58</b>	0.76	<b>0.76</b>	0.59	0.41	0.54	0.45
F2	<b>0.60</b>	0.82	0.77	<b>0.77</b>	0.15	0.40	0.20
F3	<b>0.64</b>	0.70	0.64	0.39	<b>0.80</b>	0.37	0.26
F4	<b>0.54</b>	0.76	0.74	0.63	0.61	<b>0.73</b>	0.38
F5	<b>0.84</b>	0.90	0.67	0.45	0.51	0.62	<b>0.95</b>

All AVE values were 0.5 or higher so convergent validity was achieved (Hair et al. 2010, 126). The bolded diagonal values in Table 25 are the squared AVE values, underneath the diagonal are the correlations between factors and above the diagonal the

squared correlations. The AVE values for the factors were all higher than the squared factor correlations with the exception of F1 and F2 correlation was 0.58 and 0.59. The squared factor AVE values were higher than correlations with other factors with the exception F1 F2 0.76 and 0.77 (Farrell 2010; Hair et al. 2010.)

## 5.5 Purchase intentions for sex toys

Three items assessed purchase intentions towards sex toys. Items ranged from 1 to 7. A higher score represented a stronger agreement. A lower score represented a stronger disagreement. (Ajzen 2013, 4; Francis et al. 2004, 11.) The descriptive statistics for purchase intentions are shown in Table 26. The mean total for purchase intention toward sex toys was 3.1 indicating slightly negative intentions. The Cronbach's alpha was acceptable at 0.94.

Table 26 Purchase intentions for sex toys (n=519)

Item	n	M	SD	$\alpha$
I intend to buy sex toys within the next six months.	519	2.92	1.85	
I would want to buy sex toys within the next six months.	518	3.48	2.04	
I plan to buy sex toys within the next six months.	518	2.97	1.95	
Mean total purchase intention		3.1	1.85	0.94

Purchase intentions can be predicted with the determinants: attitude, subjective norm, perceived behavioral control, and past purchase behavior. Table 27 displays descriptive statistics for purchase intentions and its determinants and correlations between the variables. Variables are displayed with abbreviations INT (intention), AT (attitude), SN (subjective norm), PBC (perceived behavioral control), and PAST (past purchase behavior).

Table 27 Correlations among model variables

	INT	AT	SN	PBC
INT				
AT	<b>.641</b> /.610**			
SN	<b>.415</b> /.219**	<b>.394</b> /467**		
PBC	<b>.142</b> /.511**	<b>.216</b> /610**	<b>.167</b> /.427**	
PAST	<b>.610</b> /610**	<b>.444</b> /.420**	<b>.415</b> /.181**	<b>.127</b> **

\*\*Correlation is significant at the 0.01 level

Purchase intentions were positively correlated with attitude ( $r=.641/.610$ ), subjective norm ( $r=.415/.219$ ), perceived behavior control ( $r=.142/.511$ ), and past purchase behavior

( $r=.610/610$ ). The bolded values represent the overall measurement scores and non-bolded the belief-based measurements.

### 5.5.1 Factors affecting purchase intentions for sex toys: Model 1

In the first model, the sequential regression was employed to determine if addition of subjective norm, perceived behavioral control, and past purchase behavior improved prediction of purchase intention beyond that afforded by differences in attitude. Regression and the evaluation of assumptions were performed using SPSS. Assumptions about normality, linearity, absence of multicollinearity, homoscedasticity of residuals, and sample size were examined. To meet these assumptions cases with missing values and with extreme outliers were excluded from the analysis. (Tabachnick & Fidell 2013, 159). With 434 respondents, the number of cases was above the minimum requirement of ( $>104 +$  the number of IV's). Collinearity statistic VIF and condition index were both below the recommended values of 10 and 15. Tolerance values were above the recommended value of 0.10 (Hair et al. 2010, 204).

Table 28 displays the unstandardized regression coefficients (B), standardized regression coefficients ( $\beta$ ),  $R^2$ , and adjusted  $R^2$  after the entry of all four IV's. R for regression was significantly different from zero at the end of each step. After step four, with all the IV's in the equation,  $R^2=.55$  with 95% confidence limits varied from -2.98 to -1.73,  $F(4, 434) = 131.83$ ,  $p<.001$ . The adjusted  $R^2$  value of .55 indicated that over half of the variability in purchase intentions was predicted by attitude, subjective norm, perceived behavioral control, and past purchase behavior.

Table 28 Model 1: Sequential Regression of attitude, subjective norm, perceived behavioral control, and past purchase behavior on purchase intention (n=434)

Variables	B	$\beta$	R	$R^2$	$R^2$ change	Adjusted $R^2$
INT						
AT	0.90**	0.44	.641	.411	.411	.409
SN	0.13**	0.07	.665	.442	.031	.440
PBC	-0.02	-0.02	.667	.442	.000	.438
PAST	0.74**	0.38	.741	.549	.106	.544

\*\* $p<.01$ .

After step 1, with attitude in the equation,  $R^2= .41$ ,  $F(1, 434) = 304.50$ ,  $p<.001$ . After step 2, with subjective norm added to the equation,  $R^2=.44$ ,  $F(1, 434) = 24.58$ ,  $p<.001$ . Addition of subjective norm resulted in a slight increment in  $R^2$ . After step 3, with perceived behavioral control added to the equation,  $R^2=.44$ ,  $F(1, 434) = 0.125$ . After step

4, with the addition of past purchase behavior in to the equation  $R^2=.55$ ,  $F(1, 434) = 102.17$ ,  $p < .001$ . Addition of perceived behavioral control did not improve  $R^2$  and was not significant. Based on the results, the variability in purchase intentions was predicted mostly by attitude, subjective norm contributes modestly to prediction, perceived behavioral control added no further prediction, and past purchase behavior contributed significantly to the model.

**H1a. Attitude will have positive and significant effect on purchase intention towards sex toys. à Supported.**

**H2a. Subjective norm will have a positive and significant effect on purchase intention towards sex toys. à Supported.**

**H3a. Perceived behavioral control will have a positive and significant effect on purchase intention towards sex toys. à Not supported.**

**H4. Purchasing in the past will have a positive and significant effect on purchase intention towards sex toys. à Supported.**

### **5.5.2 Factors affecting purchase intentions for sex toys: Model 2**

In Model 2, the sequential regression was employed to determine if addition of belief-based measurement of subjective norm, and perceived behavioral control, and past purchase behavior improved prediction of purchase intention beyond that afforded by differences in belief-based measurement of attitude. Regression and the evaluation of assumptions were performed using SPSS. Assumptions about normality, linearity, absence of multicollinearity, homoscedasticity of residuals, and sample size were examined in SPSS. To meet the assumptions cases with missing values and cases with extreme outliers were excluded from the analysis. (Tabachnick & Fidell 2013, 159). With 499 respondents the number of cases was above the minimum requirement of ( $>104 +$  the number of IV's). Collinearity statistic VIF and condition index were both below the recommended values of 10 and 15. Tolerance values were above the recommended value of 0.10 (Hair et al. 2010, 204).

