

# WORKING PAPER

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**Compulsive buying in Denmark:  
The first study on Danish consumers' tendency to compulsive  
buying**

by

Lucia Reisch, Professor

Wencke Gwozdz, Associate professor

Gerhard Raab, professor

Department of Intercultural Communication and Management  
Porcelænshaven 18 A, DK-2000 Frederiksberg  
Copenhagen Business School

Prof. Dr. Lucia A. Reisch, Copenhagen Business School (DK)

Ass. Prof. Dr. Wencke Gwozdz, Copenhagen Business School (DK)

Prof. Dr. Gerhard Raab, University of Applied Sciences Ludwigshafen (D)

Contact: [lr.ikl@cbs.dk](mailto:lr.ikl@cbs.dk)

## Abstract

### Background:

The present study is the first study of Danish consumers on compulsive buying. It draws on a representative sample of 1,015 Danish consumers (aged between 15 and 84 years) and extends prior research undertaken in other countries (such as Germany, Austria, Switzerland, France, Canada, the US). It is the first study to shed light on the situation in a Scandinavian context and is designed to allow for a comparison with the situation in other countries.

### Results:

The prevalence of compulsive buying tendencies in Denmark are: 9.75% of the respondents show *compensatory* buying behavior and 5.81% show *compulsive buying* tendencies. These percentages are similar to those found in Germany and slightly lower than in Austria. They are also within the range of preferences in other countries.

Regarding socio-demographics, age and sex play a decisive role while marital status, education and income cannot be associated with compulsive buying. If there is such a thing like “a typical shopaholic”, it would be a women aged between 25 and 44 years, disregarding whether she is a single or not, has a low or high education and income. The internet offers shopping opportunities that lure both, potential shopaholics and compensatory buyers more than inconspicuous buyers. Compensatory and compulsive buyers have far more customer cards than others.

### Conclusion:

To sum up, this study identifies diverse factors that are related to compulsive buying behavior. To find out what cause is and what effect, more qualitative research as well as experimental studies are needed. Additionally, more intercultural comparisons could lead to insights into the effects of the social and cultural consumption environment, i.e., the role of norms, values, policies, and the mass media on buying behavior. This type of research has, to date, not been undertaken in any Scandinavian country. A first step is the comparison of Danish, Austrian and German data which is currently undertaken. The results of the present study together with future analyses could feed into strengthening consumer education and informing debt counseling and consumer advice. It is also relevant data for credit card companies and retail.

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## 1. Background and overview of the study

The present study is the first study of Danish consumers on compulsive buying. It draws on a representative sample of 1,015 Danish consumers (aged between 15 and 84 years) and extends prior research undertaken in other countries (such as Germany, Austria, Switzerland, France, Canada, the US). It is the first study to shed light on the situation in a Scandinavian context and is designed to allow for a comparison with the situation in other countries.

Compulsive or addictive buying is defined by the following characteristics (Scherhorn 1990):

- There exists an *urge to buy* which is irresistible
- A *dependency on shopping*, in the extreme leading to the loss of self-control
- A tendency to *increase the dosage* despite adverse consequences such as debts, personal or social losses
- *Withdrawal syndromes* ranging from uneasiness to psychosomatic indisposition

Conceptually, the authors build on 20 years of theoretical and empirical research in addictive buying, which has to a large extent been undertaken by the authors' research group (e.g. Neuner et al. 2005). The major screening instrument employed – the “German Compulsive Buying Scale” – was developed and validated by two authors of this study (Raab et al. 2005). To date, it has become *the* standard screening instrument for addictive buying tendencies in German speaking countries (including Switzerland) (Glasemer and Singer 2008, Mueller and de Zwaan 2008). The instrument consists of 16 items – each with four response categories from “don't agree” to “fully agree” and has been translated into Danish, adapted and pretested before the field phase (see Appendix Table A1 for Danish version).

