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Niklas Eriksson, Asle Fagerstrøm

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Niklas Eriksson<sup>i</sup>, Asle Fagerstrøm<sup>ii</sup>

## Abstract

Showrooming is a phenomenon that brick and mortar retailers are struggling to defend. In this study we conducted an explorative survey among undergraduate students (n=272) to better understand possible drivers of showrooming behavior in electronics and clothing retail. The results indicate that a young adult showroamer of electronics does not necessarily apply a showrooming behavior when shopping for clothes. Overall, young adult showroomers are characterized as active smartphone users and they perceive the smartphone as an important tool while visiting the retail store. Showroomers in electronics also seem to be slightly more price conscious than non-showroomers, while in clothing showroomers seem to be more impulsive than non-showroomers.

**Keywords:** showrooming, retail, smartphones, young consumers

## 1 INTRODUCTION

Retail is moving into an era of multifaceted consumers that are empowered with different types of technologies to facilitate decision making (Grewal et al., 2017). Mobile technology enables consumers to shop with increased channel flexibility, where they search for products in one channel but purchase it from another (Horky & Collier, 2016). Furthermore, self-service technologies and smartphones are increasingly being used in retail stores for decision support, especially for product categories that often generate high consumer involvement in the decisions process (e.g. clothing and electronics) (Eriksson et al., 2018). This type of behavior may also lead to a showrooming behavior where consumers search for information in a brick and mortar store but makes the purchase from a competing online retailer. This type of behavior has also been referred to as a free-riding behavior by customers (Mehra et al., 2013). Showrooming is a phenomenon that brick

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<sup>i</sup> Arcada UAS, Finland [niklas.eriksson@arcada.fi]

<sup>ii</sup> Kristiania University College, Norway, [asle.fagerstrom@kristiania.no]

and mortar retailers are increasingly struggling to defend (Rapp et al., 2015; Arora et al., 2017; Gensler et al., 2017; Fassnacht et al., 2019), especially in retail sectors such as electronics (Teixeira & Gupta, 2015). Consumers' decisions in electronics are heavily influenced by other consumers' opinions such as product reviews online (Simonsen & Rosen, 2014). Many brick and mortar retailers seem to struggle to redefine their role according to the world of omnichannel, where offline and online channels are becoming blurred (Willems et al., 2017). According to Gensler et al. (2017) the trend is that offline stores are more and more used as showrooms rather than places for actual purchases. There are some studies that focus on different types of showrooming drivers (e.g. Arora et al., 2017; Gensler et al., 2017; Daunt & Harris 2017). However, overall retail consumers' showrooming behavior seems to be sparsely researched. In fact, according to Gensler et al. (2017) "Although showrooming is a common shopping phenomenon and understanding its drivers is highly relevant for the retailing sector, empirical studies of showrooming are sparse".

Based on the above discussion it seems clear that there are limited studies on showrooming behavior in retail, thus we will in this study empirically explore consumers' reported showrooming behavior and its characteristics. Here the focus will be on young adult consumers (undergraduate students) and two product categories electronics and clothing. Young adult consumers are interesting to study as they seem to appreciate the retail store experience less than the older generation (Parment, 2013) and they are generally speaking heavy users of Internet and smartphones (Statistics Finland, 2017).

## **2 SHOWROOMING IN RETAIL**

The possibility to conduct price comparisons and product evaluations has been found in several studies to lead to a showrooming behavior (e.g. Lazaris et al., 2015; Gensler et al., 2017; Daunt & Harris, 2017, Arora et al. 2017). However, Daunt and Harris (2017) argue that showrooming is not solely price driven, but many other factors influence a showrooming behavior. In fact, their research shows that there is a complex series of determinants that drive showrooming and research should not only focus on consumer characteristics but also investigate different types of products and channels. Gensler et al. (2017) developed an extensive model where they proposed several variables to affect positively or negatively consumers' decision to showroom. Their research showed that online search costs, time pressure and availability of sales personnel in-store were negatively related to showrooming, while waiting time for service in physical stores has a positive effect on showrooming. Also consumers' perceptions of better quality and prices online, and perceptions of larger price dispersion online were positively related with showrooming (Gensler et al., 2017).

In a study by Rodriguez-Torres et al. (2017) they found that impulsive digital shoppers of clothes make greater use of mobile devices in their Omni-channel processes. The same study also showed that individuals who want to touch products physically are more inclined to online devices in shopping for clothes. Similar results were found by Arora et al. (2017); touching and feeling a product in a store was essential before purchasing it online. They also found that sales staff assistance was important for consumers to visit the store before purchasing online.