Table 29 displays the unstandardized regression coefficients (B), standardized regression coefficients ( $\beta$ ),  $R^2$ , and adjusted  $R^2$  after the entry of all four IV's. R for regression was significantly different from zero at the end of each step. After step four, with all the IV's in the equation,  $R^2=.55$  with 95% confidence limits from 0.12 to 0.79,  $F(4, 489) = 151.37$ ,  $p < .001$ . The adjusted  $R^2$  value of .55 indicated that over half of the

variability in purchase intentions is predicted by attitude, subjective norm, perceived behavior control, and past purchase behavior.

Table 29 Model 2: Sequential Regression of attitude, subjective norm, perceived behavioral control, and past purchase behavior on purchase intention (n=489)

Variables	B	$\beta$	R	R <sup>2</sup>	R <sup>2</sup> change	Adjusted R <sup>2</sup>
INT						
AT	0.078**	0.368	.610	.372	.372	.371
SN	-0.026**	-0.113	.615	.378	.006	.375
PBC	0.059**	0.201	.645	.416	.038	.412
PAST	0.794**	0.411	.744	.553	.138	.550

\*\*p<.01.

After step 1, with attitude in the equation,  $R^2 = .37$ ,  $F(1, 489) = 291.77$ ,  $p < .001$ . After step 2, with subjective norm added to the equation,  $R^2 = .38$ ,  $F(1, 489) = 4.38$ ,  $p < .05$ . Addition of subjective norm resulted in a slight increment in  $R^2$ . After step 3, with perceived behavioral control added to the equation,  $R^2 = .42$ ,  $F(1, 489) = 31.71$ ,  $p < .001$ . After step four, with the addition of past purchase behavior in to the equation,  $R^2 = .55$ ,  $F(1, 489) = 150.56$ ,  $p < .001$ . According the results, the variability in purchase intentions was predicted mostly by attitude, perceived behavioral control contributed modestly to prediction, subjective norm very little, and past purchase behavior contributed significantly to the model.

**H1b. The belief-based measure of attitude will have a positive and significant effect on purchase intention towards sex toys. à Supported.**

**H2b. The belief-based measurement of subjective norm will have a positive and significant effect on purchase intention towards sex toys. à Supported.**

**H3b. The belief-based measurement of perceived behavioral control will have a positive and significant effect on purchase intention towards sex toys. à Supported.**

## 5.6 Differences between high and low purchase intention groups

The purchase intention variable was applied to form high, moderate, and low purchase intention groups to compare the groups to test the research hypothesis H5. Purchase intention was measured with a semantic differential from 1 to 7. Low purchase intention

group included values from 1 to 3.99, moderate purchase intention group values from 4 to 4.99, and high purchase intention group variables from 5 to 7. The low intention group comprised 58% (n=303) of the respondents, the moderate group included 21% (n=110) of the respondents, and the high intention group concluded 21% (n=108) of the respondents. Purchase intention groups are shown in Figure 10.

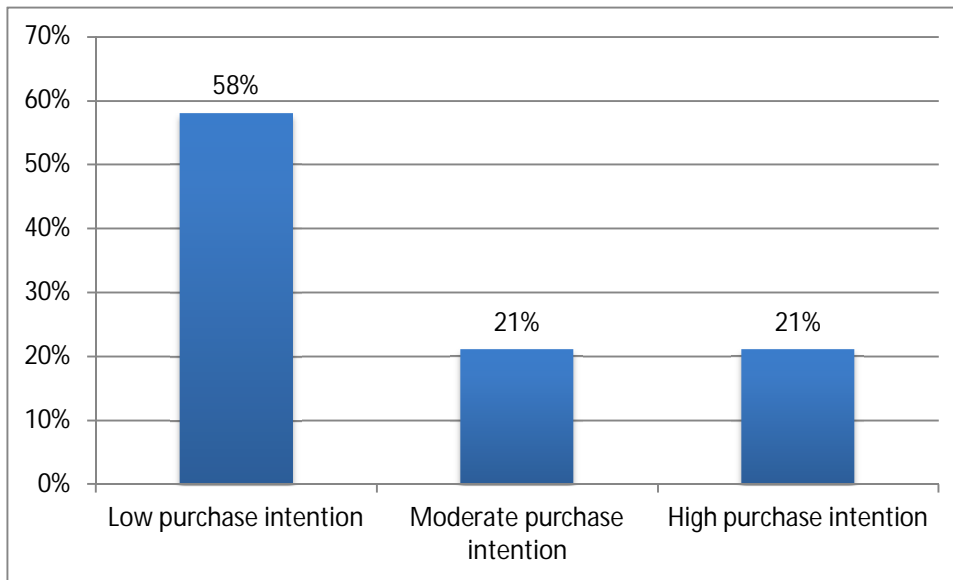


Figure 10 Purchase intention groups for sex toys (N=521)

As the moderate group is composed of the neutral answer (value 4), it was not included in the comparisons. A Chi-square test of independence or the Pearson Chi-square test was used to examine the relation between different demographic background variables and purchase intentions. The background variables tested were gender, age group, relationship status, region of residence, area of residence, relationship duration, if there are children living at home or not, education, income, and current status. The results of the test are reported in Table 30.



Table 30 Chi-square test for purchase intentions against demographic variables

Variable	$\chi^2$	df	p	Difference
Gender	0.260	1	0.61	No difference
Age	2.559	2	0.28	No difference
Relationship status	2.208	2	0.33	No difference
Region of residence	0.386	3	0.94	No difference
Area of residence	0.045	2	0.98	No difference
Relationship duration	6.108	4	0.19	No difference
Children living at home	2.057	1	0.15	No difference
Education	1.890	4	0.76	No difference
Income	3.276	5	0.66	No difference
Current status	2.049	5	0.84	No difference

The results revealed no difference between high and low purchase intention groups with respect to the tested demographic variables. The respondents purchase intentions did not differ by gender  $\chi^2$  (1, n=408)=0.260, p=0.61, age group  $\chi^2$  (2, n=406)=2.559, p=0.28, relationship status  $\chi^2$  (2, n=410)=2.208, p=0.33, region of residence  $\chi^2$  (3, n=410)=0.386, p=0.94, area of residence  $\chi^2$  (2, n=408)=0.045, p=0.98, relationship duration  $\chi^2$  (4, n=336)=6.108, p=0.19, children living at home  $\chi^2$  (1, n=408)=2.057, p=0.15, education  $\chi^2$  (4, n=406)=1.890, p=0.76, income  $\chi^2$  (5, n=392)=3.276, p=0.76, and current status  $\chi^2$  (5, n=410)=2.049, p=0.84.

**H5. There will be significant differences between high and low purchase intention towards sex toys groups regarding demographic variables. à Not supported.**

## 5.7 Discussion on the findings

In this section the results of the study are discussed. Consumer behavior towards sex toys is explored. The taboo nature of sex toys is reflected against the study results.

### 5.7.1 Consumer behavior towards sex toys

According to Herbenick et al. (2009, 1857), 53% of American women aged 18–60 years have used a vibrator in their sexual activities. According to Reece et al. (2009, 1867) 45% of American men aged 18–60 years have used a vibrator. The findings from this study were similar. According to the results of this study 53% of 18–65-year olds Finns have used sex toys. From this number, 26% were men and 26% women. There has been eight

years between this study and the studies by Herbenick et al. (2009) and Reece et al. (2009). It seems that the use of sex toys has not increased during the past eight years.