In October 2010, the questionnaire was employed in representative samples in Denmark, Germany and Austria within the same two week period.<sup>1</sup> With the recent financial crisis as a backdrop, additional questions on financial behaviour, internet shopping and financial management complemented the surveys. In Denmark, the survey was conducted online by the market research institute Epinion.

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<sup>1</sup>Kollmann and Unger (2010). Kaufsucht in Österreich – 2010. Kammer für Arbeiter und Angestellte für Wien: Vienna. Raab and Unger (2010). Kaufsucht in Deutschland – Erhebung 2010 und der Vergleich zu den bisherigen Messzeitpunkten 1991, 2001 und 2009. Transatlantik-Institut FH Ludwigshafen: Ludwigshafen.

## 2. Results

In the following, descriptive results regarding the prevalence of compulsive buying in Denmark are presented. Other areas of interest are: socio-demographics, the meaning of internet shopping, credit and customer cards as well as households' financial management.

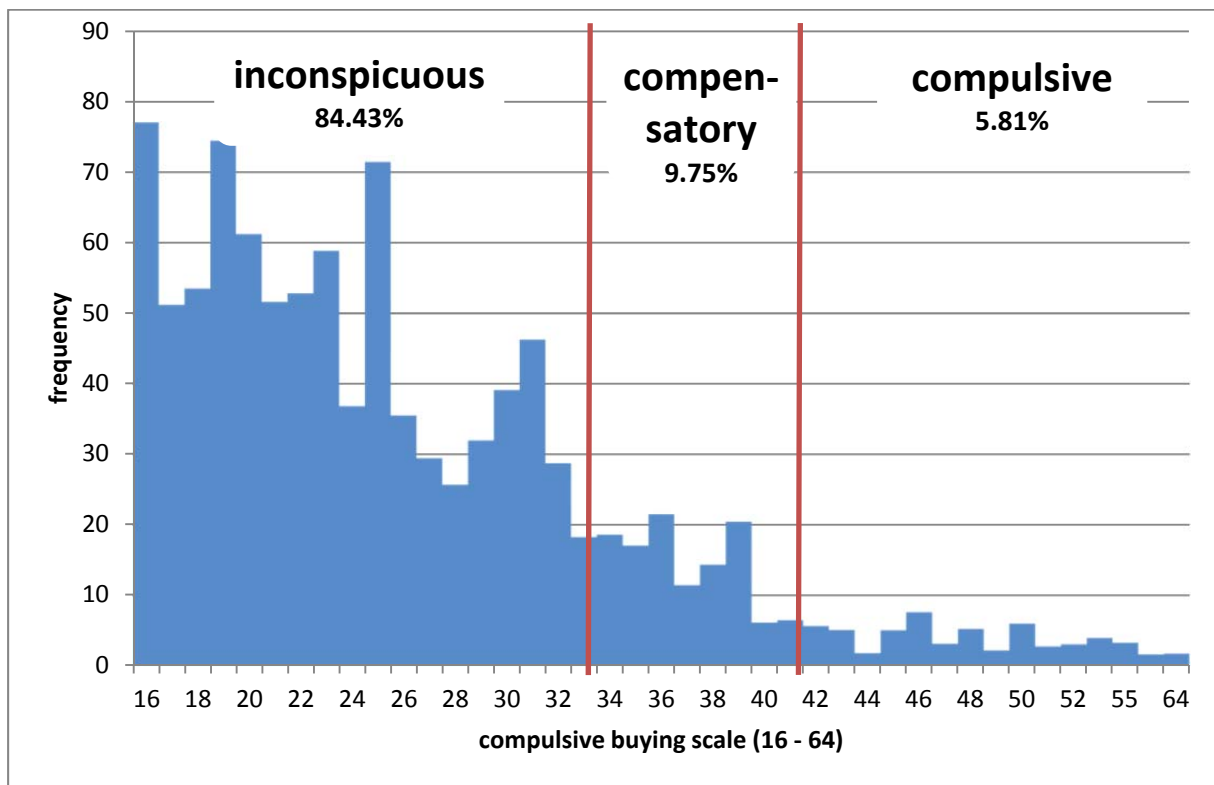
### 2.1. The prevalence of compulsive buying