The smartphone is increasingly being used by young consumers inside electronics and clothing stores and it has the possibility to impact a showrooming behavior (Eriksson et al., 2018). Mobile apps for smartphones are shaping the Omni-channel retail environment (Lazaris, 2015). The use of a mobile device in shopping improves shopping time/savings in effort, monetary savings, improves purchase decisions (better purchase), and it gives an emotional benefit from shopping (Voropanova, 2015). Arora et al. (2017) concluded that consumers with better access to multiple channels were more likely to conduct a showrooming behavior.

Based on the presentation of previous research, we are in this small-scale empirical study raising the following research questions:

- To what extent are the investigated young adults reporting a showrooming behavior for electronics and clothing?
- Is there a difference in showrooming behavior for electronics and clothing?
- Are showroomers frequent smartphone users in-store?
- Do showroomers perceive the smartphone as important to use in-store?
- Are showroomers driven by a price conscious and/or impulsive behavior?

### **3 METHOD**

#### **3.1 Data collection**

A sample of 272 (20 cases were taken out due to missing data of the investigated variables) of undergraduate students in a Business program at Arcada UAS in Helsinki (Finland) were targeted with a questionnaire during the fall of 2017 and the fall of 2018. The sample is not representative for a total Finnish young adult population. The focus here is on exploring possible drivers of a showrooming behavior and thus we find the sample appropriate for the purpose of this study. Eight did not respond to the gender question. We did not exclude them from the final sample as the questionnaire was otherwise properly filled out. The final sample consisted of 174 males and 90 females. The average age was 21.49, with the youngest being 18 and seven respondents between 30 - 39. Of the respondents 232 (85.3%) were Finnish and 40 (14.7%) were of other nationality. All respondents reported that they own a smartphone with Internet connection.

#### **3.2 Measures**

Arora et al. (2017) suggested the following question in order to separate showroomers from non-showroomers; “Considering your recent purchases, did you gather information at a physical store before placing the order online?”. We asked the question for both electronics and clothing separately. Hence, the following two questions were asked in the beginning of the questionnaire; “Considering your recent purchases of electronics (TV, computer etc.), did you gather information at a physical store before placing the order

online?” and “Considering your recent purchases of clothing, did you gather information at a physical store before placing the order online?”. The following response options were available: “Yes”, “No”, “I don’t purchase these types of products online”.

Smartphone activities in-store were measured based on three variables: (1) Search for product information on the Internet, (2) Compare prices on the Internet and (3) Ask for advice (for example send picture of a product to friends for advice or comments). These three variables were measured on a 5-point scale, where the frequency anchors ranged from “Never” to “Always” and the importance anchors ranged from “Not at all important” to “Extremely important”. The frequency scores were based on the question “How frequently do you use your smartphone for the following activities while visiting a retail store?”. The importance scores were based on the question “How important is it for you to use your smartphone for the following activities while visiting a retail store?”. The questions were asked for both clothing and electronics. Hence, the word retail was exchanged with clothing and electronics in the questions presented above. Based on the three activities we composed a formative composite smartphone frequency measure based on the variety and the indicated frequency of use. Similarly, based on the three activities we composed a formative composite smartphone importance measure based on the variety and the indicated use importance. Similar formative composite scale-indexes of use have been used when studying consumer acceptance and use of information technology (Venkatesh et al., 2012). The descriptive statistics of the composite measures can be found in table 3 and 4.

Price consciousness was measured on three variables which are based on the following major sources Goswami and Khan (2015) and Sprolls and Kendall (1986): (1) In-store I buy as much as possible at “sale” prices, (2) In-store the lower priced brands are usually my choice and (3) In-store I compare prices to find lower-priced products. Impulsiveness was measured on three variables which are based on the following major sources Lee et al. (2014) and Sprolls and Kendall (1986): (1) I am impulsive when shopping in-store, (2) In-store I should plan my shopping more carefully than I do and (3) In-store I often make careless purchase decisions, which I later regret. The items were measured using a 5-point Likert scale, with the anchors being “strongly disagree” and “strongly agree”. Cronbachs’ alpha for price consciousness was 0.670 and for impulsiveness 0.755. According to Hair et al. (2010) an acceptable lever is 0.7, hence, the low alpha for price consciousness can be regarded as a limitation in this study. The descriptive statistics of the reflective composite scores for price consciousness and impulsiveness can be found in tables 3 and 4.

### **3.3 Statistical analysis**

We used the statistical package IBM SPSS 25 to conduct all statistical analysis. The preliminary analysis included exploration of normality, homogeneity test of variances and, as described above, an analysis with Cronbach’s alpha of internal consistency of the scales. The main analysis included descriptive data analysis, cross tabulation analysis with Pearson chi-square test and one-way ANOVA analysis with post-hoc tests. The chi-square test was chosen to test the association between two categorical variables and the

one-way ANOVA was chosen as the dependent variable is continuous and the independent variable is categorical.