People use sex toys more often than before, 25% of the respondents in this study reported using sex toys monthly. According to Herbenick et al. (2016, 1867) 20% of women who reported vibrator use, did so monthly. The number was lower for men, 14% of men who reported vibrator use, did so monthly (Reece et al. 2009, 1867). The increase in the usage frequency between earlier research and this study can be explained with the growing popularity of other sex toys than vibrator. This study included different types of sex toys as the research by Herbenick et al. (2009) and Reece et al. (2009) was concentrated on vibrator use. The inclusion of other sex toys did not increase the percentage of people who use sex toys. This indicates that people who use vibrators, are likely to also use other sex toys.

According to this study, 58% of 18–65–year olds Finns, do not intend to purchase sex toys within the next 6 months. Positive purchase intentions within 6 months were reported by 21% of the respondents. Over half of the respondents, reported that they have not purchased sex toys at all. Respondents who reported purchasing sex toys did so only a few times per year or less. The most frequent buyers and users of sex toys were young adults, especially young adult women. Literature review on this area showed that the marketing of sex toy emphasis heavily young female consumers. Marketing and branding of sex toys based on lifestyle and fashion is especially appealing to this group.

Majority of the respondents (42%) reported buying sex toys from an online sex shop. According to the findings from the expert interviews most people purchase their sex toys online. It is quite surprising that 32% of respondents reported purchasing sex toys from a physical sex shop. Based on the study results, Finnish consumers prefer specialized sex shops, both online and offline, for buying sex toys. Findings from the expert interviews indicate that the fears and doubts that people have about online sex shops was one reason why people still shop at a brick and mortar shops. This conclusion was confirmed by the study results, which showed that privacy and anonymity were important facilitating factors for purchasing sex toys.

Previous research indicates that people use online sex shops because of the large selection of products (Daneback et al. 2011, 106). The results of this study showed that online stores are perceived as having bad or inadequate product descriptions that make purchasing difficult. According to the findings from the expert interviews, the popularity of physical sex shops can be explained with the consumers' need to see the product in advance. Assistance from a customer servant was one reason for visiting a physical sex shop. A large selection of sex toys has no real value to a person who does not know which product to buy. Amazon has a large selection of sex toys. In 2017 there were over 17 000 items under the search term vibrator in Amazon. Still only 5% of respondents, in this study, reported purchasing sex toys from unspecialized online stores such as Amazon.

The selection of sex toys in pharmacies and grocery stores consists mostly of lubrication products and vibrators. In this study, 9% of respondents reported purchasing sex toys from a pharmacy, and another 9% reported purchasing sex toys from a grocery store. The combined percentage of respondents who have bought sex toys in an everyday context was 18%. In previous research, convenience was reported as a reason for making sex toy purchases online (Daneback 2016, 106). If convenience alone affected the purchasing of sex toys, everyday context such as pharmacies and grocery stores, should be more popular places for purchasing sex toys. According to this study poor selection, lack of customer service, and the visibility of an everyday context could explain why pharmacies or grocery stores are not more popular places for purchasing sex toys. According to the study 20% of the respondents had received a sex toy as a gift. Reece (2010, 402) found that heterosexual men buy vibrators for their partner rather than for themselves. Consistent with these findings, the results from this study showed that women receive sex toys as a gift from their partners.

### ***5.7.2 Changing boundaries for sex toy acceptability***

According to the results of this study results, purchasing sex toys in Finland is possible to individuals who wish to do so. Purchasing sex toys is considered normal and the members of the society approve it. According to the study results the respondents assumed that most people have purchased sex toys but at the same time believed that their friends do not consider that the respondent might purchase sex toys. According to this study, the attitude towards purchasing sex toys were neutral. According to the findings from the expert interviews, the widespread use, mainstream availability, social acceptance, and media coverage of sex toys indicate that sex toys have crossed into mainstream. The findings described above indicate that sex toys are no longer perceived as a taboo.

Taboo products cause stigma, which can be defined as the fear of being associated with the negative beliefs about taboo products (Helweg-Larsen & Collins, 1994, 227). In this study, the behavioral beliefs associated with the purchasing of sex toys were mostly positive ones. This indicates that sex toys are not a taboo anymore or at least they are not strongly associated with negative beliefs. Many respondents felt uncomfortable talking about sex toys in public, indicating some conversational taboo around sex toys. This indicates that sex toys fit the controversial product category described by Katkanis (1994, 11) as beneficial but private.

Some sex toys, such as male masturbation toys, can still be considered a taboo. This was evident in the elicitation study response by a male respondent: “*Friends* (would not

accept) *if I used for masturbation but if I used with a partner, it would be acceptable*". According to the study elderly people were seen as disapproving the purchasing of sex toys. The mature group was the largest non-user group of sex toys. These findings would indicate that sex toys might be a taboo among elderly individuals. This is unfortunate as elderly individuals could benefit from sex toy usage, maybe even more than the other groups.

In this study, partner, healthcare professionals, and friends were found to influence the purchase intentions for sex toys. The role of healthcare professionals over the influence of friends is quite surprising. The strong influence of healthcare professionals indicates that sex toys have transitioned from a product category associated with porn to a consumer good or even a product in the healthcare sector. The respondents of this study saw motives for purchasing sex toys play related. The purchasing of sex toys for sexual problems was rare. Sexual problems might be a subject for social desirability bias. Sexual dysfunctions such as erectile problems could be a taboo subject. It seems that when associating sex toys with play, there is no taboo around the subject. When talking about sex toys in the context of sexual dysfunctions, sex among elderly individuals, and lonely men, there is some taboo left to the subject.

## 6 CONCLUSIONS

### 6.1 Theoretical implications

In the section, the study results are reflected against findings from previous research. The purpose of this thesis was to investigate factors that predict consumer purchase intentions for sex toys.

#### 6.1.1 *Beliefs about purchasing sex toys*

The first research question of the thesis was: What are the behavioral, normative, and control beliefs that consumers have about purchasing sex toys? Behavioral beliefs constitute the latent attitude construct, thus measure attitude indirectly. Most of the behavioral beliefs held important by the respondents were positive ones. This is consistent with the previous research where respondents held high positive and low negative beliefs about women's vibrator use (Herbenick et al. 2011, 329). Behavioral beliefs formed three factors: playfulness, sexual wellness, and relationship maintenance.

According to Attwood (2009, xv) “...in contemporary society prevalent is a view of sexual practice as play and pleasure”. Play activities are done for fun, enjoyment, and curiosity (Alderman 1974; Deci & Ryan, 1985, 122). Curiosity is: “A strong desire to know or learn something” (Oxford English dictionary). Playfulness factor included 8 items: spice up sex life, make sex versatile, bring new experiences, make sex exciting, bring variation, be fun, make sex better, and increase partner's pleasure. In previous research fun, curiosity, and spicing up sex life have been the main reasons for vibrator use for both males and females (Reece et al 2010, 399; Herbenick et al. 2010, 56). Previous research shows that heterosexual men use vibrator mostly to enhance their female partners' pleasure (Reece et al 2010, 389, 399).

