ERASMUS SCHOOL OF ECONOMICS

ERASMUS UNIVERSITEIT ROTTERDAM

Don't Worry, Be Shopping

An empirical study to the associations between happiness, leisure shopping and the online shopping experience

Mark Littooij
367666

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Supervisor: dr. Spyridon Stavropoulos
Department of Applied Economics
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Abstract

This study examines the association between leisure shopping or the online shopping experience and happiness using a self-generated dataset. This research makes use of four ordered probit models and two OLS-regressions. The study finds that only leisure shopping is (positively) affecting overall happiness. Second, both leisure shopping and the online shopping environment positively affect the Affect Balance Scale but leisure shopping does it to a stronger extent. Third, leisure shopping increases life satisfaction for people above the age of 38 but decreases life satisfaction for people younger than 37, and the online shopping environment does not affect life satisfaction at all. This study shows that retailers with bricks-and-mortar stores can provide a happier shopping experience to the consumer and thereby outclass their online competitors.

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Introduction

The fastest growing retail market in Europe and North America is E-commerce. According to Statistics Netherlands (CBS, 2016), the online retail market in the Netherlands increased from 24 percent in 2010 to 42 percent in 2015. Online sales are increasing and more retailers sell via their online stores. This increase in online sales is at the expense of the tradition bricks-and-mortar warehouses and will eventually reduce their market share (Centre for Retail Research, 2015). There is a tendency of Dutch clothing retailers getting in serious difficulty. On December 31st 2015 the Dutch court declared one of the oldest Dutch department store chains Vroom & Dreesmann (V&D) bankrupt (NOS, 2015). Macintosh, a major shoe retailer, was declared bankrupt in the same period (NRC, 2015). On August 5th 2016 another major clothing retailer, MS Mode, called for an automatic stay (NRC, 2016). Retail experts stated that the insufficient anticipation on the boom in online sales was a major reason for retail bankruptcies (Lexology, 2015). The retailers could not compensate the increase in E-commerce with their bricks-and-mortar stores.

From a happiness research perspective, the consumer's move to online shopping is contradictory. In the literature, leisure expenditures are one of the few expenditures significantly contributing to happiness (DeLeire & Kalil, 2010; Dumludag, 2015; Noll & Weick, 2015; Zhang & Xiong, 2015). When you consider shopping in a physical store as a leisure activity, traditional shopping should make consumers happier compared to buying the same clothes online. This inspired me to investigate the association between happiness and the hedonic levels of affect of leisure shopping and the online shopping experience.

The purpose of this paper is to explore the contributions of leisure shopping and the online shopping experience to happiness. Moreover, this paper explores to what extent leisure shopping increases happiness more compared to the online shopping experience. I constructed a 77-questions questionnaire and 246 respondents filled in the online survey. The data is analysed using an ordered probit model and OLS-regression. The models test whether the hedonic levels of affect of leisure shopping and the online shopping experience significantly affect happiness while controlling for personal and shopping behaviour traits. The results of the first three ordered probit model suggests that only leisure shopping is significantly contributing to overall happiness and the online shopping experience is not. Furthermore, the fourth ordered

probit model computes that leisure shopping stronger positively affects the Affect Balance Scale compared to the online shopping experience. Moreover, the OLS-regression suggests that leisure shopping decreases life satisfaction for people under the age of 37 but increases life satisfaction for people older than 38 years. Besides, in the OLS-regression the online shopping experience is also not contributing to happiness. These findings are in accordance with previous literature on leisure and online shopping. The study has implications for managers in the retail business, though it is subject to limitations.

Literature review

Concept of Happiness

"Happiness is the meaning and the purpose of life, the whole aim and end of human existence." Aristotle (364 B.C. – 322 B.C.) was one of the first philosophers who addressed the question how to achieve greater happiness. In Aristotle's view happiness had a eudaimonia definition: happiness consists of possessing the greatest goods available (Tatarkiewicz, 1976). Unfortunately, Aristotle could not come up with an all covering answer to the question 'how to achieve greater happiness'. However, the fact that happiness plays an important role in human's life was widely acknowledged. Thomas Jefferson even incorporated the 'right to pursuit happiness' in his Declaration of Independence, among the unalienable rights of 'Life' and 'Liberty' (Digital History, 2016). Jeremy Bentham was the first man who clearly explained the concept of 'happiness', at the beginning of the modern time. Bentham stated that laws and regulations must accomplish 'the greatest happiness for the greatest number'. In his view, happiness is 'the sum of pleasures and pains' and the highest value that can be achieved (Bentham, 1789). Notwithstanding, it is unclear what Bentham really meant with his definition of happiness and it is difficult to place it in today's classification of satisfaction (Veenhoven, 2002). Still though, Bentham can be seen as the founder of the 19th century movement of Utilitarianism.

The Utilitarians pursued the subject and used the definition of Bentham to further develop the concept of happiness. This Utilitarian thought is still of major importance in modern society: 'happiness is one of the end-values in today's welfare state' (Veenhoven, 1991). The subject of happiness re-entered the scientific spotlights when Easterlin (1974) found his puzzling paradox: 'while across individuals and countries higher income results in higher happiness, over time income growth is not associated with higher happiness levels'. The generally accepted explanation for the Easterlin paradox is the relative income hypothesis, in which the impact of income depends on expectancies, spending habits and social comparisons (Dumludag, 2015).

The term happiness is used in different disciplines and thus there are several concepts of happiness (Stanca & Veenhoven, 2015). Veenhoven updated the definition of happiness to modern times and came with a new classification of satisfaction (see *Table 1*).

Table 1: Four forms of satisfaction (Veenhoven, 2002)

	Passing	**Enduring**
Life Aspects	Instant satisfaction	Domain satisfaction
Life as a Whole	Top experience	Life satisfaction (Overall happiness)

Life satisfaction is the ultimate form of happiness. It is the 'overall appreciation of one's life as a whole'. Furthermore, it is 'the quality of life in the eye of the beholder' (Stanca & Veenhoven, 2015). According to Veenhoven (2010), *life satisfaction* is the only form that denotes a satisfying life. The 'overall happiness' has two components: an affective compenent, 'how well they feel most of the time', and a cognitive component, 'to what extent their life meets their wants' (Veenhoven, 2009). This research focusses on the affective component of *overall happiness*, because the relation between the cognitive component and *leisure* has been insufficient emperically assessed.

The affective component consists of the person's emotions, affect, and moods. Emotions are 'short-live reactions tied to specific events or externalstimuli' (Frijda, 1999), whereas moods are 'diffuse affective feelings that may not be tied to a specific event' (Morris, 1999). The affective component is also called the *hedonic level of affect* (Veenhoven, 2010). The positive affect is 'the extent to which a person feels enthusiastic, active, and alert'. The negative affect is 'subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states'. In general, individuals report higher levels of positive affect than negative affect (Watson, Clark, & Tellegen, 1988). Some researchers use happiness simultanously with subjective well-being (SWB). SWB represents the satisfaction with life and the inner outcome of life; it is the individual's own assessment of his or her own life. SWB is a multifaceted concept, including satisfaction (both domain and life satisfaction), and positive and (low) negative affect (Diener, Scollon, & Lucas, 2009). Subjective well-being can be a useful estimate of utility (Frey & Stutzer, 2002). However, consumption is not the only determining factor of subjective well-being (Dutt, 2006). Other factors determining subjective well-being include income, age, education level, marital status, and gender (e.g. DeLeire & Kalil, 2010). The Affect Balance Scale (ABS) is a widely used measure of the affective component of SWB (Lyubomirsky & Lepper, 1999). Life satisfaction, overall happiness and the ABS will all be treated as concepts of happiness in this study, and will be independently measured in its own way.

Materialism

The seek of materialism is an other aspect of the pursuit of happiness. Materialism is a value that guides people's choices and conduct in a variety of situations, including, but not limited to, consumption arenas. With respect to consumption, materialism will influence the type and quantity of goods purchased. Materialists pursue happiness through the purchase of products, suchs as clothing, and materialists belief that the acquisition and possession of products lead to happiness and life satisfaction. The number of goods indicate the success (Richins & Dawson, 1992). More materialistic consumers belief they spend more time and money on shopping (Hudders & Pandelaere, 2012). However, literature suggests that consumers with materialistic goals tend to experience lower happiness (Kashdan & Breen, 2007; Christopher, Saliba, & Deadmarsh, 2009).

Happiness and consumption expenditures

In the recent decades the economic literature on happiness mainly focussed on the income effect on happiness (Stanca, 2010). However, maybe the goods and services that income is spent on create happiness. Meyer & Sullivan (2003) argue that consumption is a better measure of material well-being than income. The level and quality of an individual's consumption ultimately determines his/her standard of living (Noll & Weick, 2015). Three hypotheses explain why (the level of) consumption is a better tool to measure happiness rather than (household) income. First, increased consumption of goods may reduce material hardship and makes life easier, thereby improving happiness. Second, the consumption of 'conspicuous' goods may increase the individual's self-perceived status, thereby enhancing happiness. Third, (leisure time related) consumption may increase happiness via social relationships. These three hypotheses suggest that income can buy happiness (DeLeire & Kalil, 2010). Various consumption patterns in relation to happiness have been researched. The studies conclude that expenditures on *nutrition*, *health care*, *housing and energy*, *furniture and housing facilities*, *hotels and restaurants* and *communication* are not contributing to happiness (DeLeire & Kalil, 2010; Noll & Weick, 2015). Furthermore, there is no gain in happiness due to the 'consumption' of vehicles, when controlling for income (Okulicz-Kozaryn, Nash, & Tursi, 2015). Moreover, consumption of luxury goods does not add to long lasting happiness. Though this consumption may increase

happiness in the short run, individuals will not derive happiness in the long run (Hudders & Pandelaere, 2012). Due to the hedonic adaptation, individuals get used to luxury goods (Okulicz-Kozaryn et al., 2015). However, some studies contradict eachother. Noll & Weick (2015) found expenditure on *clothing* positively affecting happiness, where DeLeire & Kalil (2010) did not find a significant assocsation. Furthermore, Dumludag (2015) concludes the consumption of durable goods increases happiness, where Noll & Weick state there is no siginficant contribution. Interestingly, all the studies do conclude that expenditures on *leisure activities* significantly increase happiness (DeLeire & Kalil, 2010; Dumludag, 2015; Noll & Weick, 2015; Zhang & Xiong, 2015). Like the psychology literature (Frank, 1985) advises, too, individuals should spent their income on experiental consumption rather than materialistic consumption. Altogether, the different studies do not agree on which consumption expenditures contribute to happiness. And while various consumption expenditures have been investigated, not all consumption goods are covered yet.