## 4 RESULTS

We started by dividing the sample into “confirmed showroomers”, “potential showroomers” and “non-showroomers” for both electronics and clothing. The ones that responded “Yes” to the question “Considering your recent purchases, did you gather information at a physical store before placing the order online” we named confirmed showroomers and the ones that responded “No” but acknowledged that they do purchase these types of products online we named potential showroomers. The third group, the ones that answered, “I don’t purchase these types of products online”, we named non-showroomers. See table 1 for the proportions of showroomers for both electronics and clothing. We can see that 24.3 percent (margin of error  $\pm 5.1\%$  with CI 95%) are confirmed showroomers for electronics and 17.6 percent (margin of error  $\pm 4.5\%$  with CI 95%) are confirmed showroomers for clothing.

Table 1. Proportions of showroomers

Variable	Frequency (n=272)	Percentage
<i>Electronics</i>		
Confirmed showroomers	66	24.3
Potential showroomers	112	41.2
Non-showroomers	94	34.6
<i>Clothing</i>		
Confirmed showroomers	48	17.6
Potential showroomers	148	54.4
Non-showroomers	76	27.9

In a cross tabulation analysis, the Pearson chi-square test (15.605,  $p = 0.004$ ) shows that there is a clear difference in the distribution of showroomers between electronics and clothing. Hence, a confirmed showroomer in electronics is not necessarily a confirmed showroomer for clothing. In fact, from table 2 we can see that only 18 are confirmed showroomers for both product categories.

Table 2. Cross tabulation for electronics and clothing

Count	<i>Electronics</i>	Confirmed showroomers (n=66)	Potential showroomers (n=112)	Non-showroomers (n=94)
<i>Clothing</i>				
Confirmed showroomers (n=48)		18	16	14
Potential showroomers (n=148)		32	73	43
Non-showroomers (n=76)		16	23	37

Next we analyzed the different showroomer groups according to smartphone use frequency, smartphone importance, price consciousness and impulsiveness. In table 3 we

can see a one-way ANOVA analysis of the showroomer groups for the different variables in electronics and in table 4 we can see an one-way ANOVA analysis of the showroomer groups for the different variables in clothing. We use the Tukey post-hoc test to analyze the differences, as equal group variances are assumed. The homogeneity test of variances, Levene test, was non-significant for all analyzed variables.

For electronics we can see in table 3 that the F-value is significant for all variables. The non-showroomers score a significantly lower mean value for smartphone frequency and importance. Moreover, non-showroomers are clearly less price conscious than confirmed showroomers. The potential showroomers, on the other hand, score a significantly lower mean for impulsiveness than the confirmed showroomers do.

Table 3. Characteristics of showroomers in electronics

Variable	Total N = 272		Confirmed Showroomers N = 66		Potential Showroomers N = 112		Non-Showroomers N = 94		F-value	p-value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Smartphone freq. <sup>1</sup>	3.34	1.01	3.59 <sup>a</sup>	0.90	3.54 <sup>a</sup>	0.94	2.92 <sup>b</sup>	1.02	13.625	0.000
Smartphone imp. <sup>2</sup>	3.11	1.09	3.29 <sup>a</sup>	1.02	3.34 <sup>a</sup>	1.08	2.72 <sup>b</sup>	1.06	10.165	0.000
Price consciousness <sup>3</sup>	3.21	0.81	3.39 <sup>a</sup>	0.89	3.23 <sup>ab</sup>	0.76	3.07 <sup>b</sup>	0.88	3.171	0.044
Impulsiveness <sup>3</sup>	2.84	0.94	3.06 <sup>a</sup>	0.90	2.66 <sup>b</sup>	0.91	2.90 <sup>ab</sup>	0.98	4.068	0.018

<sup>1</sup>. Never [1] – Always [5], <sup>2</sup>. Not at all important [1] – Extremely important [5], and <sup>3</sup>. Strongly disagree [1] – Strongly agree [5] as total composite mean scores. Tukey HSD post-hoc tests are not significant at 0.05 level if the alphabetic superscripts are the same.

For clothing we can see in table 4 that the F-value is clearly significant for all variables except for price consciousness. The non-showroomers, as for electronics, score clearly the lowest mean value for smartphone frequency and importance. In addition, non-showroomers are clearly the least impulsive. The confirmed showroomers also find a smartphone clearly more important than potential showroomers.