An active sex life has proven to have an array of physical and mental health benefits (Blanchflower & Oswald 2004; Galinsky & Waite 2013; Christopher & Sprecher 2009; Holmberg et al. 2010; Kontula 2016, 99; Kontula 2009, 14). Sexual health has been used to promote sex toys since the first vibrators hit the market in the turn of the 20th century. The sexual wellness factor included 4 items: help me to get an orgasm, increase my pleasure, help with sexual arousal problems, exercise pelvic muscles, and help with sexual dysfunctions. Sexual wellness factor was mainly explained by: help me to get an orgasm and increase my pleasure. Many women have problems in achieving an orgasm (Kontula 2016, 94, 86), sex toys can help with this. The use of vibrator for achieving an orgasm has been one of the main reasons for vibrator use in previous studies (Herbenick

et al. 2010, 56; Herbanick et al. 2011, 340). In previous research the sexual function scores (erectile function, intercourse satisfaction, and orgasmic function) were better with men and women who use vibrators (Reece et al. 2010, 400; Herbenick et al. 2010, 49).

In this study the third factor influencing the latent attitude construct was relationship maintenance. The importance of relationship maintenance in the context of sex toys is based on research findings that show that a happy relationship with satisfying sex life leads to a higher quality of life (Kamp Dush & Amato 2005; Kontula 2016, 15, 51, 53). Relationship maintenance factor included 3 items: deepen relationship, enhance my relationship, and getting to know partner. These findings are supported by previous research, where sex toys have been reported as a way to maintain or enhance passion in a long relationship (Kontula 2016, 15, 104; Herbenick 2011, 340).

Normative beliefs constitute the latent subjective norm construct, thus measure subjective norm indirectly. According to this study, partner, healthcare professionals, and friends were perceived as having the biggest normative influence over the decision to purchase sex toys. In previous research, the influence of sexual partner on condom use has been shown to be strong and the influence of peers medium to strong (Sheeran & Taylor 1999, 1659).

Control beliefs constitute the latent perceived behavioral control construct, thus measure perceived behavioral control indirectly. Control beliefs formed five factors: knowledge, privacy, location, embarrassment, and ethics. Knowledge factor included 4 items: better selection, better product descriptions in online stores, greater acceptance of sex toys in society, and more knowledge about sex toys. In previous research knowledge has been an important factor when studying sexual behaviors. According to Sheeran and Taylor (1999, 1658) knowledge about safe sex practices was related to intention to use condoms. Herbenick (2015, 641) found that clinicians' should offer additional information about the sizes and retailers of sex toys.

Privacy factor included 5 items: discreet delivery, privacy and information security, online shopping, anonymous buying, and home delivery. In previous research, ability to shop sex toys anonymously was found as one reason to purchase sex toys from online stores (Daneback et al. 2011, 107). Embarrassment factor included 5 items: other shoppers in the store, acquaintances would see me, purchase embarrassment, customer service, and relaxed and open atmosphere in a sex shop. Embarrassment has been reported to affect the purchase intentions of sex-related products (Sheeran & Taylor 1999, 1658; Helweg-Larsen & Collins 1994, 224). Results from previous research confirm that consumers want to avoid physical sex shops in the fear of being seen (Daneback et al. 2001, 107; Talvio 2011, 123, 140).

### 6.1.2 *Results for the conceptual framework*

The second research question of the thesis was: To what extent attitude, subjective norm, perceived behavior control, and past purchase behavior predict purchase intentions for sex toys? The TPB constructs and past purchase behavior predicted purchase intentions towards sex toys with a moderate to strong effect. The TPB has previously successfully predicted condom use and condom purchase intentions (Sheeran & Taylor 1999, 1662). Attitude, subjective norm, perceived behavioral control, and past purchase behavior explained 55% of the variation in the purchase intentions towards sex toys when measured directly. The same 55% was achieved when measured indirectly through behavioral, normative, control beliefs, and past purchase behavior. The results of this study were slightly better than in a review of 18 studies about condom use, where TRA explained 37% (sample weighted mean) and TPB 42% of variance in the intentions to use condoms (Sheeran & Taylor 1999, 1662). Figure 11 shows the results for the conceptual framework, the standardized coefficients ( $\beta$ ), and the  $R^2$  values.

Consistent with previous research, the attitude was the best predictor for purchase intentions (Albarracín et al. 2001, 142). Thus, hypothesis H1a and H1b were confirmed (Table 31) as both the direct measurement for attitude and the indirect measurement with weighted behavioral beliefs had a positive and significant effect on purchase intention. Intentions correlated strongly with attitude ( $r=.64$ ) and with weighted behavioral beliefs ( $r=.61$ ). The threshold values for the used effect size were those presented by Cohen (1992, 5): .10 was a small, .30 medium and .50 large effect size. Similar correlations were reported on a meta-analysis of 96 data sets about how well the TRA and TPB predicted condom use. According to the meta-analysis, condom use intentions were based on attitude ( $r= .58$ ). (Albarracín et al. 2001, 142.) Regression using attitude ( $\beta=.44$ ) and behavioral beliefs ( $\beta=.37$ ) were the best predictors of the purchase intentions. With large effect size, attitude explained 41% of variance. When indirectly measured with behavioral beliefs, it explained 37% of the total variance in purchase intentions. The threshold values for  $R^2$  effect size are those presented by Cohen (1992, 7): .0196 for small effect, .1304 for a medium effect, and .2592 for large effect. The research hypotheses and results are shown in Table 31.