This study will focus on the consumption combination of *leisure* and *clothing*. *Leisure* is defined as 'time away from unpleasant obligations' (Stebbins, 2001). Three types of leisure can be distinguished, where this study focusses on casual leisure. Casual leisure is less substanstantial and offers no 'leisure career' (Nawijn & Veenhoven, 2012). *Leisure* can be seen as a plausible 'social' good. There is a social and relational component in *leisure* and through its social effect it positiviely affects subjective well-being. DeLeire & Kalil (2010) investigated the relation between subjective well-being and *leisure* for American people over the age of 50. They concluded that *leisure* adds to happiness due to 'reducing loneliness and increasing embeddedness in social networks'. They estimated that an additional $ 10,000 in *leisure* expenditures increases happiness with 0.17 percent point. This all confirms the social value of *leisure*.

The literature on the relation between *clothing* and happiness indicates a contradiction. Some research found no significant correlation between *cloting* and subjective well-being (DeLeire & Kalil, 2010), but others did. Noll & Weick (2015) found a positive effect of *clothing* expenditures on subjective well-being. They suggest this association is plausible due to the signaling effects of *clothing*. In this situation *clothing* is a 'conspicuous' good: clothing is highly visible and consumers show status and wealth through their clothes. Consumers try to obtain non-market goods, for example respect, admiration, authority, and relationships. Clothing can contribute to obtain these non-

market goods. Additionaly, non-market goods can lead to a happiness gain (Perez-Truglia, 2013). At the same time, a distinction must be drawn between ordinary clothes and luxury (branded) clothes. Consumers who are able to meet their basic needs, are more likely to be happier. This gain in happiness is independent of social comparison, exception, and adaptation (Veenhoven, 1988; 1991). Ordinary clothes are linked to the basic needs. Since the nature of clothing expenditures is ambigous, clothing must be considered both 'conspicuous goods' and basic needs (Noll & Weick, 2015).

Leisure shopping

The fashion industry is a big bussiness. The total turnover of the European fashion industry was 562 billion euros in 2009 (Fashion United, 2016). For some consumers the reasons to shop are of an entertaining nature rather than the acquisition of goods; they make shopping a day activity. These reasons include shopping enjoyment (of the shopping process) and the 'shopping mall as a habitat'. Shopping enjoyment refers to the decision of consumers to use a surrogate shopper (a friend) in the shopping process and build a relationship with the salespeople. The 'shopping mal as a habitat' includes gazing at mall exibits, interaction with other shoppers and browsing without the intention to buy (Bloch, Ridgway, & Dawson, 1994). These consumers experience shopping as entertaining or recreation. These experiences are similar to leisure or recreational experiences (Jones, 1999). The shopping motives have a pleasure and leisure nature. Therefore, shopping of clothing can be labeled as a leisure activity and will be refered to as *leisure shopping*. *Leisure shopping* is exclusively browsing at and the acquisition of clothings via a physical distribution channel (i.e. bricks-and-mortar stores). In *leisure shopping* the shopping itself is only part of the whole experience (Babin, Darden, & Griffin, 1994; Howard, 2007). Arnold & Reynolds (2003) have used this definition to further investigate *leisure shopping* and its hedonic aspects. The authors have set up a hedonic motivation model and identified six hedonic shopping motivations. The first motivation is 'adventure shopping': the consumer seeks thrill, stimulation and excitement in shopping and feels being in an other world. Babin et al. (1994) earlier found this experiental shopping motivation. The second motivation is 'social shopping': consumers extract enjoyment from shopping and socializing with friends and family. The social component of *leisure shopping* is an important determinant of subjective well-being. The third motivation is 'gratification shopping':

consumers use shopping to relief stress or mitigate a negative mood. Babin et al. (1994) quoted a participant in their research: 'I enjoy shopping when it helps me forget my problems.' The fourth motivation is 'idea shopping': consumers want to keep up with new fashions and trends or to seek new products. Tauber (1972) identified that many consumers want to keep up with the latest fashion trends. The fifth motivation is 'role shopping': consumers derive enjoyment joy from shopping for others. Moreover, shopping is an expected activity for particular consumers and it plays a role in their social life (Tauber, 1972). The sixth motivation is 'value shopping': consumers enjoy hunting sales and finding discounts. Consumers may derive joy and excitement from the act of bargaining (Babin et al., 1994).

Based on the literature this paper assumes shopping in bricks-and-mortar stores is a leisure activity and, therefore, hypothesizes that:

H$_1$: Leisure shopping positively affects happiness.

Online shopping experience

The counterpart of *leisure shopping*, online shopping, is rapidly taking its share of the retail market and will increasingly do so in the future (The Telegraph, 2015; Statista, 2016). The online shopping environment can create experiental value for the online customer, through arousal, playfulness, and positive affect (Bridges & Florsheim, 2008). The online transaction can thus be an experience as such. Tamimi, Rajan & Sebastianelli (2003) define the online shopping experience (*OSE*) as a four stage process. The consecutive stages include encountering the site's home page, selecting a product, completing an order form, and finally the customer service and support. Concerning the first two stages, particular website features, like web layout and product presentation, can create a unique and enjoyable customer experience (Jeong, Fiore, Niehm, & Lorenz, 2009). Furthermore, visual aspects of the website features, like visual priming and colours, may generate trust and a quality guarantee (Trevinal & Stenger, 2014). Trevinal & Stenger (2014) also underline a social dimension of the *OSE*. The first compenent of this social dimension is online consumer reviews. Via these reviews, consumers use other customers' opinions in their purchase decision. The second compenent is social interaction with friends on socio-digital networks. Some consumers indicate they chat with 'friends' while they are browsing, and ask for

their opinion when considering a purchase. A third compenent, though less prominent, is co-presence. Consumers sometimes shop online with family or friends next to them. The authors conclude that consumers may have hedonistic reasons for shopping online. To, Liao & Lin (2007) used the hedonic motivations model by Arnold & Reynolds (2003) to study the influence of hedonic motivation (together with utilitarian motivation) on Internet shopping. The researchers subdivided the hedonic motivation in five categories. The five categories To, Liao & Lin use are: 'adventure/explore', consumers seek something interesting and novel and experience some form of curiousity while browsing the Internet; 'social', by sharing information and shopping experiences online consumers have an online social interaction; 'idea', consumers discover new trends on the Internet; 'value', consumers find dicounts and the 'best' deal on the Internet; and 'authority and status', consumers have control over product presentation, ordening, and delivery on the Internet. To, Liao & Lin found only 'adventure/explore' and 'authority and status' to be significantly contributing to hedonic motivation. The articles concludes, consistent with Bridges & Florsheim (2008), that hedonic motivation, compared to utilitarian motivation, is more important in *leisure shopping* than in online shopping, and vice versa. More important, the article states there is a link between the *online shopping experience* and hedonic value. Hedonic shopping value is the shopping's potential entertainment and emotional worth (Bellenger, Steinberg, & Stanton, 1976).

Based on the literature this paper assumes there is hedonic value in the *OSE* and, therefore, hypothesizes that:

H$_2$: The online shopping experience positively affects happiness.

Difference between leisure shopping and online shopping experience.

Though online shopping focusses more on the acquisition of goods, compared to *leisure shopping*, there still is a an online shopping experience as such. The *OSE* partly covers the 'shopping enjoyment'. Some online consumers use co-presence while they are browsing. However, there is no interacting with salespeople in online shopping. Moreover, *OSE* touches 'the shopping mal as a habitat' since online consumers use customer reviews to interact with other customers and sometimes explore the retail websites without the intention to buy. But gazing at mall exibits is not part of the *OSE*.

For online retailers this is less important, since utilitarian value increases online buying rather than experiental value. On the other hand, the customer group who is browsing or exploring prefers a more exciting website (Bridges & Florsheim, 2008). The research by To et al. (2007) has one other important implication. In their model the 'social' shopping motivation is insignificant. This implies that consumers who seek social interaction in shopping prefer *leisure shopping* over *online shopping*. This statement is consistent with past literature in this domain (Rohm & Swaminathan, 2004). This missing social component can be explained by the fact that online consumers have no interaction with salespeople (Li, Kuo, & Russell, 1999) and therefore perceive more risks (Sarkar, 2011), though some consumers prefer online shopping to escape from salesperson (Wolfinbarger & Gilly, 2001; Ozen & Engizek, 2014). Moreover, hedonic consumers do not contribute to online communication, like product reviews and product related social network sites (Kim & Eastin, 2011). However, the social component is important in creating happiness and since this is less present in *OSE*, this paper hypothesizes that:

H_3: The positive association of leisure shopping and happiness is stronger compared to the online shopping experience and happiness.

Though the topics of leisure and clothing has been discussed seperetly in the happiness economic literature, the field of these two determinants in combination is undiscovered. This paper dives into this gap. Moreover, none of the existing literature has yet explored if a specific definition of *leisure* related to shopping adds to happiness. The fact that this paper explores whether 'leisure shopping' affects happiness forms an additional robustness test for *leisure* in general. Last but not least, this paper investigates if *leisure shopping* and/or the *online shopping experience* contribute to happiness. There is no existing literature that states that the hedonic value that consumers extract from online shopping leads to happiness. The research in this paper will be conducted by means of the following research question:

'To what extent does leisure shopping affect happiness compared to the online shopping experience?'

Data

Data collection

This study uses a self generated dataset. I constructed a 77-questions questionnaire to collect the data. The data collection started on the 31st of May 2016 and ended on the 22nd of June 2016. The questionnaire was distributed via social media and e-mail. 246 data entries were collected in this period. However, only 102 responses were filled out completely and useful to analyze. The questionnaire was completely anonymous. The questionnaire was in English, but to prevent misinterpretation of the question some 'difficult' words were translated to Dutch so every respondent could exactly understand what was meant with each question. The dataset regards cross-section data and has a within-subjects design.

From the total sample, 47% is male and the average age is 40 years old. The yearly total income is, on average, between 24,000 and 36,000 euros.

Instrumental Design

The respondents had to answer 77 items divided over six parts. The first part of the questionnaire captures the three concepts of happiness. It consists of 3 questions about the self-assessed happiness and mood of the respondent. The second part measures the hedonic level of affect of leisure shopping. This part consists of 18 items about the respondent's leisure shopping activities and their attitude towards this. The third part measures the hedonic level of affect of the online shopping experience. The third part measures the hedonic level of affect in the same way as for leisure shopping. The fourth part is six statements that capture the respondent's level of materialism. The fith part consists of four questions concerning the respondent's financial situation. The last part of the questionnaire are the personal traits questions. This part consists of six questions about gender, age, occupation, marital status, self-assessed health and educational level. For the entire questionnaire see *Appendix: Questionnaire*.

Methodology

The variables and measures used in this research are described below.

Outcome: Happiness

Three different measures of happiness are used as dependent variable, namely 'overall happiness', the Affect Balance Scale and 'life satisfaction'. The first three models use 'overall happiness' as dependent variable, the fourth model uses the ABS as dependent variable and the fifth and sixth model use 'life satisfaction' as dependent variable.