The compulsive buying indicator ranges from 16 to 64 points with a mean of 25.50 points (SD 8.29). We follow Faber and O'Guinn (1992) to classify compulsive buyers in three groups: the mean plus one standard deviation is defined as *compensatory buying* behaviour; being prone to *compulsive buying* is defined as the mean plus two standard deviations. Hence, the cut-off scores for being at risk for compensatory buying is 34 points, and for compulsive buying 42 points on the scale:

- 16 – 33: “inconspicuous” buying behavior
- 34 – 41: compensatory buying behavior
- 42 – 64: compulsive buying behavior

The frequency distribution over the compulsive buying scale is depicted in Figure 1. Additionally, the three categories are marked. Following this classification, 84.43% of the respondents show inconspicuous, 9.75% compensatory and 5.81% compulsive buying behavior.

Figure 1: The compulsive buying scale – frequencies



## 2.2. Compulsive buying by socio-demographics

Many studies found that young women are especially vulnerable to compulsive buying behavior – often discussed as a “female addiction” (Reisch and Neuner 2002). Results of the 2010 German study on compulsive buying support this (Raab and Unger 2010).

### *Sex*

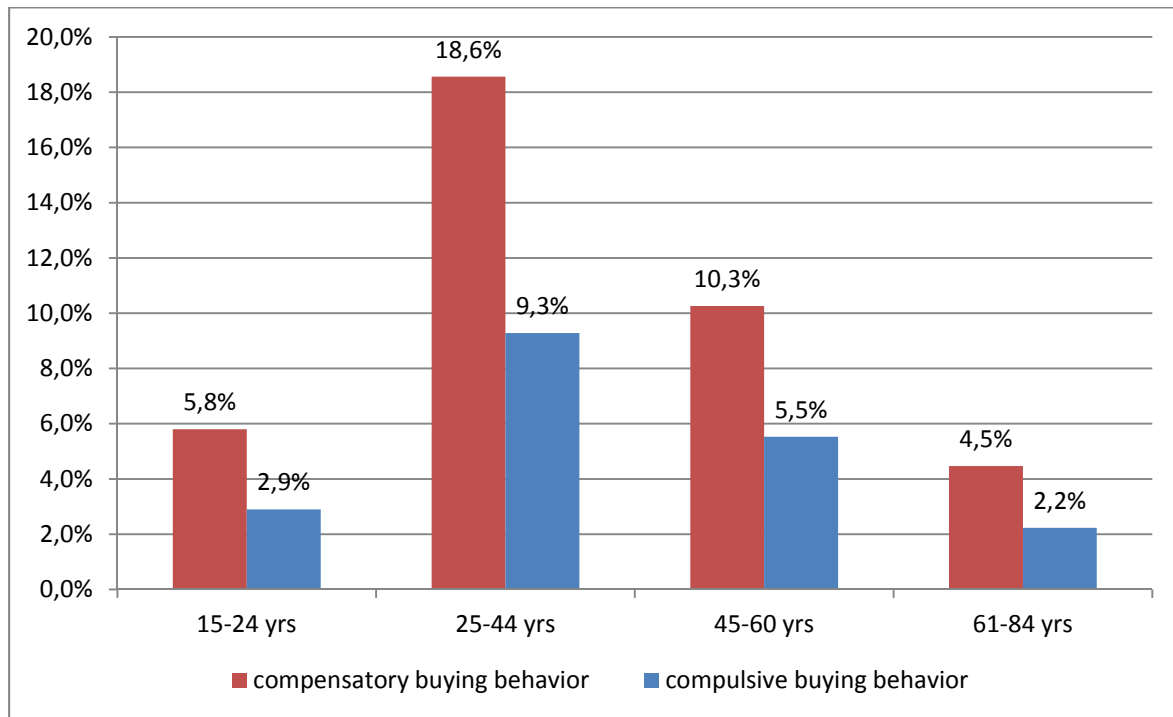
Analyzing the compulsive buying scale by sex, men have a mean score of 23.72 and women one of 27.00 which proves to be a significant difference (t-test:  $t=6.35$ ,  $p < .001$ ). 3.25% of men and 7.94% of women are prone to compulsive buying. 6.07% of the compensatory consumers are male and 12.82% are female. Hence, women are more prone to compulsive buying than men.