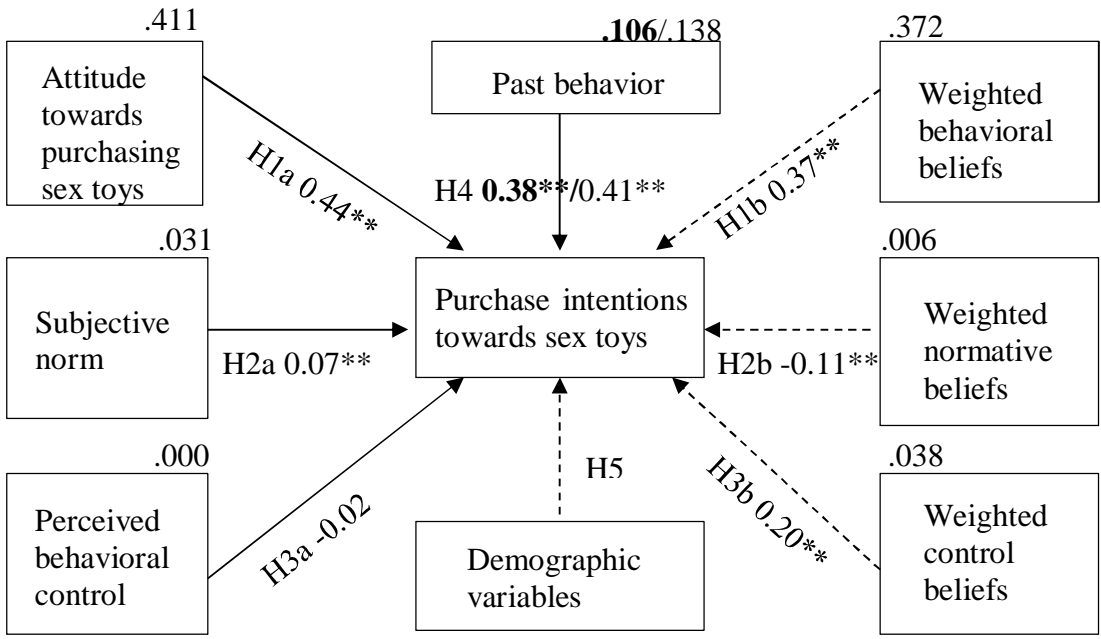


Figure 11 Results for the conceptual framework

Hypothesis H2a and H2b were confirmed (Table 31) as the direct measurement for subjective norm and the indirect measurement with weighted normative beliefs had a positive and significant effect on purchase intention. Intention had a medium-sized correlation ( $>.30>.50$ ) with subjective norm ( $r=.42$ ), and small-sized correlation ( $>.10>.30$ ) with weighted normative beliefs ( $r=.22$ ). This is consistent with the results from a meta-analysis about how well TRA and TRB predict condom use. In the meta-analysis, the intentions to use condom were based on subjective norms ( $r= .39$ ) (Albarracín et al. 2001, 142.). Using regression subjective norm ( $\beta=.07$ ) and weighted behavioral beliefs ( $\beta=-.11$ ) were not good predictors for purchase intention. The subjective norm had a small effect explaining only 3% of variance. When indirectly measured with normative beliefs, it explained less than 1% of the total variance in purchase intentions. The small effect of subjective norm over intentions is consistent with previous research (Godin & Kok 1996, 87; Armitage & Conner 2001, 471). The poor prediction power of the subjective norm has been argued to result from the way it is conceptualized. (Armitage & Conner 2001, 471.)



Table 31 Results and research hypothesis

Hypothesis	Result
H1a: A positive attitude will have positive and significant effect on purchase intention towards sex toys	<b>Confirmed</b>
H1b: The belief-based measure of attitude will have a positive and significant effect on purchase intention towards sex toys	<b>Confirmed</b>
H2a: a positive subjective norm will have a positive and significant effect on purchase intention towards sex toys	<b>Confirmed</b>
H2b: The belief-based measurement of subjective norm will have a positive and significant effect on purchase intention towards sex toys	<b>Confirmed</b>
H3a: A positive perceived behavioral control will have a positive and significant effect on purchase intention towards sex toys	<b>Rejected</b>
H3b: The belief-based measurement of perceived behavioral control will have a positive and significant effect on purchase intention towards sex toys	<b>Confirmed</b>
H4: Purchasing in the past will have a positive and significant effect on purchase intention towards sex toys	<b>Confirmed</b>
H5: There will be significant differences between high and low purchase intention towards sex toys groups regarding demographic variables	<b>Rejected</b>

Perceived behavioral control had no significant effect on purchase intentions and only small effect when using the indirect measurement with weighted control beliefs. The hypothesis H3a was rejected (Table 31) as the overall measurement of perceived behavioral control did not have a significant effect on purchase intention. The hypothesis H3b was confirmed (Table 31) as the belief-based measurement of perceived behavioral control had a positive and significant effect on purchase intention. Indirect measurement of perceived behavioral control with weighted control beliefs had a small effect on purchase intentions explaining 4% of the total variance. Intentions correlated with perceived behavioral control with a small sized effect ( $r=.14$ ) and with weighted control beliefs with a strong sized effect ( $r=.51$ ). This is consistent with a meta-analysis about how well TRA and TPB predict condom use. In the meta-analysis, intentions towards condom use were based on perceived behavioral control ( $r= .45$ ) (Albarracín et al. 2001, 142.). Using regression ( $\beta=-.02$ ) perceived behavioral control was a poor predictor of purchase intention and weighted control beliefs ( $\beta=.20$ ) had only a small effect on intentions. The effect of perceived behavioral control has varied for weak (Albarracin et al. 2001, 156) to strong (Notani 1998, 247) in the previous research.

Past purchase behavior was the strongest predictor of purchase intentions for sex toys along with attitude. Hypothesis 4 was confirmed (Table 31) as past purchase behavior had a positive and significant effect on purchase intention in both models. The high predictive power of past purchase behavior is not surprising as previous research has found past behavior to be the strongest predictor for condom use. According to Rise (1992, 193) It exceeded the effect of attitude and subjective norms, and considerably reduced their effect. The results from this study showed that intentions correlated strongly with past purchase behavior ( $r=.61$ ). Using regression past purchase behavior ( $\beta=.38$  and  $\beta=.41$ ) was the best predictor of purchase intentions after attitude. Past behavior has been suggested to be added to the TPB framework (Conner & Armitage 1998, 1437; Sheeran & Taylor 1999, 1662). The results from the thesis supported this view as past behavior added the variance explained significantly explaining 11% and 14% of total variance.

The third research question of the study was: How do high purchase intention and low purchase intention groups vary according to demographic characteristics? Hypothesis 5 was rejected (Table 31), as no significant differences in high and low purchase intentions groups against demographic variables were observed. In a meta-analysis, the background variables had only a small correlation to condom use intentions (Sheeran & Taylor 1999, 1657).

## **6.2 Managerial implications**

Several managerial implications could be based on the findings of the thesis. The findings of this study have implications for retailers and manufacturers of sex toys. The TPB can be used as basis for planning marketing strategy and actions. Consumer's behavior can be hard to influence, thus affecting the components of the TPB through persuasive marketing communications can be influential (Fishbein & Ajzen 1975, 451). Sex toys are a subject to ambivalent attitudes as they may cause embarrassment but also pleasure and joy. Marketing actions involving sex toys can be especially effective as ambivalent attitudes can be easily influenced through persuasive communication (Connor & Sparks 2002, 59).

Sex toys could be linked with the key goals that consumers have. The most important behavioral beliefs of the respondents were in the playfulness factor. However, sex toys are already strongly associated with outcomes related to fun and spicing up one's sex life. Therefore associating sex toys more strongly with other factors, such as sexual wellness, could help to reach new consumers. According to the findings from the expert interviews, there is a need for sex aid thinking in the sex toy industry. There might be some taboo left to sex toys in relation to sexual dysfunctions and elderly consumers. Emphasizing the sex

aid perspective of sex toys could win over a large group of non-user from the mature age group.

As matters concerning sexual dysfunctions can be considered as a taboo, advertising about sexual problems must be targeted and kept non-controversial. Strategies that use testimonials from health experts or typical consumer have been successful when dealing with controversial products (see Katkanis 1994; Wilson & West, 1981). Using healthcare professionals in sex toy marketing is supported by the results of this study. Healthcare professionals had a major influence on purchase intentions for sex toys. For this reason manufacturers and retailers should keep good relations to healthcare professionals. The marketers of sex toys should adapt a model used in the marketing of pharmaceuticals, where marketing is targeted to professionals as well as consumers. Marketing should be targeted at professionals such as: doctors, therapist, and pharmacies. Otherwise, in the future sex toy retailers might lose some of their market share to pharmaceutical companies.

According to this study knowledge was important for consumers. Customers should be able to get information about sex-related issues as well as the products and their uses. Good descriptions about the products are crucial. Especially for first time buyers insufficient descriptions of the products make purchasing more difficult. The effort should be made to educate the consumers about the products outside the setting of the retailing environment. Consumers want product tips and recommendations, as they do not know which products are good. Here the key is to provide targeted marketing for customers and professionals about the products. Anonymity and privacy should not be forgotten as consumers still value discreet delivery and the anonymity of an online store.

Strategies that rely on changing the TPB components presume that consumers are involved or actively interested in sex toys. In a low involvement case, the consumer interest should be awakened first. How to create consumer awareness? Advertising is one way of creating awareness, especially marketing campaigns for social change. Using creative advertising and uncommon communication channels (see Wilson & West 1981) is effective when dealing with controversial products.