Overall Happiness

In the questionnaire, overall happiness is measured by the question: *Overall, how happy would you say you currently are?* This question had to be answered on a nine-point Likert scale with the answer options: extremely happy – happy – somewhat happy – moderately unhappy– neither happy nor unhappy – somewhat unhappy – moderately unhappy – happy – extremely unhappy. This question is more often used in happiness research, e.g. Economic and Social Research Institute (2012). 'Overall happiness' is treated as an ordinal variable, because questions using a Likert scale generate data in the form of ordinal responses (Daykin & Moffatt, 2002). Furthermore, this paper assumes that the relative distance between answer options is unknown to respondents, which makes cardinal interpretation impossible. However, respondents are consistent in their interpretation of the natural order, which makes the responses ordinally comparable (Ferrer-i-Carbonell & Frijters, 2004; Van Praag, Frijters, & Ferrer-i-Carbonell, 2003).

Affect Balance Scale

The Affect Balance Scale is a measure of happiness constructed by Bradburn & Caplovitz (1965). Respondents had to answer 'Yes' or 'No' to five positive affect and five negative affect questions. The ten questions are:

During the past few weeks (did you feel)…

Did you feel particularly excited or interested in something?

Proud because someone complimented you on something you had done?

Pleased about having accomplished something?

On top of the world?

That things were going your way?

Did you feel so restless that you couldn't sit long in a chair?

Very lonely or remote from other people?

Bored?

Depressed or very unhappy?

Upset because someone criticized you?

For every 'Yes' the respondents receives a point. The ABS-score is computed by subtracting the negative affect score from the positive affect score, and thus ranges from -5 to 5 (Fetzer Institute, 2016). The respondents' answers are dichotomous and the relative distance between the ABS-scores is unknown to respondents. Consequently, the ABS is treated as an ordinal variable.

Life Satisfaction

In the questionnaire, life satisfaction is measured by the self-anchoring ladder rating of life by Cantril (1965). The question is '*Imagine a ladder. Suppose we say that the top of the ladder represents the best possible life for you and the bottom represents the worst possible life for you. Where on the ladder do you feel you personally stood within the last month ?*' and had to be answered on an eleven point ladder. Cantril's scale originally consists of five questions but research indicates that responders can answer this single question correctly in isolation (Veenhoven, 2002). In consistence with former happiness literature, Cantril's ladder is treated as a cardinal variable (Deaton, 2012; Boarini, Comola, De Keulenaer, Manchin, & Smith, 2013).

Independent variables: Hedonic level of affect

The variables of interest are the 'hedonic level of affect of leisure shopping' and 'the hedonic level of affect of the online shopping experience (OSE)'. The hedonic level of affect is the extent to which a person feels enthusiastic, active, and alert or a variety of negative mood states towards leisure shopping (Watson, Clark, & Tellegen, 1988). The respondents had to answer fifteen statements on a five-point Likert scale for both leisure shopping and the OSE. The statements were based on survey questions used in former literature (Kozma & Stones, 1980; McGreal & Joseph, 1993; Babin, Darden, & Griffin, 1994; Neal, Sirgy, & Uysal, 1999; Chen-Yu & Seock, 2002; Hills & Argyle, 2002). Both the variables 'hedonic level of affect of leisure shopping' and 'the hedonic

level of affect of the OSE' are the mean values of the individual responses to the fifteen statements. The fifteen statements about leisure shopping have a combined Cronbach's alpha of α=0.9024 and the fifteen statements about the online shopping experience have an alpha of α=0.8445 (see *Appendix: Cronbach's Alpha*). These values of alpha are satisfactory (Bland & Altman, 1997) and indicate that the statements are quite consistent with the constructs to be measured.

Control variables

The model uses two types of control variables, namely the personal traits and the shopping behaviour traits.

Personal traits

The following personal traits control variables are used in the model:

Frequency of Leisure Shopping A dummy variable for the answer to the question "How often do you shop as a leisure activity?"; 'Every day', Several days a week', 'Once a week', 'Several days a month', or 'Once a month'(=1) or 'Less than once a month', or 'Never' (=0).

Frequency of the Online Shopping Experience A dummy variable for the answer to the question "How often do you shop online for clothes?"; 'Every day', Several days a week', 'Once a week', 'Several days a month', or 'Once a month' (=1) or 'Less than once a month', or 'Never' (=0).

Gender Is either 'Male' (= 1) or 'Female' (= 0).

Age Is the respondent's age in years. Respondents are divided in four age groups: < 24, 24 – 41, 42 – 53, and > 54.

Financial situation satisfaction The respondent's response to the question "How satisfied are you with your financial situation? 0 means that you are not at all satisfied with your financial situation, and 10 means that you are entirely satisfied" answered on an eleven point ladder.

Total income Is the respondent's total income in 2015 (including wages, pension, student grant or any other social benefit). The possible options were: less than 8,000 euros; 8,000 – 16,000 euros; 16,000 – 24,000 euros; 24,000 – 36,000 euros; 36,000 – 48,000 euros; 48,000 – 60,000 euros; 60,000 euros or more.

Health Is the respondent's self-assessed health in general choosing either: very good, good, fair, bad, or very bad.

Marital status Is the respondent's marital status. The answer options were: married or cohabitation agreement; never been married or never had a cohabitation agreement; separated; divorced; widow or widower.

Shopping behaviour traits

Materialism Is 'a value that guides people's choices and conduct in a variety of situations, including, but not limited to, consumption arenas. With respect to consumption, materialism will influence the type and quantity of goods purchased' (Richins & Dawson, 1992). Materialism is measured using a construct of four statements on a five-point Likert scale: '*I would buy a garment just because it has status*', '*Clothing is more valuable to me if it has some snob appeal*', '*I would be happier if I could afford to buy more clothes*' and '*I pay much attention to the luxury clothes other people wear*' (Richins & Dawson, 1992; Eastman, Goldsmith, & Flynn, 1999). Cronbach's alpha for these statements is $\alpha=0.8510$, and thus sufficiently consistent with the construct to be measured. The mean value of the respondent's responses to the four statements is the value for Materialism.

Adventure Is a dummy variable measure whether the respondent agrees with the statement 'to me, leisure (online) shopping is an adventure'.

Value Is a dummy variable measure whether the respondent agrees with the statement 'I shop in physical stores (an online environment) to take advantage of sales'.

Role Is a dummy variable measure whether the respondent agrees with the statement 'I enjoy leisure (online) shopping for close relatives'.

Idea Is a dummy variable measure whether the respondent agrees with the statement 'I shop in physical stores (an online environment) to keep up with the trends'.

Social Is a dummy variable measure whether the respondent agrees with the statement 'I shop in physical stores (an online environment) to socialize with close relatives or others'.

Gratification Is a dummy variable measure whether the respondent agrees with the statement 'When I am in a down mood, I go leisure (online) shopping to make me feel better'.

Acquire Is a dummy variable measure whether the respondent agrees with the statement 'I shop in physical stores to acquire new clothes'.

Ordered Probit

In order to explore the effect of the hedonic level of affect of both leisure shopping and the OSE on overall happiness and the ABS, I specified an ordered probit model. Given the fact that the dependent variable overall happiness and the ABS are an ordered categorical measure, the estimated model is an ordered probit model (Greene, 2011). Several reasons justify the use of an ordered probit model in case of an ordinal dependent variable. First, linear regression assumes that the difference between the response, for example, *happy* and *somewhat happy* is the same as between *somewhat happy* and *moderately happy*, though there is no logical reason to assume this. Second, it is not the case that different responders have exactly the same attitude towards the same answer options. Third, ordered probit avoids framing effects caused by the wordings of the question (Daykin & Moffatt, 2002). Besides, Stevenson & Wolfers (2008) use an ordered probit model with ABS as dependent variable.
The equation of the model looks as follows:

$$H_j = \Omega \text{ Leisure }_j + \Theta \text{ OSE }_j + \sum \text{ Personal traits }_j + \beta \text{ Shopping behaviour traits }_j + \varepsilon_j$$

where H_j is a self-report measure of happiness (either overall happiness or ABS-score) for individual j, *Leisure* is a vector of hedonic level of affect of leisure shopping of individual j, *OSE* is a vector of hedonic level of affect of the OSE of individual j, *Personal traits* is a vector of personal traits of individual j, *Shopping behaviour traits* is a vector of personal shopping behaviour traits of individual j, and ε_j is a residual error.
Three models are estimated with overall happiness as dependent variable. The first model includes 'hedonic level of affect of leisure shopping' as explanatory variable and 'personal traits' and 'shopping behaviour traits' as control variables. The second model includes 'hedonic level of affect of the OSE' as explanatory variable and 'personal traits' and 'shopping behaviour traits' as control variables. The third model includes 'hedonic level of affect of leisure shopping' and 'hedonic level of affect of the OSE' as explanatory variables and 'personal traits' and 'shopping behaviour traits' as control variables.

The fourth model is estimated with the ABS-score as dependent variable. The model includes 'hedonic level of affect of leisure shopping' and 'hedonic level of affect of the OSE' as explanatory variables and 'personal traits' and 'shopping behaviour traits' as control variables.

Ordinary Least Squares

An OLS-regression is specified to check for potential interaction effects and the moderating role of age. The fifth and sixth model use life satisfaction as the dependent variable. It is justified to treat life satisfaction as a cardinal variable, though it is measured ordinal, because in a regresssion the results do not change substantially (Ferrer-i-Carbonell & Frijters, 2004). The regression used in this model is:

$LS = c + \Omega\ Leisure + \Theta\ OSE + \beta_1 Leisure*Age + \beta_2 OSE*Age + \beta_3 Materialism + \sum Personal\ traits + \varepsilon$

where c is the constant, *LF* is a self-reported measure of life satisfaction, *Leisure* is a vector of hedonic affect of leisure shopping, *OSE* is a vector of hedonic affect of the OSE, *Leisure*Age* is an interaction of hedonic affect of leisure shopping and age, *OSE*Age* is an interaction of hedonic affect of the OSE and age, $\beta_3 Materialism$ is a vector of materialism, *Personal traits* is a vector of personal traits, and ε is a residual error. Contrary to the previous models, all the control variables are treated as continuous variables in this model. The model includes interaction effects to test to what extent age moderates the contribution of the hedonic levels of affect to happiness.

Propensity Score

Propensity score is 'the conditional probability of receiving a treatment given pretreatment characteristics' (Rosenbaum & Rubin, 1983) and a measure to ensure robustness of the results. This paper will compare the overall happiness of the respondents within the 25% best scores on hedonic level of affect of leisure shopping with the other 75% of the respondents. The treatment and control group are artificially created and a respondent is either in the treatment or control group. Therefore, propensity score matching implies some degree of speculation (Rosenbaum & Rubin, 1983). The treatment group will be referred to the respondents who had the highest 75% scores on hedonic level of affect of leisure shopping and the control group will be

referred to the respondents who had the lowest 25% scores on hedonic level of affect of leisure shopping. This division is chosen based on a rule of thumb. The effect of the treatment will be referred to as the average treatment effect on the treated (ATT). The matching process uses a probit model including the following variables: frequency of leisure shopping and online shopping, yearly total income, age, gender, marital status, health, financial situation satisfaction, materialism, and personal shopping traits. Two types of propensity score methods are used in this paper, namely Nearest Neighbour Matching (NNM) and Kernel Matching (KM). In Nearest Neighbour a propensity score is computed for a treated unit and is matched with a control unit with the closest propensity score. Once all units are matched, the ATT is computed by the differences of all matches. One of the drawbacks of NNM is that all treated units are matched, even though the propensity scores are very different. KM matches using the weighted averages of all control variables. The inverse distance between the treated and control units determines the proportional weights (Becker & Ichino, 2002).