### *Age*

Figure 2 presents percentages of compensatory and compulsive buying behavior within four age groups. Looking at the graph, it becomes obvious that the consumers aged between 25 and 44 years are most prone to both, compensatory and compulsive buying behavior: 18.6% within this age group show compensatory buying behavior and 9.3% compulsive buying behavior. The groups are significantly different (ANOVA:  $F = 14.50$ ,  $p < .001$ ). By applying post-hoc-tests, we can also see that the age group 25 to 44 years differs significantly from all other groups; the youngest and the oldest age groups are least hit by compulsive buying and do not differ from each other. The age group of 45 to 60 years has a lower prevalence of compensatory and compulsive buying behavior than the age group 25 to 44 years, but a higher one than the youngest and the oldest age groups.

It is interesting to note that Danish results differ here from German and Austrian results: In the other two countries, the two youngest age groups have the highest prevalence of compulsive buying (Kollmann and Unger 2010), which is not the case for Danish consumers.

Figure 2: Compensatory and compulsive buying behavior by age categories (in percent)



### *Sex and age*

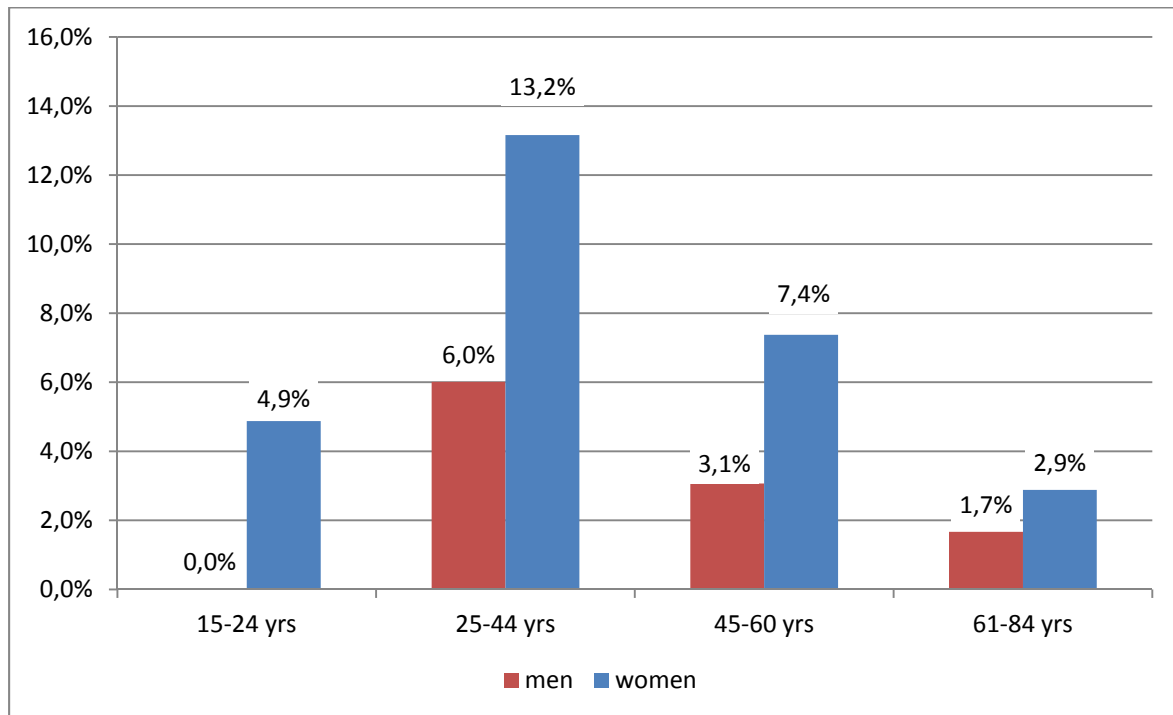
Figure 3 presents compulsive buying by age and sex combined. The previously mentioned higher prevalence in compulsive buying of women is also present in the diverse age groups – to a higher or lesser degree. The difference between men and women is only significant for the two middle age groups, while younger and older women are equally affected by compulsive buying as men.