There is room for the sex toy market to grow in terms of new and old customers. Over half of the respondents showed low purchase intentions towards sex toys, and one fifth of the respondents showed moderate purchase intentions. Winning over the consumers that showed moderate purchase intentions is crucial. Past purchase behavior was an important predictor of future purchase intentions, but most respondents reported buying sex toys only once a year or less. A more proactive approach by the sellers should be adopted. Loyalty schemes should be provided for existing customers and active marketing for individuals to encourage repeated buying. Here, the key is not only to remind the customer about the existence of the retailer, but to encourage repeated buying by introducing new products and educating people about the existing products.

Marketers should seek ways to overcome the fact that people do not want to give information to sex toy retailers. According to the study results, consumers desired targeted marketing for their needs. Multichannel model might be functional for sex shops, especially a flagship store under which different functions could be placed. In this context customers could see the actual products and get help from a customer servant. Also establishing pop-up shops in relevant context such as sexual wellness might be beneficial.

### **6.3 Limitations of the study**

There were theoretical limitations that related to the TPB, and methodological limitations that concerned the research design and the research instruments used in the study. The TPB has been criticized for its information-processing approach to consumer behavior. Consumers are not always rational actors who carefully consider the consequences of their behavior before making a decision. (De Vries & Van der Pligt 1998, 289.) Sex toys might be subject of different emotions in consumers. Therefore results gained from a cognitive model of behavior should be considered with this limitation in mind. The TPB model assumes a high involvement situation. Not all the participants of the study consider purchasing sex toys as a high involvement situation.

The TPB is vulnerable in terms of belief salience. Only a limited number of salient beliefs affect the behavior of an individual at a time. The beliefs elicited in the study might not correspond with the salient beliefs of the consumers. Some important beliefs might have been left out from the study, and vice versa some unimportant beliefs included into the study. It has been suggested that only five to nine (Ajzen & Fishbein 1977) or even less three to five beliefs are important to a particular behavior (Van der Pligt et al. 1982, 229). In this perspective, the number of beliefs (N=29) included in the study was too high. The sample of the study (N=521) was individuals aged from 18 to 65 years old. Sex toys are individual products used for multiple purposes. The challenge with a large heterogeneous sample was the spectrum of different motives for purchasing sex toys. This led to a survey with a large number of belief statements. The length of the survey might have impacted the quality of the data.

The TPB assumes a specific action that is defined in terms of target, action, context, and time (Ajzen & Fishbein 1977, 913). The scope of the thesis was the purchasing of sex toys within the next six months. A more narrow definition might have resulted in more specific beliefs and a better measurement model. The wide definition of the behavior led to a high number of belief statements in the survey. The topic of the survey was stated in advance for the respondents on the cover letter. This might have affected

the selection of the respondents. Only individuals who felt comfortable answering question about sex toys were the ones who took part in the survey.

## **6.4 Suggestions for future research**

The development of a measurement instrument for consumer behavior related to sex toys should be further explored. The structural equation model of this study should be further developed. Regression analysis should be made to the factors that construct the TPB determinates. The TPB should be tested in a narrower context such as examining purchase intentions towards vibrators. Vibrator is the most purchased and studied sex toy. Using vibrators as a context for TPB instead of sex toys would make it possible to compare results across studies. According to the study, consumers use online stores for purchasing sex toys. The context of TPB could also be narrowed by exploring purchase intentions towards online stores.

Future research should include more detailed information about consumer beliefs. Beliefs could be further investigated with focus groups or interviews. The number of beliefs elicited in this study was high. Research with only five to nine salient beliefs should be conducted. No differences between high and low purchase intention groups in respect to demographic variables were observed in this study. The future research should focus on finding segments based on different basis, such as psychographics. Behavioral segmentation based on the benefits of the factors extracted in this study could be tried. The influence of sex toy product attributes such as quality, durability, and design to purchase intentions could be explored, as no current research about the purchase criteria in relation to the product itself could be pointed.

This study examined the purchasing of sex toys in Finland, where sex toys are not perceived as a taboo. However, taboos can vary according to time and place. Thus, this study should be repeated in another country. According to the findings of this study, there might be some taboo left to sex toys in relation to sexual problems, elderly individuals, and lonely men. Sex toys were also perceived as a conversational taboo in this study. The existence of taboo around the different uses of sex toys should be further studied.

## SUMMARY

The purpose of the thesis was to investigate factors that predict consumer purchase intentions for sex toys. First, the development of sex toy market was illustrated. The contemporary market for sex toys developed in the 1990s driven by the emphases on female pleasure and the arrival of ecommerce. As the consumption of porn moved to Internet, physical sex shop selling mainly pornography, found sex toys as a new way to generate revenue. At the same time, the sex toys improved and were increasingly branded and advertised through lifestyle and fashion.

Secondly, it was theorized that purchase intentions for sex toys could be predicted by attitude towards purchasing sex toys (i.e. how positively or negatively purchasing sex toys is values), subjective norm (i.e. the social acceptability for the purchasing of sex toys), perceived behavioral control (i.e. factors that facilitate or hinder the purchasing of sex toys), past purchase behavior, and demographic factors. Finally, a conceptual model and research hypothesis were developed on the basis of the TPB.

The empirical part of the thesis combined qualitative and quantitative methods. A sequential mixed methods research design was adopted. The qualitative part of the study included expert interviews (N=2) and a belief elicitation study (n=42). The interviews provided understanding about the phenomenon in the Finnish context. The purpose of the belief elicitation study was to identify salient beliefs. The quantitative part of the study included an online survey (N=521). The data gained from the survey was statistically analyzed using SPSS and SPSS AMOS programs.

EFA and CFA were conducted on the data. According to the study results attitude towards purchasing sex toys were composed of behavioral beliefs on playfulness, sexual wellness, and relationship maintenance. Perceived behavioral control was composed of control beliefs about knowledge, privacy, location, embarrassment, and ethics. Subjective norm was composed of normative beliefs about the influence of: partner, healthcare professional, and friends. To test the conceptual framework, multiple regression was performed on purchase intentions.

Two separate models were tested for purchase intentions. Both models explained 55% of purchase intentions. The findings of the study indicated that the conceptual framework for the study can predict sex toy purchase intentions with a medium-to large effect size. Attitude and past purchase behavior were the best predictors for purchase intentions towards sex toys. Chi-square test was used to find out if there were any demographic differences between high and low intention groups. There were none. The study has further strengthened the importance of attitude in predicting future behaviors. Past behavior proved to be a significant predictor of intentions, although not included in the original TPB. This study supports the inclusion of past behavior to the TPB.