All variables are included in the propensity score matching because for all variable holds it is either related to the outcome or a proper covariate (Rubin & Thomas, 1996). Possible residual bias in the propensity score is evidence of potential bias in estimated treatment effects (Rosenbaum & Rubin, 1983). This paper uses a maximum bias of 10.0 for the propensity score to be considered as unbiased. This threshold value is a rule of thumb rather than a strict cut-off (Harder, Stuart, & Anthony, 2010). Propensity scores are computed for the models 1, 2, 3, and 4 in this study.

Variance Inflator Factor

The variance inflator factor (VIF) is a method to quantify collinearity in a regression model. The method shows the amount of variability of an independent variable that is explained by the other independent variables in the model, due to correlation among those variables. The rule of thumb for a maximum VIF-score is 10. A VIF of 10 implies that 90% of the variance in that independent variable is explained by the other independent variables (Craney & Surles, 2002). VIF-scores above the threshold value are reason of concern for multi-collinearity (Mason, Gunst, & Hess, 1989). The VIF-scores of model 5 and 6 are computed in this study.

Results

The results of the analysis suggest that the 'hedonic level of affect of leisure shopping' is contributing to overall happiness and the 'hedonic level of affect of the OSE' isnot significantly contributing to overall happiness. Furthermore, the results suggest that both the 'hedonic level of affect of leisure shopping' and the 'hedonic level of affect of the OSE' are contributing to the ABS. Moreover, the results suggest that the 'hedonic level of affect of leisure shopping' increases life satisfaction of older consumers but decreases life satisfaction of younger consumers. Besides, the 'hedonic level of affect of the OSE' doesnot significantly affect life satisfaction.

Table 2: The effects of the hedonic levels of affect on overall happiness and the ABS.

VARIABLES	Overall Happiness (1)	Overall Happiness (2)	Overall Happiness (3)	ABS (4)
Hedonic Level of Affect of Leisure Shopping	-0.600*** (0.216)		-0.626** (0.309)	-0.511* (0.295)
Hedonic Level of Affect of the OSE		-0.116 (0.219)	0.0154 (0.223)	-0.398* (0.231)
Personal Traits	Yes	Yes	Yes	Yes
Shopping Behaviour Traits	Yes	Yes	Yes	Yes
Observations	127	111	102	102
Pseudo R2	0.136	0.145	0.185	0.185

The 'hedonic level of affect of leisure shopping' is the sole explanatory variable of overall happiness in the first model. 'Hedonic level of affect of leisure shopping' is significantly negatively associated with overall happiness, at a 1% significance level. This finding suggests that the more a respondent disagrees with the leisure shopping statements (resulting in a higher value for 'hedonic level of affect of leisure shopping'), the lower overall happiness is. Leisure shopping as a leisure activity is, in isolation, contributing to overall happiness. The correlation table confirms a positive correlation of overall happiness and the 'hedonic level of affect of leisure shopping'. The correlation of -0.0523, though small, suggest that the more a respondent disagrees with a (positive) statement about leisure shopping, the lower his/her overall happiness is (see *Appendix: Correlations*). The magnitude of the contribution gives a more detailed view on the association between the 'hedonic level of affect of leisure shopping' and overall happiness (see *Appendix: Margins OPM*). The margins table suggests that one additional unit of agreement, so for example answering 'agree' in stead of 'neither agree nor disagree' on all statements, significantly increases the

probability of having an overall happiness level of 8 on average with 18 percentpoint, ceteris paribus, significant at a 1% significance level. Moreover, one additional unit of agreement significantly decreases the probability of having an overall happiness level of 7, 6, or 5, respectively, on average with 8.2, 3.2, and 3.6 percentpoint, significant at a 5% significance. One additional unit of agreement does not significantly increase the probability of having an overall happiness level of 9. Consider that the mean overall happiness is 7.29, this results suggests that leisure shopping increases the probability of having an above average overall happiness, vice versa. H_1 is supported based on this results.

The propensity score matching of model 1 uses the NNM-method. The matching has a mean bias of 17.2. The score is above the rule of thumb of 10.0 and, thus, indicates that there is evidence of potential bias in estimated treatment effects.

The 'hedonic level of affect of the OSE' is the sole explanatory variable of overall happiness in the second model. 'Hedonic level of affect of the OSE' is insignificantly negatively associated with overall happiness, at a 10% significance level. This finding suggests that the OSE has no significant effect on overall happiness. A more detailed view on the results, split per happiness level, confirms that the OSE has no significant effect on any level of overall happiness. H_2 isnot supported based on this result.

Model 2 uses the KM-method for propensity score matching. The mean bias of the KM is 9.5, though some variables have a KM-score above 10. These results indicate there is some evidence of potential bias in estimated treatment effects.

Both the 'hedonic level of affect of leisure shopping' and 'hedonic level of affect of the OSE' are the two explanatory variables in the third model. In this model, 'hedonic level of affect of leisure shopping' is significantly negatively associated with overall happiness at a 5% significance level. Again, an additional unit of agreement with leisure shopping increases the probability of having an overall happiness level of 8, on average, with 18.0 percentpoint, and decreases the probability of having a lower level of overall happiness, all significant at a 5% significance level. Furthermore, the OSE is not significantly affecting overall happiness.

The KM-method is used for propensity score matching in model 3. The mean bias of the KM is 17.2. The KM-score suggests there is evidence of potential bias in estimated treatment effects.

The fourth model uses the Affect Balance Scale as dependent variable. This model probably gives the best comparable results for both levels of hedonic affect, though the results are at the limit of what is scientific justifiable. Both the 'hedonic level of affect of leisure shopping' and 'hedonic level of affect of the OSE' are inserted as explanatory variables. In this model both hedonic levels of affect are significantly negatively associated with overall happiness, at a 10% significance level, indicating that increased disagreement with the hedonic statements decreases overall happiness. Nonetheless, one additional unit of 'hedonic level of affect of leisure shopping' increases the probability of having an Affect Balance Scale score of 4 with 8.4 percentpoint and a score of 5 with 7.6 percentpoint, on average, significant at 10%. One additional unit of 'hedonic level of affect of the online shopping experience' increases the probability of having an Affect Balance Scale score of 4 with 6.5 percentpoint, on average, significant at 10%, but does not significantly increase the probability to have a score of 5. Thus, the impact of leisure shopping on the ABS is stronger compared to the OSE. H_3 is supported based on this results.

The propensity score matching of model 4 uses the KM-method. The mean bias of the KM-estimate is 17.7 and, thus, indicates that there is evidence of potential bias in estimated treatment effects.

The fifth model is an OLS-regression using life satisfaction as dependent variable. The model includes the interaction effect of the 'hedonic level of affect of leisure shopping' with age. The model suggests that age is a moderator of the effect of 'hedonic level of affect of leisure shopping': 0.694 – 0.0184*Age. Thus, more agreement with leisure shopping recedes life satisfaction but this effect decreases with age till the age of 37. From 38 years unwards, leisure shopping improves life satisfaction, significant at 5%. The average VIF-score of this model is 3.41, though the VIF-score of the interaction is 13.04. A VIF-score above the threshold value of 10 indicates there is reason for concern of multi-collinearity.

The sixth model is an OLS-regression using life satisfaction as dependent variable, too. The model includes the interaction effect of the 'hedonic level of affect of the OSE' with age. In this model, the explanatory variable Hedonic Level of Affect of the OSE and the interaction variable are not significant at a 10% significance level. Thus, the OSE is not affecting life satifaction and age has no moderating role in this.

The model has an average VIF-score of 3.68 but the VIF-scores of Age and of Hedonic Level of Affect of the OSE are, respectivily, 10.03 and 14.81. These two individual VIF-scores imply there is a concern of multi-collinearity in model 6.

Table 3: The (interaction) effects of the hedonic levels of affect and age on life satisfaction.

VARIABLES	Life Satisfaction (5)	Life Satisfaction (6)
Hedonic Level of Affect of Leisure Shopping	0.694**	-0.0791
	(0.339)	(0.319)
Hedonic Level of Affect of the OSE	-0.0183	0.297
	(0.237)	(0.409)
Age	0.578*	0.252
	(0.293)	(0.255)
Leisure Shopping*Age	-0.0184**	
Interaction	(0.00815)	
The OSE*Age		-0.00721
Interaction		(0.00594)
Materialism	-0.00506	0.0161
	(0.211)	(0.226)
Personal Traits	Yes	Yes
Shopping Behaviour Traits	No	No
Constant	5.320***	6.272***
	(1.279)	(1.148)
Observations	102	102
R-squared	0.190	0.148

Discussion

The results suggest that leisure shopping can contribute to happiness. This statement holds for two different concepts of happiness, namely overall happiness and the Affect Balance Scale. In models one and three the 'hedonic level of affect of leisure shopping' significantly increases the probability to end up in the overall happiness level of 8 and decreases the probability of ending up in a lower overall happiness level. In model four 'the hedonic level of affect of leisure shopping' significantly increases the probability to have an Affect Balance Scale score of 4. Based on these findings H_1 is accepted. Furthermore, models two and three suggest that the 'hedonic level of affect of the OSE', does not significantly contribute affect overall happiness. Therefore, H_2 is not accepted. Moreover, model four indicates that the 'hedonic level of affect of the OSE' is significantly increasing the probability to have an Affect Balance Scale score of four, though to a lesser extent than its leisure shopping counterpart. Based on this result H_3 is accepted. The OLS-regression states that the 'hedonic level of affect of leisure shopping' does not contribute to life satisfaction, till a certain turning point in age. Actually, more leisure shopping decreases life satisfaction for respondents upto the age of 37. From the age of 38, leisure shopping improves life satisfaction and this effect increases for older respondents. This statement only holds for leisure shopping and does not hold for the OSE. The 'hedonic level of affect of the OSE' does not significantly affect life satisfaction, nor does age have a significant moderating role. The findings on age are (partly) in line with a study of George, Okun, & Landerman (1985) that concluded that age is a significant moderator of leisure activities, though the moderating effect did not differ across age groups, but contradicts a Croatian study that found that 'going shopping', as part of family and home leisure activities, always contributes to SWB in all age groups (Brajsa-Zganec, Merkas, & Sverko, 2011).