A t-test, comparing men and women with regard to being compulsive buying, provides the following results for the four age groups:

- 15 – 24 years:  $t = -1.60$ ,  $p = .20 > .05$
- 25 – 44 years:  $t = -2.28$ ,  $p = .02 < .05$
- 45 – 60 years:  $t = -2.09$ ,  $p = .04 < .05$
- 61 – 84 years:  $t = -.89$ ,  $p = .37 > .05$



Figure 3: Compulsive buying behavior by age and sex



#### *Marital status*

The Austrian compulsive buying survey found that singles (including singles, divorced and widowed) are more often compulsive buyers than individuals living in partnerships (Kollmann and Unger 2010). In Denmark, singles reach on average a compulsive buying score of 27.00, individuals living in partnerships, in comparison, reach a score 25.78. This difference is significant ( $t = 2.06$ ,  $p < .05$ ). This does not result in a significant difference in compensatory or compulsive buying behaviour: 11.1% of singles and 11.6% of individuals living in partnerships are classified as compensatory buyers; for compulsive buying tendencies, the numbers are 6.4% and 5.5%, respectively.

#### *Education and income*

Moreover, we analyzed the relationship between compulsive buying and socio-economic factors such as education and income. Both are not related to compulsive buying. Hence, compulsive buying seems to be independent of the highest attained educational level as well as of the household's net income. This confirms prior research that found that, on average, all income and education levels are equally prone to buying addiction.

To sum up the relationship between socio-demographics and compulsive buying,

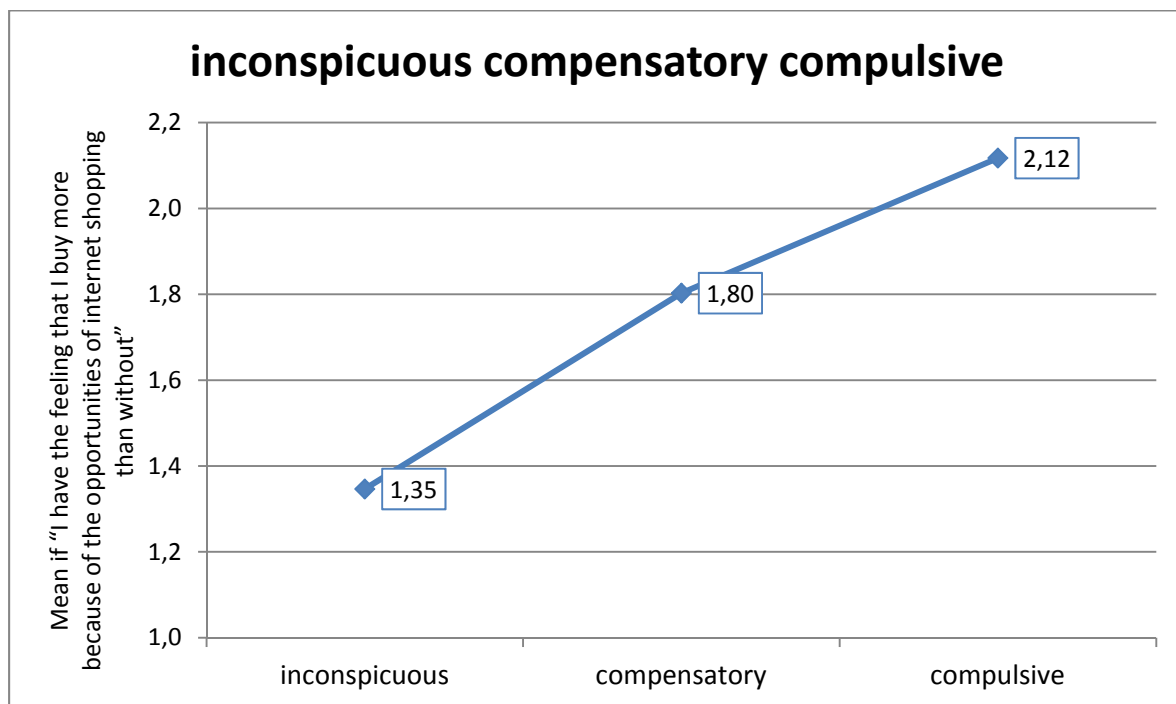
- The highest prevalence in shopping addiction in Denmark is found in female consumers aged between 25 and 44 years. (However, this does not mean that other age groups and men are fully resistant to compulsive buying).
- In contrast to Germany, the youngest age group does not show a similar high prevalence than the 25 to 44 year olds.
- Marital status, education and household income do not seem to play a role.