Table 4. Characteristics of showroomers in clothing

Variable	Total N = 272		Confirmed Showroomers N = 48		Potential Showroomers N = 148		Non-Showroomers N = 76		F-value	p-value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Smartphone freq. <sup>1</sup>	2.92	1.10	3.28 <sup>a</sup>	1.04	3.02 <sup>a</sup>	1.08	2.49 <sup>b</sup>	1.05	9.504	0.000
Smartphone imp. <sup>2</sup>	2.58	1.09	3.11 <sup>a</sup>	0.92	2.68 <sup>b</sup>	1.10	2.05 <sup>c</sup>	0.93	8.589	0.000
Price consciousness <sup>3</sup>	3.21	0.81	3.31 <sup>a</sup>	0.87	3.24 <sup>a</sup>	0.77	3.11 <sup>a</sup>	0.83	1.066	0.346
Impulsiveness <sup>3</sup>	2.84	0.94	3.06 <sup>a</sup>	0.96	2.96 <sup>a</sup>	0.93	2.46 <sup>b</sup>	0.87	8.876	0.000

<sup>1</sup>. Never [1] – Always [5], <sup>2</sup>. Not at all important [1] – Extremely important [5], and <sup>3</sup>. Strongly disagree [1] – Strongly agree [5] as total composite mean scores. Tukey HSD post-hoc tests are not significant at 0.05 level if the alphabetic superscripts are the same.

## 5 DISCUSSION AND CONCLUSIONS

The aim of this study was to explore young adult consumers' showrooming behavior and its characteristics in electronics and clothing retail. The results show that 24.3% of the respondents agree to a showrooming behavior for electronics and 17.6% agree to a showrooming behavior for clothing. However, there seems to be a clear difference in the disposition of showroomers between electronics and clothing. A showroomer in electronics is not necessarily a showroomer for clothing. In turn, a non-showroomer in shopping for clothes is not necessarily a non-showroomer in shopping of electronics. This is in line with previous research that consumers' showrooming behavior depends on different product categories (Daunt & Harris, 2017).

For confirmed and potential showroomers in both electronics and clothing the smartphone seems to be a frequently used and an important tool while visiting the retail store. This is in line with previous research that the smartphone can provide monetary benefits and it gives possibilities to make better shopping decisions (Voropanova, 2015), and thus the smartphone enhances a showrooming behavior (Arora et al., 2017). Clothing do also have a symbolic meaning to consumers and clothing retailers should note that showroomers are likely to verify their purchasing decisions over a smartphone.

This study implies that retailers of electronics and retailers of clothes need to consider slightly different aspects of consumer characteristics in showrooming. Price conscious showroomers might be a higher concern in electronics, while in clothing, impulsive consumers might be more likely to conduct a showrooming behavior. Hence, it seems like a substantial number of purchases by showroomers in electronics ought to be based on deals, while in clothing a substantial number of purchases by showroomers ought to be unplanned. Nevertheless, also in electronics confirmed showroomers showed significantly higher impulsiveness than potential showroomers. This is interesting as it indicates that these two groups might use their smartphones in-store for different purposes. The confirmed showroomers may use their smartphones to justify their impulsive purchases while the potential showroomers may use their smartphones to verify their planned purchases. It could also be argued that smartphone use can fuel impulsivity (Eriksson et al. 2017) and thus it is possible that frequent smartphone use is associated both with showrooming and increased in-store sales.

To defend from price conscious showrooming it could be interesting from a retailer point of view to provide consumers with personalized deals over a smartphone e.g. according to a customers' historical in-store behavior (Eriksson et al., 2018), conduct cross-selling of products, provide a loyalty scheme or provide value deals (Arora et al., 2017). Providing enough availability of sales personnel in-store, as suggested by Gensler et al. (2017), ought also to help impulsive showroomers to make decisions that are more precise and an opportunity to drive them towards the stores' own sales channels. It is especially important for in-store sales that the quality of the salespersons' interactivity with showroomers is adequate, and thus proper sales training of staff is important (Fassnacht et al., 2019).

To sum up, this exploratory study has identified that product category, smartphone use, perceived smartphone importance, and consumer characteristics such as price conscious-



ness and impulsiveness are likely drivers for young adult consumers' propensity to conduct a showrooming behavior in retail. Hence, this study contributes to the discussion regarding showrooming in retail and it supports the notion by Daunt and Harris (2017) and Gensler et al. (2017) that showrooming is not solely price driven. Further studies could include other possible drivers to showrooming behavior, for example by extending or refining the framework by Gensler et al. (2017). This research is a work in progress and future studies with larger and more representative samples could also use additional measurements to capture showroomers and non-showroomers. The difference between the two product categories for conducting a showrooming behavior was clear in the study. Therefore, it is recommendable that future studies take into account different product characteristics. Studying showrooming in retail from a general product level perspective is not necessarily sufficient.

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