The findings about leisure shopping are in line with former literature about leisure and happiness. Most literature concluded that leisure activities contribute to happiness and this research can be added to this list. In the occasions that shopping for clothes is seen as a leisure activity, so leisure shopping, the leisure activity increases happiness. However, some facts must be taken in consideration. Were in former literature the social aspect of leisure activities is seen as the main driver of happiness increase, in this research it plays a minor role. Only 10% of the respondents stated that they 'shop in physical stores to socialize with close relatives or others'. There is a correlation of

0.2470 between 'hedonic level of affect of leisure shopping' and 'social shoppers' (*see Appendix: Correlations*), meaning that the more a respondent likes leisure shopping and being a social shopper goes hand in hand. Just one respondent indicated that he/she 'shops in an online shopping environment to socialize with close relatives or others'. This result is one of the explanations of no significant contribution of 'the hedonic level of affect of the OSE' to happiness. Also, Stanca (2010) concluded that age is expected to decrease the level of happiness significantly, but this study concludes the opposite.

This study accepts its first and third hypothesis and rejects its second hypothesis. This makes that the answer to the research question, *To what extent does leisure shopping affect happiness compared to the online shopping experience?'*, is that leisure shopping positively affects happiness and the OSE does not affect happiness, when it is measured as overall happiness. In the case that happiness is measured using the ABS, leisure shopping affects happiness more strongly than the OSE. The probability to have an ABS-score of 4 is 1.9 percent point higher for leisure shopping compared to the OSE. Concerning life satisfaction, leisure shopping affects happiness different because leisure shopping decreases life satisfaction until 37 years old and increases life satisfaction after the age of 38. The OSE does not affect life satisfaction.

Managerial Implications

The results of this research are paramount to (major) retail business, especially with an interest in bricks-and-mortar stores. Some retailers are struggling with the shift to the online shopping environment but this results suggest that there are opportunities to stop the exodus of bricks-and-mortar stores. Consumers can be made happier in the bricks-and-mortar stores compared to the online shopping environment. However, the consumer is probably unaware of this fact and retailers take this ignorance for granted. Withal, retailers should take advantage of the their happiness increasing bricks-and-mortar stores. The stores should be upgraded, made more attractive and the retailers must emphasize that shopping in their stores is a fulfilling leisure activity including all the benefits leisure activities have.

The results are of more importance for retailers with an older target group (>38 years). The study shows that older consumers benefit more from leisure shopping, in terms of happiness, compared to their younger counterparts. Retailers targeting older

consumers can enhance their leisure shopping experience and emphasize their pleasant and happiness increasing bricks-and-mortar stores through advertisement.

Limitations and Future Research

This study is subject to a number of limitations. The study focusses on the association of the 'hedonic level of affect of leisure shopping and the OSE' and happiness in the form of 'overall happiness', the Affect Balance Scale and 'life satisfaction'. It does not take the potential utilitarian value in to account. This utilitarian value can affect happiness, too (Tomer, 2011). Moreover, the sample size of the data is relatively small. Thereby, the data is cross-sectional making it impossible to control for respondent's fixed effects. Furthermore, the results of the Propensity Score Matching suggest that there might be a potential bias in the treatment effect, since the scores are not under the 10 bias rule of thumb. Furthermore, a potential selection bias cannot be excluded. Lastly, the VIF-scores indicate that there is a concern of multi-collinearity in model 5 and 6. Thus, the results of this research should be interpreted with caution.

Future research should use a larger sample size with more uniform personal and shopping behaviour traits. This can tackle the potential bias in the treatment effect. This research can also incorporate statements about the utilitarian affect of leisure shopping and the OSE to test the association between happiness and utilitarian value. Idealistic, the research is conducted in a natural setting rather than distributing the survey via social media and e-mail, as done in this study.

This research focusses primary on the sign and the magnitude of the association between the 'hedonic levels of affect of leisure shopping and the OSE' and happiness. Yet, it is unclear what triggers the association. For managerial implications it could be interesting to investigate how leisure shopping increases happiness to a more detailed extent. Former literature and (to some extent) the results of this study suggest social interaction as moderator. An extensive future study can investigate the moderator role of the shopping behaviour traits and maybe use other traits like the Big Five personality traits, as well. Furthermore, the retail business might be interested to know how happiness among the customers could be increased. Future research could explore to what extent for example increased social interaction (more salespeople) or enhanced shopping enjoyment ('adventurous' shopping malls, shopping entertainment) increases happiness. Lastly, the recommendations for future research can be applied

to the online shopping environment, too, to investigate how happiness due to the online shopping experience can be triggered and/or improved.

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Appendix

Descriptive Statistics

	Mean	SD	Minimum	Maximum	*N*
Overall Happiness	7.26	1.18	1	9	144
Affect Balance Score	2.46	1.85	-5	5	144
Life Satisfaction	7.60	1.13	0	10	143
Hedonic Level of Affect of Leisure Shopping	2.79	0.62	1	5	134
Hedonic Level of Affect of the Online Shopping Experience	3.08	0.57	1	5	117
Frequency of Leisure Shopping	0.49	0.50	0	1	145
Frequency of the Online Shopping Experience	0.48	0.50	0	1	145
Male	0.47	0.50	0	1	144
Age	39.69	15.19	15	66	144
24 – 41	0.23	0.42	0	1	144
42 – 53	0.28	0.45	0	1	144
> 53	0.22	0.42	0	1	144
Yearly Total Income	4.40	2.30	1	7	141
8,000 – 16,000 euros	0.13	0.34	0	1	141
16,000 – 24,000 euros	0.11	0.31	0	1	141
24,000 – 36,000 euros	0.06	0.23	0	1	141
36,000 – 48,000 euros	0.09	0.28	0	1	141
48,000 – 60,000 euros	0.18	0.38	0	1	141
60,000 euros or more	0.28	0.45	0	1	141
Financial Situation Satisfaction	7.28	1.89	0	10	143
Marital Status					
Never been married or never had a cohabitation agreement	0.36	0.48	0	1	144
Separated	0.03	0.18	0	1	144
Divorced	0.02	0.14	0	1	144
Widow or widower	0.01	0.08	0	1	144
Health					
Good	0.48	0.50	0	1	144
Fair	0.08	0.28	0	1	144
Bad	0.01	0.08	0	1	144
Materialism	3.80	0.79	1	5	145
Adventure Leisure	0.08	0.27	0	1	145
Value Leisure	0.49	0.50	0	1	145
Role Leisure	0.14	0.35	0	1	145
Idea Leisure	0.13	0.34	0	1	145
Social Leisure	0.10	0.30	0	1	145
Gratification Leisure	0.03	0.18	0	1	145
Acquire Leisure	0.80	0.40	0	1	145
Adventure Online	0.06	0.24	0	1	145
Value Online	0.58	0.50	0	1	145
Role Online	0.06	0.24	0	1	145
Idea Online	0.17	0.38	0	1	145
Social Online	0.01	0.08	0	1	145
Gratification Online	0.04	0.20	0	1	145
Acquire Online	0.63	0.48	0	1	145
Leisure Shopping*Age	111.04	50.28	15	330	133
Online Shopping Experience*Age	119.37	50.50	15	330	116
Leisure Shopping*Yearly Total Income	12.27	7.15	1	35	130
Online Shopping Experience*Yearly Total Income	13.51	7.23	1	35	113

Cronbach's Alpha

Cronbach's alpha of 'the hedonic level of affect of leisure shopping':

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem correlation	alpha
leisure_1	135	+	0.7365	0.6834	0.3720	0.8924
leisure_2	136	+	0.7770	0.7303	0.3676	0.8906
leisure_3	134	+	0.7670	0.7194	0.3687	0.8910
leisure_4	135	+	0.6486	0.5824	0.3816	0.8962
leisure_5	136	+	0.6618	0.5973	0.3802	0.8957
leisure_6	135	+	0.5275	0.4471	0.3945	0.9012
leisure_7	135	+	0.3456	0.2504	0.4141	0.9082
leisure_8	134	+	0.8095	0.7690	0.3642	0.8891
leisure_9	136	+	0.6321	0.5636	0.3832	0.8969
leisure_10	134	+	0.6474	0.5817	0.3816	0.8963
leisure_11	133	+	0.3928	0.3012	0.4086	0.9063
leisure_12	135	+	0.7775	0.7315	0.3678	0.8906
leisure_13	135	+	0.7313	0.6777	0.3727	0.8927
leisure_14	135	+	0.6185	0.5488	0.3849	0.8975
leisure_15	135	+	0.6721	0.6095	0.3791	0.8953
Test scale					0.3814	0.9024

Cronbach's alpha of 'the hedonic level of affect of the OSE':

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem correlation	alpha
online_1	117	+	0.7789	0.7245	0.2456	0.8201
online_2	115	+	0.7316	0.6674	0.2504	0.8239
online_3	118	+	0.6856	0.5703	0.2578	0.8294
online_4	117	+	0.5899	0.5028	0.2628	0.8331
online_5	117	+	0.7085	0.6406	0.2521	0.8252
online_6	117	+	0.3303	0.2180	0.2871	0.8493
online_7	117	-	0.0944	-0.0252	0.3090	0.8623
online_8	117	+	0.7888	0.7364	0.2446	0.8193
online_9	116	+	0.6543	0.5776	0.2572	0.8290
online_10	117	+	0.4484	0.3456	0.2761	0.8423
online_11	117	-	0.2789	0.1638	0.2921	0.8524
online_12	117	+	0.7065	0.6386	0.2524	0.8254
online_13	117	+	0.5474	0.4553	0.2669	0.8360
online_14	117	+	0.4494	0.3464	0.2760	0.8422
online_15	117	+	0.6674	0.5925	0.2561	0.8282
Test scale					0.2658	0.8445

Cronbach's alpha of Materialism:

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem correlation	alpha
Iwouldbuya~u	145	+	0.8607	0.7396	0.5555	0.7894
Clothingis~e	145	+	0.9018	0.8115	0.5096	0.7571
Iwouldbeha~f	145	+	0.7763	0.6014	0.6495	0.8476
Ipaymuchat~u	143	+	0.7856	0.6180	0.6372	0.8405
Test scale					0.5881	0.8510

Ordered Probit Model

VARIABLES	Overall Happiness (1)	Overall Happiness (2)	Overall Happiness (3)
Hedonic Level of Affect of Leisure Shopping	-0.600*** (0.216)		-0.626** (0.309)
Frequency of Leisure Shopping	-0.317 (0.247)		0.0338 (0.310)
Hedonic Level of Affect of the OSE		-0.116 (0.219)	0.0154 (0.223)
Frequency of the Online Shopping Experience		-0.0950 (0.328)	-0.0666 (0.391)
Male	0.444 (0.326)	0.453 (0.332)	0.491 (0.432)
Age			
24 – 41	0.150 (0.613)	-0.465 (0.440)	-0.500 (0.667)
42 – 53	0.672 (0.716)	-0.315 (0.493)	0.0335 (0.775)
> 53	0.335 (0.748)	-0.591 (0.528)	-0.582 (0.785)
Yearly Total Income			
8,000 – 16,000 euros	0.833* (0.489)	1.478*** (0.572)	1.815** (0.734)
16,000 – 24,000 euros	-0.0498 (0.479)	0.731 (0.483)	0.840 (0.591)
24,000 – 36,000 euros	0.955 (0.607)	1.180** (0.558)	2.038*** (0.707)
36,000 – 48,000 euros	0.427 (0.677)	1.535** (0.743)	1.518* (0.852)
48,000 – 60,000 euros	0.332 (0.636)	1.038 (0.701)	1.444* (0.784)
60,000 euros or more	0.898 (0.764)	1.627* (0.859)	2.167** (0.975)
Financial Situation Satisfaction	0.0779 (0.0825)	0.0953 (0.0901)	0.0560 (0.110)
Marital Status			
Never been married or never had a cohabitation agreement	0.800 (0.736)	0.217 (0.605)	0.568 (0.764)
Separated	1.136** (0.541)	0.688 (0.593)	1.448* (0.744)
Divorced	2.347*** (0.588)	4.884*** (0.648)	6.119*** (0.815)
Widow or widower	2.591** (1.070)	6.373*** (0.964)	6.546*** (1.138)
Health			
Good	-0.705** (0.276)	-0.548* (0.300)	-0.605* (0.336)
Fair	-1.585*** (0.435)	-1.430*** (0.452)	-1.467*** (0.537)
Bad	-3.100*** (0.741)	-5.402*** (0.901)	-6.794*** (1.134)
Materialism	-0.127 (0.188)	-0.0344 (0.196)	-0.0651 (0.227)
Shopping Behaviour Traits	Yes	Yes	Yes
Observations	127	111	102
Pseudo R2	0.136	0.145	0.185