### **2.3.Internetshopping**

The internet offers wide opportunities to shop around the clock. The question “I have the feeling that I buy more because of the opportunities of internet shopping than without” investigates whether the opportunities the internet provides affect shopping behavior. Respondents could choose between four answer categories from 1 “don’t agree” to 4 “fully agree”.

There is a moderate positive correlation between the perception of internet shopping opportunities and the compulsive buying scale ( $r = .38, p < .001$ ). Figure 4 depicts the grade of agreement to the meaning of the internet by type of buyer. An ANOVA with type of buyer (inconspicuous, compensatory or compulsive buyer) as independent variable and the internet shopping question as dependent variable shows a significant effect ( $F = 34.8, p < .001$ ). All groups differ significantly from each other, meaning that compensatory buyers agree more to the internet shopping question than “inconspicuous” buyers and that compulsive buyers agree even more than the compensatory buyers. Thus, the opportunities of internet shopping seem to play a role for compulsive buyers – either as another opportunity to shop or as a fortifying factor (Raab and Neuner 2008). More qualitative research is needed to explore the relationship.

Figure 4: The meaning of the internet for different buyer groups

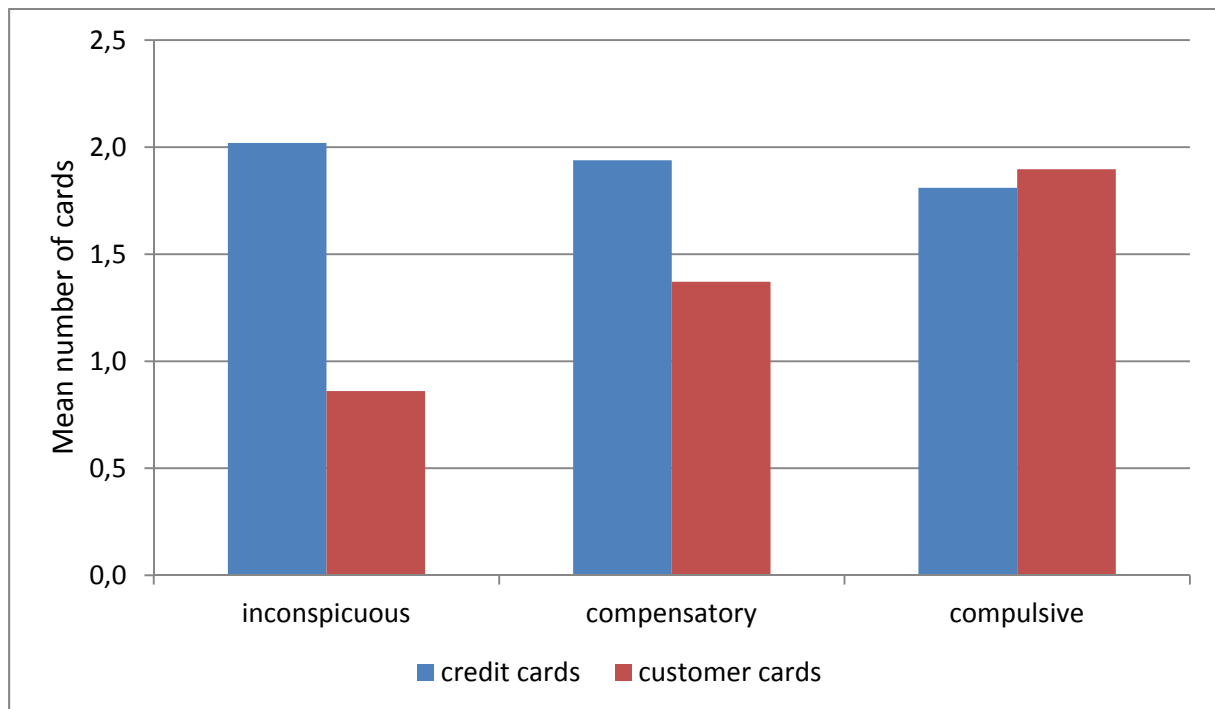


#### 2.4.Credit and customer cards

The number of credit and/or customer cards can be an indicator for compensatory or compulsive buying behavior. While credit and customer cards might not be the cause for compulsive buying behavior, they ease spontaneous shopping and lower the barriers to spend.

Figure 5 presents the average number of credit and customer cards by type of buyer, i.e., inconspicuous, compensatory or compulsive. It is interesting to note that the number of credit cards seems to decline slightly from inconspicuous to compulsive shopping behavior while the number of customer cards increases. One reason might be that it is more difficult to get and retain access to credit cards than to customer cards. Whatsoever, the number of credit cards does not differ significantly between the three consumer types (ANOVA:  $F = .99$ ,  $p = .371$ ), while the number of customer cards increases significantly from inconspicuous to compulsive buyers. Post hoc tests show that compensatory buyers have more customer cards than inconspicuous ones ( $p = .067$ ) and compulsive buyers have more customer cards than compensatory ones ( $p = .032$ ).