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## APPENDICES

### Appendix 1 Belief elicitation study questionnaire

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- 1 Mitä hyötyä sinulle olisi siitä, että seuraavan kolmen kuukauden aikana
    - a.) ostaisit seksivälineitä joko verkkokaupasta tai myymälästä?
    - b.) käyttäisit seksivälineitä joko yksin tai kumppanin kanssa?
  - 2 Mitä haittaa sinulle olisi siitä, että seuraavan kolmen kuukauden aikana
    - a.) ostaisit seksivälineitä joko verkkokaupasta tai myymälästä?
    - b.) käyttäisit seksivälineitä joko yksin tai kumppanin kanssa?
  - 3 Ketkä henkilöt tai ryhmät eivät hyväksyisi jos
    - a.) ostaisit seksivälineitä joko verkkokaupasta tai myymälästä seuraavan kolmen kuukauden aikana?
    - b.) käyttäisit seksivälineitä joko yksin tai kumppanin kanssa seuraavan kolmen kuukauden aikana?
  - 4 Keiden henkilöiden tai ryhmien ajattelet hyväksyvän jos
    - a.) ostaisit seksivälineitä verkkokaupasta tai myymälästä seuraavan kolmen kuukauden aikana?
    - b.) käyttäisit seksivälineitä joko yksin tai kumppanin kanssa seuraavan kolmen kuukauden aikana?
  - 5 Tuleeko mieleesi muita henkilöitä tai ryhmiä, jotka vaikuttaisivat seuraavan kolmen kuukauden aikana tapahtuvaan
    - a.) seksivälineiden ostoon verkkokaupasta tai myymälästä?
    - b.) seksivälineiden käyttöön joko yksin tai kumppanin kanssa?
  - 6 Mitkä tekijät tai olosuhteet voisivat hankaloittaa seuraavan kolmen kuukauden aikana tapahtuvaa
    - a.) seksivälineiden ostoasi verkkokaupasta tai myymälästä?
    - b.) seksivälineiden käyttöäsi yksin tai kumppanin kanssa?
  - 7 Mitkä tekijät tai olosuhteet helpottaisivat seuraavan kolmen kuukauden aikana tapahtuvaa
    - a.) seksivälineiden ostoasi verkkokaupasta tai myymälästä?
    - b.) seksivälineiden käyttöäsi yksin tai kumppanin kanssa?
-

## Appendix 2 Cover letter and survey questionnaire

**Kysely asenteista seksivälineiden ostamista ja käyttöä kohtaan**

Arvoisa vastaaja,

Tervetuloa täyttämään kysely asenteistasi koskien seksivälineiden ostamista ja käyttämistä. Kysely on osa opinnäytetyötäni Turun kauppakorkeakoulun markkinoinnin oppiaineessa.

Tutkimuksen tarkoituksena on hahmottaa seksivälineisiin liittyviä uskomuksia ja asenteita sekä niihin vaikuttavia tekijöitä. Sinun ei ole tarvinnut ostaa tai käyttää seksivälineitä vastataksesi kyselyyn. Vastauksesi on erittäin tärkeä. Lomakkeen täyttäminen kestää noin 20 minuuttia.

Kyselyyn vastaaminen on täysin anonyymiä ja luottamuksellista, eikä osallistuneiden tietoja käytetä markkinointiin tai luovuteta eteenpäin. Eräitä henkilökohtaisia taustatietoja tarvitaan ainoastaan aineiston tilastolliseen luokitteluun. Opinnäytetyön ohjaajana toimii yliopistolehtori KTT Ulla Hakala.

Terveisin,

Elina Järvinen

[elkaja@utu.fi](mailto:elkaja@utu.fi)

**4. Mikä on sukupuolesi?**

Mies  Nainen  Muu

**5. Mikä on ikäsi?****6. Mikä on tämänhetkinen elämäntilanteesi?**

- Avo- tai avioliitossa  
 Seurustelusuhteessa  
 En ole vakituksessa parisuhteessa  
 Muu \_\_\_\_\_

7. Kuinka kauan nykyinen parisuhteesi on kestänyt?

- alle vuoden
- 1-2 vuotta
- 3-5 vuotta
- 6-10 vuotta
- yli 10 vuotta

8. Kotona asuvien lasten lukumäärä?

- Ei lapsia/Ei kotona asuvia lapsia
- 0–6-vuotiaiden lasten lukumäärä \_\_\_\_\_
- 7–17-vuotiaiden lasten lukumäärä \_\_\_\_\_
- yli 18-vuotiaiden lasten lukumäärä \_\_\_\_\_

Seksivälineillä tarkoitetaan esimerkiksi vibraattoreita, liukuvoiteita, penisrenkaita, dildoja, geishakuulia sekä eroottiseen leikkiin käytettäviä piiskoja ja sidontavälineitä.

**Sinun ei ole tarvinnut ostaa tai käyttää seksivälineitä vastataksesi kyselyyn.**

9. Kuinka usein käytät seksivälineitä?

- Päivittäin
- Viikottain
- Kuukausittain
- Muutaman kerran vuodessa
- Harvemmin kuin kerran vuodessa
- En lainkaan

10. Kuinka usein ostat seksivälineitä?

- 2-3 kertaa kuukaudessa tai useammin
- Kerran kuukaudessa
- Muutamia kertoja vuodessa
- Kerran vuodessa
- Harvemmin kuin kerran vuodessa
- En lainkaan



**15. Seksivälineiden ostaminen myymälästä tai verkkokaupasta seuraavan kuuden kuukauden kuluessa olisi minulle**

1 2 3 4 5 6 7

- haitallista ○○○○○○○○ hyödyllistä  
 epämiellyttävää ○○○○○○○○ miellyttävää  
 hyvä asia ○○○○○○○○ huono asia  
 ei nautinnollista ○○○○○○○○ nautinnollista  
 hyödytöntä ○○○○○○○○ hyödyllistä  
 viisasta ○○○○○○○○ typerää  
 epätoivottavaa ○○○○○○○○ toivottavaa  
 ei tärkeää ○○○○○○○○ tärkeää

**16. Seuraavassa on esitetty väittämiä koskien seksivälineiden ostamista ja käyttämistä seuraavan kuuden kuukauden aikana.**

Vastausasteikko: 1=ehdottomasti eri mieltä, 7=ehdottomasti samaa mieltä.

Keskikohta eli numero neljä on neutraali.

1 2 3 4 5 6 7

- Aion ostaa seksivälineitä. ○○○○○○○○  
 Haluaisin ostaa seksivälineitä. ○○○○○○○○  
 Suunnittelen ostavani seksivälineitä. ○○○○○○○○  
 On omasta päätöksestäni kiinni, ostanko seksivälineitä. ○○○○○○○○  
 Minun on mahdollista ostaa seksivälineitä. ○○○○○○○○  
 Jos haluaisin voisin ostaa seksivälineitä. ○○○○○○○○  
 Aion käyttää seksivälineitä. ○○○○○○○○  
 Haluaisin käyttää seksivälineitä. ○○○○○○○○  
 Suunnittelen käyttäväni seksivälineitä. ○○○○○○○○  
 On omasta päätöksestäni kiinni, käytänkö seksivälineitä. ○○○○○○○○  
 Minun on mahdollista käyttää seksivälineitä. ○○○○○○○○  
 Jos haluaisin voisin käyttää seksivälineitä. ○○○○○○○○

**16. Seuraavassa on esitetty väittämiä koskien seksivälineiden ostamista ja käyttämistä seuraavan kuuden kuukauden aikana.**