VARIABLES	Affect Balance Score (4)
Hedonic Level of Affect of Leisure Shopping	-0.511*
	(0.295)
Frequency of Leisure Shopping	0.402
	(0.314)
Hedonic Level of Affect of the OSE	-0.398*
	(0.231)
Frequency of the Online Shopping Experience	-0.886**
	(0.388)
Male	0.0732
	(0.327)
Age	
24 – 41	-0.274
	(0.531)
42 – 53	0.0496
	(0.653)
> 53	-0.681
	(0.773)
Yearly Total Income	
8,000 – 16,000 euros	0.661
	(0.463)
16,000 – 24,000 euros	0.343
	(0.493)
24,000 – 36,000 euros	0.925
	(0.649)
36,000 – 48,000 euros	1.530**
	(0.683)
48,000 – 60,000 euros	0.871
	(0.552)
60,000 euros or more	1.051
	(0.660)
Financial Situation Satisfaction	0.0641
	(0.0904)
Marital Status	
Never been married or never had a cohabitation agreement	-0.0522
	(0.590)
Separated	0.507
	(0.683)
Divorced	-0.686
	(0.650)
Widow or widower	1.488
	(0.933)
Health	
Good	-0.252
	(0.265)
Fair	-0.0306
	(0.637)
Bad	-0.652
	(1.002)
Materialism	-0.205
	(0.172)
Shopping Behaviour Traits	Yes
	(0.771)
Observations	102
Pseudo R2	0.110

Margins OPM

Model 1:

	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf. Interval]	
Hedonic_Affect_Leisure _predict						
1	.029876	.0179269	1.67	0.096	-.00526	.065012
2	.0071052	.0070768	1.00	0.315	-.0067651	.0209755
3	.0364707	.0199219	1.83	0.067	-.0025754	.0755169
4	.0316735	.0147872	2.14	0.032	.0026911	.0606559
5	.0821934	.0296652	2.77	0.006	.0240507	.1403361
6	-.1765726	.0632516	-2.79	0.005	-.3005435	-.0526017
7	-.0107463	.0087696	-1.23	0.220	-.0279343	.0064417

Model 2:

	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf. Interval]	
Hedonic_Affect_Online _predict						
1	.0063396	.0121879	0.52	0.603	-.0175483	.0302275
2	.0029771	.0063463	0.47	0.639	-.0094615	.0154157
3	.0049693	.0098644	0.50	0.614	-.0143645	.0243031
4	.0074595	.0139856	0.53	0.594	-.0199517	.0348707
5	.0149191	.0280295	0.53	0.595	-.0400178	.069856
6	-.0366646	.0692449	-0.53	0.596	-.1723822	.099053

Model 3:

	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf. Interval]	
Hedonic_Affect_Leisure _predict						
1	.0335476	.0233916	1.43	0.152	-.0122991	.0793944
2	.0085633	.0087337	0.98	0.327	-.0085543	.025681
3	.0299019	.0203099	1.47	0.141	-.0099047	.0697085
4	.0325247	.0192593	1.69	0.091	-.0052228	.0702721
5	.075297	.0357156	2.11	0.035	.0052956	.1452984
6	-.1798346	.0861742	-2.09	0.037	-.3487329	-.0109363
Hedonic_Affect_Online _predict						
1	-.0008248	.0120466	-0.07	0.945	-.0244357	.0227861
2	-.0002105	.0030369	-0.07	0.945	-.0061627	.0057416
3	-.0007351	.0106896	-0.07	0.945	-.0216864	.0202161
4	-.0007996	.0115872	-0.07	0.945	-.0235101	.0219109
5	-.0018512	.0267977	-0.07	0.945	-.0543737	.0506714
6	.0044213	.0641363	0.07	0.945	-.1212836	.1301262

Model 4:

	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf. Interval]	
Hedonic_Affect_Leisure _predict						
1	.0119464	.0123054	0.97	0.332	-.0121718	.0360647
2	.0090338	.0094902	0.95	0.341	-.0095666	.0276343
3	.0291617	.019755	1.48	0.140	-.0095574	.0678808
4	.021523	.0149835	1.44	0.151	-.0078441	.0508902
5	.0582598	.0344569	1.69	0.091	-.0092744	.1257941
6	.0242734	.0163836	1.48	0.138	-.0078378	.0563846
7	-.0048619	.0132243	-0.37	0.713	-.0307811	.0210573
8	-.0838032	.049946	-1.68	0.093	-.1816955	.014089
9	-.065533	.0384038	-1.71	0.088	-.140803	.0097369
Hedonic_Affect_Online _predict						
1	.0093001	.0094762	0.98	0.326	-.0092729	.0278732
2	.0070327	.0069543	1.01	0.312	-.0065974	.0206628
3	.0227019	.017625	1.29	0.198	-.0118425	.0572463
4	.0167553	.0127503	1.31	0.189	-.0082347	.0417454
5	.0453544	.0267897	1.69	0.090	-.0071524	.0978613
6	.0188965	.0116157	1.63	0.104	-.0038699	.0416629
7	-.0037849	.0102345	-0.37	0.712	-.0238441	.0162743
8	-.0652396	.038626	-1.69	0.091	-.1409452	.010466
9	-.0510165	.032256	-1.58	0.114	-.1142372	.0122041

Propensity Score Matching
Model 1:

Variable	Mean Treated	Control	%bias	t-test t	p>|t|	V(T)/ V(C)
Cur_Overall_Happ	7.3049	7.1756	11.2	0.74	0.458	1.06
dum_freq_leis	.47561	.48537	-1.9	-0.12	0.901	.
Appl_Leis_Adventure	.03659	.00732	9.3	1.28	0.203	.
Appl_Leis_Value	.53659	.53171	1.0	0.06	0.950	.
Appl_Leis_Role	.09756	.20244	-27.0	-1.89	0.061	.
Appl_Leis_Idea	.08537	.02195	18.3	1.81	0.072	.
Appl_Leis_Social	.07317	.09024	-5.6	-0.40	0.692	.
Appl_Leis_Gratification	0	0	.	.	.	.
Appl_Leis_Acquire	.78049	.97561	-51.3	-3.98	0.000	.
Gender	.47561	.56098	-16.9	-1.09	0.277	.
2.age_group	.21951	.03659	41.6	3.62	0.000	.
3.age_group	.26829	.36098	-21.3	-1.28	0.204	.
4.age_group	.19512	.14146	12.2	0.92	0.362	.
Financial_Situation_Satisfaction	7.4024	6.4293	50.6	3.34	0.001	0.95
2.Total_Income	.18293	.1439	12.9	0.67	0.502	.
3.Total_Income	.12195	.1	7.0	0.45	0.657	.
4.Total_Income	0	0	.	.	.	.
5.Total_Income	.06098	.05122	3.3	0.27	0.788	.
6.Total_Income	.17073	.04634	30.9	2.60	0.010	.
7.Total_Income	.29268	.32927	-7.7	-0.50	0.615	.
2.Health	.46341	.54146	-15.5	-1.00	0.321	.
3.Health	.12195	.10732	5.5	0.29	0.770	.
4.Health	0	0	.	.	.	.
2.Marital_Status	.45122	.46098	-2.1	-0.12	0.901	.
3.Marital_Status	0	0	.	.	.	.
4.Marital_Status	0	0	.	.	.	.
5.Marital_Status	0	0	.	.	.	.
Materialism	3.9106	3.7177	24.7	1.62	0.108	0.65

* if variance ratio outside [0.64; 1.55]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
0.319	72.49	0.000	17.2	12.6	110.7*	19.61*	0

* if B>25%, R outside [0.5; 2]

Model 2:

| Variable | Mean | | | t-test | | V(T)/ |
	Treated	Control	%bias	t	p>|t|	V(C)
Cur_Overall_Happ	7.381	7.5486	-14.5	-0.89	0.377	2.53*
Hedonic_Affect_Online	3	2.9537	8.6	0.49	0.623	0.97
dum_freq_onl	.61905	.6694	-10.4	-0.48	0.635	.
Appl_Onl_Adventure	.02381	.01633	2.8	0.24	0.810	.
Appl_Onl_Value	.7381	.77999	-9.5	-0.44	0.658	.
Appl_Onl_Role	.07143	.08004	-3.0	-0.15	0.883	.
Appl_Onl_Idea	.16667	.23572	-17.0	-0.78	0.436	.
Appl_Onl_Social	0	0	.	.	.	.
Appl_Onl_Gratification	.02381	.02378	0.0	0.00	0.999	.
Appl_Onl_Acquire	.7619	.73952	5.0	0.23	0.815	.
Gender	.57143	.63127	-11.8	-0.55	0.581	.
2.age_group	.14286	.05363	19.4	1.37	0.174	.
3.age_group	.35714	.39697	-9.2	-0.37	0.711	.
4.age_group	.2381	.28716	-12.3	-0.51	0.614	.
Financial_Situation_Satisfaction	7.4524	7.3219	7.0	0.34	0.733	0.93
2.Total_Income	.07143	.1183	-15.2	-0.73	0.470	.
3.Total_Income	.11905	.08106	12.4	0.57	0.567	.
4.Total_Income	0	0	.	.	.	.
5.Total_Income	.14286	.12925	4.1	0.18	0.858	.
6.Total_Income	.16667	.26086	-22.5	-1.05	0.298	.
7.Total_Income	.30952	.27348	8.2	0.36	0.720	.
2.Health	.61905	.61673	0.5	0.02	0.983	.
3.Health	0	0	.	.	.	.
4.Health	0	0	.	.	.	.
2.Marital_Status	.2619	.26223	-0.1	-0.00	0.997	.
3.Marital_Status	0	0	.	.	.	.
4.Marital_Status	.02381	.03041	-4.0	-0.18	0.854	.
5.Marital_Status	0	0	.	.	.	.
Materialism	3.7738	3.6078	20.4	1.00	0.321	0.64