Figure 5: number of credit and customer cards by type of buyer



Interestingly, but not surprisingly, customer cards are more widely used by compulsive buyers, while the number of credit cards is about the same in all three groups.

## 2.5. Financial management

Another new question was about the administration of finances in the household. This is an interesting point since the type of a household's financial management provides information on access to finances, social control and the distribution of power between couples. These factors might also be interlinked with compulsive buying behavior.

Based on the International Survey Programme ISSP ([www.issp.org](http://www.issp.org)), we define the financial management as who controls the income in the household. The relevant question was: "How do you and your spouse/partner organize the income that one or both of you receive?" The answer categories ranged from 1) we keep our money separate, 2) we pool some money and keep the rest separate, 3) we pool all the money and each take out what we need, 4) my spouse/partner manages all the money and gives me my share and 5) I manage all the money and give my spouse/partner his/her share. We put the last two answer categories 4) and 5) together due to small numbers. The four remaining categories are: 1) separate, 2) partially pooled, 3) pooled and 4) one partner. This question was only answered by respondents indicating that are in a partnership and share a household, which accounts for 741 respondents.

Table 1 shows the average compulsive buying score as well as the percentages across the three categories inconspicuous, compensatory and compulsive buying behavior. There is a significant

difference between the groups (e.g., ANOVA for the compulsory buying score:  $F = 7.0$ ,  $p < .001$ ): Compensatory and compulsive buying “at risk” behaviour occurs significantly more often when the financial management is separate or partially pooled compared to pooled or one-partner administration. Social control by pooling money seems to reduce the likelihood of being or becoming a compensatory or compulsive buyer.