8. lisäisi kumppanin nautintoa ○ ○ ○ ○ ○ ○ ○ ○
9. aiheuttaisi minulle fyysistä kipua ○ ○ ○ ○ ○ ○ ○ ○
10. johtaisi jatkuvaan masturbointiini ○ ○ ○ ○ ○ ○ ○ ○
11. latistaisi tunnelmaa seksin yhteydessä ○ ○ ○ ○ ○ ○ ○ ○
12. johtaisi kumppanini negatiiviseen reaktioon ○ ○ ○ ○ ○ ○ ○ ○
13. tekisi seksistä parempaa ○ ○ ○ ○ ○ ○ ○ ○
14. tekisi seksistä monipuolisempaa ○ ○ ○ ○ ○ ○ ○ ○
15. saisi minut tuntemaan itseni naurettavaksi ○ ○ ○ ○ ○ ○ ○ ○
16. syventäisi suhdettani kumppaniini ○ ○ ○ ○ ○ ○ ○ ○
17. auttaisi minua seksuaalisen kiihottumisen ongelmassa (erektio, emättimen kostuminen) ○ ○ ○ ○ ○ ○ ○ ○
18. johtaisi siihen että leimaantuisin oudoksi ○ ○ ○ ○ ○ ○ ○ ○
19. olisi minusta noloa ○ ○ ○ ○ ○ ○ ○ ○
20. auttaisi lantionpohjan lihasteni treenaamisessa ○ ○ ○ ○ ○ ○ ○ ○
21. olisi minusta hauskaa ○ ○ ○ ○ ○ ○ ○ ○
22. auttaisi parisuhteeni hoidossa ja ylläpitämisessä ○ ○ ○ ○ ○ ○ ○ ○
23. aiheuttaisi riittävää ja erimielisyyksiä kumppanini kanssa ○ ○ ○ ○ ○ ○ ○ ○
24. auttaisi minua tutustumaan kumppaniini ○ ○ ○ ○ ○ ○ ○ ○
25. lisäisi kiinnostustani seksiin ○ ○ ○ ○ ○ ○ ○ ○
26. lisäisi saamani seksin määrää ○ ○ ○ ○ ○ ○ ○ ○
27. olisi jotain mistä en haluaisi puhua julkisesti ○ ○ ○ ○ ○ ○ ○ ○
28. auttaisi minua yhdyntää haittaavissa toimintahäiriöissä (ennenaikainen siemensyöksy, yhdyntäkipu) ○ ○ ○ ○ ○ ○ ○ ○
29. lisäisi seksuaalista halukkuuttani ○ ○ ○ ○ ○ ○ ○ ○

18. Valitse edellisistä väittämistä sinulle kolme tärkeintä väittämää ja merkitse ne numerolla tekstikenttään. Erotta numerot pilkulla. \_\_\_\_\_





Kumppanini kanssa ei ole riittävä ja erimielisyyksiä ○ ○ ○ ○ ○ ○ ○ ○

Kumppaniini tutustuminen ○ ○ ○ ○ ○ ○ ○ ○

Kiinnostukseni lisääntyminen seksiä kohtaan ○ ○ ○ ○ ○ ○ ○ ○

Seksin määrän lisääntyminen ○ ○ ○ ○ ○ ○ ○ ○

Minun ei tarvitse puhua seksivälineistä julkisesti ○ ○ ○ ○ ○ ○ ○ ○

Apu yhdyntää haittaaviin toimintahäiriöihin  
(ennenaikainen siemensyöksy, yhdyntäkipu) ○ ○ ○ ○ ○ ○ ○ ○

Seksuaalisen halukkuuteni lisääntyminen ○ ○ ○ ○ ○ ○ ○ ○

Vastaa seuraaviin väittämiin koskien seksivälineiden käyttöä.

**21.** Useimmat minulle tärkeät ihmiset

1 2 3 4 5 6 7

eivät hyväksyisi seksivälineiden käyttöäni ○ ○ ○ ○ ○ ○ ○ ○ hyväksyisivät seksivälineiden käyttöäni

**22.** Useimmat minulle tärkeät ihmiset ovat sitä mieltä, että minun

1 2 3 4 5 6 7

ei kannattaisi käyttää seksivälineitä ○ ○ ○ ○ ○ ○ ○ ○ kannattaisi käyttää seksivälineitä

**23.** Luulen, että useimmat ystäväistäni ovat käyttäneet seksivälineitä.

1 2 3 4 5 6 7

Ei pidä paikkaansa ○ ○ ○ ○ ○ ○ ○ ○ Pitää paikkaansa

**24.** Moni minulle läheinen ihminen olettaisi minun käyttävän seksivälineitä seuraavan kuuden kuukauden aikana.

1 2 3 4 5 6 7

Erittäin epätodennäköisesti ○ ○ ○ ○ ○ ○ ○ ○ Erittäin todennäköisesti

Vastaa seuraaviin väittämiin koskien seksivälineiden ostamista.











- |  |   |
|--|---|
| kumppanini tekee aloitteen seksivälineiden käytöstä                | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ystäväni suosittelevat minulle seksivälineitä                      | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| yhteiskunnallinen ilmapiiri on seksivälineitä kohtaan hyväksyvämpi | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| oma kiinnostukseni seksivälineitä kohtaan lisääntyy                | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| kumppanini ja minä pysymme terveinä                                | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| uskallukseni koskien seksivälineitä lisääntyy                      | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| saan riittävästi seksiä  | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| en ole liian väsynyt käyttääkseni seksivälineitä                   | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| minulla on tarpeeksi yksityisyyttä ja omaa rauhaa                  | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| omat tai kumppanin lapset eivät vaikuta seksivälineiden käyttöni   | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ulkopuoliset eivät näe seksivälineitani                            | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| kukaan ei saa tietää seksivälineiden käytöstäni                    | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| saan lisää tietoa seksivälineiden käytöstä                         | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |

Kerro lopuksi itsestäsi vielä seuraavat taustatiedot:

**39. Mikä on seksuaalinen suuntautumisesi?**

- täysin heteroseksuaalinen
- pääasiassa heteroseksuaalinen, satunnaisesti homoseksuaalinen
- pääasiassa heteroseksuaalinen, enemmän kuin satunnaisesti homoseksuaalinen
- yhtäläisesti hetero- ja homoseksuaalinen
- pääasiassa homoseksuaalinen, enemmän kuin satunnaisesti heteroseksuaalinen
- pääasiassa homoseksuaalinen, satunnaisesti heteroseksuaalinen
- täysin homoseksuaalinen
- aseksuaalinen

**40. Mikä on koulutuksesi? Valitse seuraavista korkein koulutusaste, jonka olet suorittanut**

- Kansa-, perus- tai keskikoulu
- Ammattikoulu, lukio

- Opistotasoinen tutkinto
- Ammattikorkeakoulu
- Yliopisto- tai korkeakoulututkinto

**41. Mikä on tämänhetkinen elämäntilanteesi?**

- Palkkatyössä tai työskentelen omassa yrityksessä
- Opiskelen
- Työtön/työnhakija
- Olen äitiys/vanhempainvapaalla tai hoitovapaalla
- Eläkkeellä/sairaseläkkeellä
- Hoidan omaa kotitaloutta
- Varusmies- tai siviilipalveluksessa

**42. Arvioi omat vuositulosi veroja vähentämättä (eli bruttoansiosi)**

- 9 999
- 10 000 – 19 999
- 20 000 – 29 999
- 30 000 – 39 999
- 40 000 – 49 999
- 50 000 – 59 999
- 60 000 – 79 999
- 80 000 – 99 999
- 100 000 –

**43. Kuvaile tämänhetkistä asuinalueettasi?**

- kaupunkimainen
- lähiömäinen
- maaseutumainen

**44. Mikä on asuinpaikkasi?**

- Helsinki-Uusimaa
- Etelä-Suomi
- Länsi-Suomi
- Pohjois- ja Itä-Suomi
- Ahvenanmaa - Åland