* if variance ratio outside [0.54; 1.86]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
0.064	7.49	0.998	9.5	9.2	59.6*	2.21*	25

* if B>25%, R outside [0.5; 2]

Model 3:

Variable	Mean Treated	Mean Control	%bias	t-test t	p>|t|	V(T)/ V(C)
Cur_Overall_Happ	7.4706	7.6992	-19.4	-0.66	0.512	2.99*
Hedonic_Affect_Online	2.902	2.9146	-2.3	-0.08	0.938	0.71
dum_freq_leis	.70588	.66917	7.4	0.22	0.824	.
dum_freq_onl	.70588	.76023	-11.2	-0.35	0.730	.
Appl_Leis_Adventure	0	0	0.0	.	.	.
Appl_Leis_Value	.58824	.23955	69.5	2.14	0.040	.
Appl_Leis_Role	.17647	.15179	6.3	0.19	0.852	.
Appl_Leis_Idea	.11765	0	30.6	1.46	0.154	.
Appl_Leis_Social	.11765	.14232	-7.7	-0.21	0.837	.
Appl_Leis_Gratification	0	0	.	.	.	.
Appl_Leis_Acquire	.88235	.97364	-25.7	-1.01	0.318	.
Appl_Onl_Adventure	0	0	0.0	.	.	.
Appl_Onl_Value	.70588	.7946	-19.7	-0.58	0.564	.
Appl_Onl_Role	.11765	0	39.9	1.46	0.154	.
Appl_Onl_Idea	.17647	.20089	-6.4	-0.18	0.861	.
Appl_Onl_Social	0	0	.	.	.	.
Appl_Onl_Gratification	.05882	0	30.7	1.00	0.325	.
Appl_Onl_Acquire	.88235	.86572	3.7	0.14	0.888	.
Gender	.64706	.61742	5.8	0.17	0.863	.
2.age_group	.23529	.13185	22.2	0.76	0.451	.
3.age_group	.17647	.12216	12.7	0.43	0.668	.
4.age_group	.23529	.38527	-37.4	-0.93	0.360	.
Financial_Situation_Satisfaction	6.8824	7.2405	-18.7	-0.70	0.492	1.96
2.Total_Income	.11765	.00778	35.2	1.32	0.198	.
3.Total_Income	.05882	0	18.8	1.00	0.325	.
4.Total_Income	0	0	.	.	.	.
5.Total_Income	.05882	.08324	-7.4	-0.27	0.790	.
6.Total_Income	.17647	.30203	-30.3	-0.84	0.406	.
7.Total_Income	.29412	.254	8.9	0.25	0.801	.
2.Health	.58824	.66726	-15.6	-0.46	0.646	.
3.Health	0	0	.	.	.	.
4.Health	0	0	.	.	.	.
2.Marital_Status	.35294	.36072	-1.7	-0.05	0.964	.
3.Marital_Status	0	0	.	.	.	.
4.Marital_Status	0	0	.	.	.	.
5.Marital_Status	0	0	.	.	.	.
Materialism	3.8235	3.7961	3.4	0.11	0.915	1.16

* if variance ratio outside [0.36; 2.76]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
1.000	37.52	.	17.2	12.7	8.0e+13*	5.56*	25

* if B>25%, R outside [0.5; 2]

Model 4:

Variable	Mean Treated	Mean Control	%bias	t-test t	t-test p>|t|	V(T)/ V(C)
Affect_Balance_Score	3.1875	3.1709	1.0	0.03	0.976	0.68
Hedonic_Affect_Online	2.9028	2.9274	-4.4	-0.13	0.899	0.19*
dum_freq_leis	.6875	.5774	22.4	0.63	0.534	.
dum_freq_onl	.75	.75515	-1.1	-0.03	0.974	.
Appl_Leis_Adventure	0	0	0.0	.	.	.
Appl_Leis_Value	.5	.4226	15.4	0.43	0.673	.
Appl_Leis_Role	.1875	0	49.0	1.86	0.073	.
Appl_Leis_Idea	.125	0	32.3	1.46	0.154	.
Appl_Leis_Social	.125	0	42.0	1.46	0.154	.
Appl_Leis_Gratification	0	0	.	.	.	.
Appl_Leis_Acquire	.875	1	-35.2	-1.46	0.154	.
Appl_Onl_Adventure	0	0	0.0	.	.	.
Appl_Onl_Value	.6875	.4524	51.6	1.34	0.191	.
Appl_Onl_Role	.125	0	42.0	1.46	0.154	.
Appl_Onl_Idea	.0625	.18235	-32.8	-1.02	0.317	.
Appl_Onl_Social	0	0	.	.	.	.
Appl_Onl_Gratification	0	0	0.0	.	.	.
Appl_Onl_Acquire	.8125	.81765	-1.2	-0.04	0.971	.
Gender	.5625	.51241	9.9	0.28	0.785	.
2.age_group	.1875	.1875	0.0	0.00	1.000	.
3.age_group	.3125	.24025	16.6	0.44	0.660	.
4.age_group	.25	.30009	-12.9	-0.31	0.760	.
Financial_Situation_Satisfaction	7.5	7.216	14.8	0.60	0.551	1.51
2.Total_Income	.0625	0	20.1	1.00	0.325	.
3.Total_Income	.0625	0	19.9	1.00	0.325	.
4.Total_Income	0	0	.	.	.	.
5.Total_Income	.1875	.18235	1.5	0.04	0.971	.
6.Total_Income	.1875	.11775	17.3	0.53	0.597	.
7.Total_Income	.3125	.42775	-25.6	-0.66	0.515	.
2.Health	.625	.63015	-1.0	-0.03	0.977	.
3.Health	0	0	.	.	.	.
4.Health	0	0	.	.	.	.
2.Marital_Status	.25	.27216	-4.7	-0.14	0.891	.
3.Marital_Status	0	0	.	.	.	.
4.Marital_Status	0	0	.	.	.	.
5.Marital_Status	0	0	.	.	.	.
Materialism	3.6406	3.9474	-37.8	-1.16	0.254	0.89

* if variance ratio outside [0.35; 2.86]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
1.000	25.90	.	17.7	15.4	9.5e+15*	7.61*	25

* if B>25%, R outside [0.5; 2]

OLS-regression

VARIABLES	Life Satisfaction (5)	Life Satisfaction (6)
Hedonic Level of Affect of Leisure Shopping	0.694**	-0.0791
	(0.339)	(0.319)
Hedonic Level of Affect of the OSE	-0.0183	0.297
	(0.237)	(0.409)
Age	0.578*	0.252
	(0.293)	(0.255)
Yearly Total Income	0.120	0.0986
	(0.0735)	(0.0704)
Leisure Shopping*Age	-0.0184**	
Interaction	(0.00815)	
The OSE*Age		-0.00721
Interaction		(0.00594)
Materialism	-0.00506	0.0161
	(0.211)	(0.226)
Male	0.332	0.351
	(0.214)	(0.220)
Financial Situation Satisfaction	0.119	0.110
	(0.0901)	(0.0931)
Marital Status	0.0229	0.0434
	(0.106)	(0.108)
Health	-0.370**	-0.404**
	(0.172)	(0.169)
Frequency of Leisure Shopping	0.251	0.247
	(0.246)	(0.252)
Frequency of the Online Shopping Experience	-0.223	-0.254
	(0.293)	(0.308)
Constant	5.320***	6.272***
	(1.279)	(1.148)
Observations	102	102
R-squared	0.190	0.148

VIF-scores

VIF-score model 5

Variable	VIF	1/VIF
int_leis_age	13.04	0.076694
age_group	8.72	0.114658
Hedonic_A~re	5.12	0.195146
Total_Income	2.99	0.334862
dum_freq_onl	1.61	0.622494
Hedonic_A~ne	1.60	0.624811
Financial_~n	1.53	0.654691
Marital_St~s	1.47	0.680281
dum_freq_l~s	1.32	0.755678
Materialism	1.27	0.786362
Gender	1.19	0.837003
Health	1.09	0.915956
Mean VIF	3.41	

VIF-score model 6

Variable	VIF	1/VIF
int_onl_age	14.81	0.067504
age_group	10.03	0.099746
Hedonic_A~ne	5.13	0.194970
Total_Income	3.15	0.317458
dum_freq_onl	1.62	0.617044
Financial_~n	1.52	0.657083
Marital_St~s	1.47	0.681575
Hedonic_A~re	1.45	0.688720
dum_freq_l~s	1.32	0.755666
Materialism	1.31	0.764302
Gender	1.25	0.802996
Health	1.08	0.922865
Mean VIF	3.68	

Correlations

Correlation of overall happiness and hedonic level of affect of leisure shopping:

```
              | Cur_Ov~p Hedon~re
--------------+------------------
  Cur_Overal~p|  1.0000
  Hedonic_A~re| -0.0523   1.0000
```

Correlation of hedonic level of affect of leisure shopping and social for leisure shopping

```
              | Hedon~re Appl_L~1
--------------+------------------
  Hedonic_A~re|  1.0000
  Appl_Leis_~1| -0.2470   1.0000
```

Questionnaire

Dear participant,

Welcome to the survey for my master thesis in Behavioural Economics. In this survey I will ask you some questions concerning your feelings and motivations with shopping of clothing in both a physical store and an online shopping environment. In this survey there are no right or wrong answers, so please state your true preference.

The survey consist of 76 questions or statements and it will take you about ten minutes to complete the questionnaire. The survey is completely anonymous and your responses will only be used for my own research.

Thank you in advance for your cooperation.

With kind regards,

Mark Littooij

Imagine a ladder. Suppose we say that the top of the ladder represents the best possible life for you and the bottom represents the worst possible life for you. Where on the ladder do you feel you personally stood within the last month ?

10. Best possible life for you
9.
8.
7.
6.
5.
4.
3.
2.
1.
0. Worst possible life for you

During the past few days (did you feel) …

	Yes	No
Very lonely or remote (*alleen of op afstand*) from other people?	○	○
Proud because someone complimented you on something you had done?	○	○
Did you feel so restless that you couldn't sit long in a chair?	○	○
Did you feel particularly excited or interested in something?	○	○
On top of the world?	○	○
Depressed or very unhappy?	○	○
Pleased about having accomplished something (*iets bereikt*)?	○	○
Upset because someone criticized you?	○	○
That things were going your way?	○	○
Bored?	○	○

Overall, how happy would you say you currently are?

Extremely happy	Happy	Moderately happy	Somewhat happy	Neither happy nor unhappy	Somewhat unhappy	Moderately unhappy	Unhappy	Extremely unhappy	I do not know

The following eighteen questions are about *leisure shopping*. *Leisure shopping* is browsing clothing stores in your leisure time. A clothing store is any physical clothing store where you can buy clothes, shoes, jewelry etc. The acquisition of clothes is part of leisure shopping, but is not a requirement. You should consider only *leisure shopping* for clothing.
(*Leisure shopping is het bezoeken van kledingwinkels in uw vrijetijd. Een kledingwinkel is iedere fysieke winkel waar kleding, schoenen, juwelen etc. worden verkocht. De aanschaf van kleding is onderdeel van leisure shopping, maar niet een vereiste. Het gaat uitsluitend om leisure shopping voor kleding*).
For this questions it does not matter whether you eventually bought any item.