Table 1: Compulsive buying by financial management

	Compulsive buying score	Category			N
		Inconspicuous	Compensatory	Compulsive	
<b>Separate</b>	27.53	76.0%	17.3%	6.7%	104
<b>Partially pooled</b>	28.78	71.6%	18.9%	9.5%	148
<b>Pooled</b>	24.50	88.1%	7.6%	4.3%	445
<b>One partner</b>	24.59	84.1%	13.6%	2.3%	44

### 3. Summary

The study analyzed the prevalence of compulsive buying behavior in Denmark by employing the German Compulsive Buying Scale in a representative sample. Compulsive buying behavior was then associated to other factors such as socio-demographics, internet shopping, availability of credit and customer card as well as household’s financial management.

The prevalence of compulsive buying tendencies in Denmark are:

- 9.75% of the respondents show *compensatory* buying behavior
- 5.81% show *compulsive buying* tendencies.

These percentages are similar to those found in Germany and slightly lower than in Austria. They are also within the range of preferences in other countries.

Regarding socio-demographics, age and sex play a decisive role while marital status, education and income cannot be associated with compulsive buying. If there is such a thing like “a typical shopaholic”, it would be a women aged between 25 and 44 years, disregarding whether she is a single or not, has a low or high education and income. This does not mean that other age groups and men are not showing tendencies for compulsive buying.

Both, potential shopaholics and compensatory buyers seem to be more lured by the shopping opportunities the internet offers than inconspicuous buyers: The former state more often than the latter that they “buy more because of the internet than they would without”.

All consumers have on average two credit cards and there is no difference regarding the shopping behavior. Interesting to note is that compensatory and compulsive buyers have far more customer cards than others.

When households’ money is administered together, the prevalence of compensatory and compulsive buying is clearly lower.

To sum up, this study identifies diverse factors that are related to compulsive buying behavior. To find out what cause is and what effect, more qualitative research as well as experimental studies are needed. Additionally, more intercultural comparisons could lead to insights into the effects of the social and cultural consumption environment, i.e., the role of norms, values, policies, and the mass media on buying behavior. This type of research has, to date, not been undertaken in any Scandinavian country. A first step is the comparison of Danish, Austrian and German data which is currently undertaken. The results of the present study together with future analyses could feed into strengthening consumer education and informing debt counseling and consumer advice. It is also relevant data for credit card companies and retail.

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## 5. Appendix

Table A1: Compulsive buying screening tool in Danish

Questions	Statement	Scaling
1	Når jeg har penge, så skal jeg bruge dem.	1: passer ikke 2: 3: 4: passer 5: ved ikke
2	Når jeg går gennem byen eller et indkøbscenter, føler jeg en stærk trang til at købe noget.	The same
3	Jeg føler ofte en pludselig uforklarlig trang eller et tvingende ønske til at gå ud og købe noget.	The same
4	Nogen gange ser jeg noget og føler en uimodståelig impuls til at købe det.	The same
5	Jeg har ofte følt at jeg må have en bestemt ting.	The same
6	Efter et køb spørger jeg tit mig selv om det virkelig var vigtigt.	The same
7	Jeg køber ofte noget bare fordi det er billigt	The same
8	Jeg køber ofte noget bare fordi jeg har lyst til at shoppe.	The same
9	Jeg finder reklame kataloger spændende og bestiller ofte fra dem	The same
10	Jeg har ofte købt noget som jeg aldrig siden har brugt.	The same
11	Jeg har ofte købt noget som jeg egentlig ikke havde råd til.	The same
12	Jeg har det med at bortødsle penge.	The same
13	Shopping er for mig en måde at undslippe hverdagens ubehagligheder og slappe af.	The same
14	Nogle gange føles det som om at der er noget i mig der driver mig til at shoppe.	The same
15	Nogle gange får jeg dårlig samvittighed når jeg har købt noget til mig selv.	The same
16	Jeg har ofte ikke lyst til at vise andre hvad jeg har købt, da jeg er bange for at det virker ufornuftigt	The same