How often do you shop as a leisure activity? Include all the occasions you went to a physical clothing shop:

Every day

Several days a week

Once a week

Several days a month

Once a month

Less than once a month

Never

On the days that you spend your time on leisure shopping, how much time did you spend on this per day, on average (in hours)?

[ ]

Please indicate to what extend you agree/disagree with the following statements.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Leisure shopping makes me feel good.	○	○	○	○	○
I do not have happy memories of leisure shopping.	○	○	○	○	○
I feel traditional shopping as a fulfilling leisure activity (*bevredigende vrijetijds activiteit*).	○	○	○	○	○
Shopping enjoyment is important to me when I buy clothes in a physical store.	○	○	○	○	○
I rather shop alone than with someone together.	○	○	○	○	○
After a day of leisure shopping I can feel satisfied for days.	○	○	○	○	○
I enjoy shopping in physical stores for its own sake, not just for the items that I may have purchased.	○	○	○	○	○
When I am leisure shopping with someone, I feel helpless.	○	○	○	○	○
I am always looking forward to go shopping in a physical store.	○	○	○	○	○
I am always looking forward to go shopping in a physical store.	○	○	○	○	○
I find leisure shopping monotonous (*eentonig*).	○	○	○	○	○
Leisure shopping is important to me.	○	○	○	○	○
Leisure shopping makes me feel lethargic (*apatisch*).	○	○	○	○	○
During leisure shopping I experience joy and elation (*blijdschap en opgetogenheid*).	○	○	○	○	○
I experience leisure shopping as a waste of money.	○	○	○	○	○
Leisure shopping makes me feel bored.	○	○	○	○	○

Please indicate whether one of the following is applicable (*van toepassing*) to your leisure shopping activities (more options are possible).

I shop in physical stores to acquire new clothes (*verkrijgen van nieuwe kleding*).

I shop in physical stores to socialize with close relatives or others.

I shop in physical stores to keep up with the trends.

When I am in a down mood, I go leisure shopping to make me feel better.

To me, leisure shopping is an adventure.

I enjoy leisure shopping for close relatives.

I shop in physical stores to take advantage of sales.

You now move to eighteen questions about *online shopping*. *Online shopping* is browsing through an online shopping environment in your leisure time. An online shopping environment is any online store where you can buy clothes, shoes, jewelry etc. The acquisition of clothes is part of online shopping, but is not a requirement. You should consider only *online shopping* for clothing.
(*Online shopping is het bezoeken van webwinkels in uw vrijetijd. Een webwinkel is iedere online winkel waar kleding, schoenen, juwelen etc. worden verkocht. De aanschaf van kleding is onderdeel van online shopping, maar niet een vereiste. Het gaat uitsluitend om online shopping voor kleding*).
For this questions it does not matter whether you eventually bought any item.

How often do you shop online for clothes? Include all the occasions you went to an online shopping environment:

Every day

Several days a week

Once a week

Several days a month

Once a month

Less than once a month

Never

On the days that you spent your time on online shopping for clothes, how much time did you spend on this per day, on average (in hours)?

[   ]

Please indicate to what extend you agree/disagree with the following statements.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
When I am shopping online with someone, I feel helpless.	○	○	○	○	○
Shopping enjoyment is important to me when I buy clothes online.	○	○	○	○	○
Online shopping is important to me.	○	○	○	○	○
During online shopping I experience joy and elation (*blijdschap en opgetogenheid*).	○	○	○	○	○
I experience online shopping as a waste of money.	○	○	○	○	○
Online shopping makes me feel lethargic (*apatisch*).	○	○	○	○	○
I enjoy shopping in an online environment for its own sake, not just for the items that I may have purchased.	○	○	○	○	○
I am always looking forward to go shopping in an online environment.	○	○	○	○	○
I do not have happy memories of online shopping.	○	○	○	○	○
I feel online shopping as a fulfilling leisure activity (*bevredigende vrijetijds activiteit*).	○	○	○	○	○
I find online shopping monotonous (*eentoning*).	○	○	○	○	○
Online shopping makes me feel bored.	○	○	○	○	○
Online shopping makes me feel good.	○	○	○	○	○
I rather shop alone than with someone together.	○	○	○	○	○
After a day of online shopping I can feel satisfied for days.	○	○	○	○	○

Please indicate whether one of the following statements is applicable (*van toepassing*) to your online shopping activities (more options are possible).

| I shop in an online environment to take advantage of sales. |
| When I am in a down mood, I go shopping online to make me feel better. |
| To acquire new clothes (*verkrijgen van nieuwe kleding*). |
| To me, online shopping is an adventure. |
| I enjoy online shopping for close relatives. |
| I shop in an online environment to keep up with the trends. |
| I shop in an online environment to socialize with close relatives or others. |

We now move to questions concerning the purchase of clothing. The next questions are about your attitude towards the purchase of clothing. Please indicate to what extend you agree/disagree with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
It is really true that money can buy happiness.	○	○	○	○	○
It is important to me to have really nice clothes.	○	○	○	○	○
I pay much attention to the luxury clothes other people wear.	○	○	○	○	○
I would be happier if I could afford to buy more clothes.	○	○	○	○	○
Clothing is more valuable to me if it has some snob appeal (*superieur aanzien*).	○	○	○	○	○
I would buy a garment (*kledingstuk*) just because it has status.	○	○	○	○	○

The next couple of questions are about your financial situation. To make a thoroughly comparison between people's shopping behaviour I need some financial details. I wish to emphasize that the questionnaire is completely anonymous and your personal details are used exclusively for research purposes and will not be made available to third parties.

How satisfied are you with your financial situation? 0 means that you are not at all satisfied with your financial situation, and 10 means that you are entirely satisfied.

10. Entirely satisfied with my financial situation

9.

8.

7.

6.

5.

4.

3.

2.

1.

0. Not at all satisfied with my financial situation.

Can you indicate, then, to what category your total income belonged in 2015 (including wages, pension, student grant or any other social benefit)? This concerns the total amount of income received over the whole year.

Less than 8,000 euros

8,000 – 16,000 euros

16,000 – 24,000 euros

24,000 – 36,000 euros

36,000 – 48,000 euros

48,000 – 60,000 euros

60,000 euros or more

How much money do you save or expect to save for clothing expenditures (*kleding uitgaven*) in one year in euros?

[   ]

About how much did you and your household spend on clothing in the past year (in euros)?

[   ]

The last six questions are about your personal traits. Please choose the option that describes you the best.

Gender:

Male	Female

What is your age (in years)?

[   ]

Regarding your occupation, which of these descriptions best describes your situation

Full-time paid work	Part-time paid work	Unemployed and actively looking for a job	Unemployed but not actively looking for a job	Permanently sick or disabled	Retired	Student

Regarding your marital status, which of these descriptions best describes your situation

Married or cohabitation agreement	Never been married or never had a cohabitation agreement	Separated	Divorced	Widow or widower

How is your health in general? Would you say it is ...

Very good	Good	Fair	Bad	Very bad

What is your highest completed educational level or which level are you attending now?

Primary school	Secondary school	Intermediate professional education (MBO)	Higher education (HBO or WO)	Never had any level of education

The questions in the questionnaire are based on questions used in previous questionnaires in happiness research. The first questions assess respondent's life satisfaction wihtin the last month using the self-anchoring ladder rating of life by Cantril (1965). The second question is ten smaller dichotomous questions to determine the respondent's Affect Balance Scale score (Bradburn & Caplovitz, 1965). The third question measures current overall happiness and is borrowed from the *Initial Investigation on the Results of Quality of Life Survey FY 2011* (Economic and Social Research Institute, 2012).

The next section of questions consists of eighteen questions that address *leisure shopping*. The first two questions measures how often the responder participates in a *leisure shopping* activity. These questions are based on the questions asked in the *Questionnaire Social Integration and Leisure* of the LISS panel (LISS Panel, 2016c). Statements 2 and 5 are based on the article by Neal, Sirgy, & Uysal (1999). Statements 3 and 13 are based on 'Memorial University of Newfoundland Scale of Happiness' (Kozma & Stones, 1980). Statement 4 is based on the article by Babin, Darden, & Griffin (1994). Statement 6 is based on 'The Depression-Happiness Scale' (McGreal & Joseph, 1993). Statement 8, 10, and 12 are based on the Oxford Happiness Questionnaire (Hills & Argyle, 2002). Statement 9 is borrowed from the article by Chen-Yu & Seock (2002). Statements 1, 7, 11, 14, and 15 I sort of made up myself. The last question in this section consists of seven statements based on the article Arnold & Reynolds (2003). This question captures the respondent's leisure shopping behaviour traits.

The third section of questions consists of eighteen questions that address the *online shopping experience*. The questions and statements have the same sources as with *leisure shopping* questions, though I tailor-made the questions to the topic of the *online shopping experience*.

The fourth section of questions are about the responder's attitude towards materialism. The questions are used in the article's of Richins & Dawson (1992) and Eastman et al. (1999) and adjusted to the thesis topic if necessary.

Then, four questions are included in the questionnaire to determine the expenditure power of the responder. The answers to the questions control for the financial power of the responder. The first two questions are borrowed from the *Questionnaire Income* available in the LISS Panel (2016a). The third question is borrowed from the Tilburg Consumer Outlook Monitor also used in the LISS Panel (2016b). The fourth question

is based on a question in the *Canadian Out of Employment Panel Survey* used by Statistics Canada (1995).

The last six questions are about the personal characteristics of the responder. The personal traits are used as control variables because they may bias the results of the analysis of happiness. There are significant differences between the shopping behaviour of male and female; females shop more frequently and have different shopping motivations (Chen-Yu & Seock, 2002). Moreover, gender is expected to affect happiness significantly, whereby female are happier compared to male (Gerdtham & Johannesson, 2001). However, this inequality differs per country (Meisenberg & Woodley, 2015). Age is expected to decrease the level of happiness significantly (Stanca, 2010). Happiness is expected to decrease with unemployment (Clark & Oswald, 1994; Gerdtham & Johannesson, 2001; Stanca, 2010). The marital status is expected to significantly affect happiness, whereby married responders are happier (Gerdtham & Johannesson, 2001; Stanca, 2010). Literature suggest that married people are happier than unmarried people; within the unmarried group, responders that never have been married are happier compared to divorced resonders and widow(er)s (Easterlin R. A., 2003). The health status is expected to significantly decrease the level of happiness, meaning that healthier responders are expected to be happier (Gerdtham & Johannesson, 2001; Easterlin R. A., 2003). Lastly, the level of happiness will increase with the level of education, so a higher level of education will result in a higher level of happiness (Gerdtham & Johannesson, 2001; Stanca, 2010).