



Online Shopping Motives - An Empirical Investigation of Consumer Buying Behavior in Germany's Main Online Retail Segments

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Abstract. In the perpetual battle for increased revenues, online retailers need to understand what actions to take in order to turn non-buyers into buyers. This study researches the online shopping motives of German online shoppers and their online buying behavior in the main online retail segments: marketplaces, generalists, fashion, consumer electronics, beauty and toys. 19 German online retailers (representing approx. 70% of German online sales) were analyzed.

The research is based on extensive qualitative (focus groups) and quantitative research. The shopping motives construct was conceptualized and operationalized as a multidimensional construct with nine motivational categories. The data from the quantitative survey were analyzed using exploratory and confirmatory factor analysis, and nine shopping motives within 16 total dimensions were established: recreational orientation (social & inspirational shopping), convenience orientation (search & possession convenience), striving for independence, risk aversion (privacy, product, delivery & retailer-related), price orientation (= smart shopping), assortment orientation (variety seeking & specialization), advice orientation (company owned & third party), sustainability orientation (= ecological) and quality orientation (= visual appeal).

The differences between the online shopping motives of buyers and non-buyers in each of the six online retailing segments were investigated as pair comparisons using the Mann-Whitney-U test. The result is that there are significant differences in the online shopping motives in all researched industries. Most differences exist in the beauty industry where 14 of the 16 dimensions of shopping motives differ significantly. The fewest differences are in the marketplaces segment. Only five of the 16 dimensions of shopping motives differ significantly here.

Keywords: Online shopping motives ·
Recreational orientation (social & inspirational shopping) ·
Convenience orientation (search & possession convenience) ·
Striving for independence ·
Risk aversion (privacy, product, delivery & retailer related) ·
Price orientation (smart shopping) ·
Assortment orientation (variety seeking & specialization) ·
Advice orientation (company owned & third party) ·
Sustainability orientation (ecologically) ·
Quality orientation (visual appeal)

1 General Overview and Purpose

In 2018, German online sales reached 65.10 billion euros representing 12.5% of total retail sales (Bevh 2019). In some verticals, such as consumer electronics (31%) and fashion & lifestyle (16%), the online share of sales was significantly higher than the average (Statista 2018). The 10 highest-revenue online shops in Germany are the U.S. marketplaces Amazon and eBay, followed by generalists like Otto and vertical players from the fashion sector and the consumer electronics sector (EHI 2018).

The objective of this paper is to analyze the consumer behavior in German online retailing, with particular reference to shopping motives. The shopping motives construct originates from brick-and-mortar retail and was transferred to online and multi-channel retailing. The present research aims to conceptualize and operationalize the construct of shopping motives in a pure online commerce context.

The key questions addressed are the following:

- What are the shopping motives of German consumers who shop online?
- How can the online shopping motives construct be conceptualized and operationalized?
- Are there differences in the online shopping motives between buyers and non-buyers in the main online retail segments: marketplaces, generalists, fashion, consumer electronics, beauty and toys? And if so, what are they?

In order to answer these questions, this study researched 19 German online retailers. The present study is significant because to the author's knowledge, no research has been conducted to date on whether there are differences in the online shopping motives between buyers and non-buyers in a defined retail segment. In the perpetual battle for increased revenues, online retailers need to understand what actions to take in order to turn non-buyers into buyers.

2 Conceptual Framework

2.1 Shopping Motives in the Literature

One of the main determinants of the buying choices of a consumer (decision to buy or not to buy from a retailer, to buy online or offline, or to combine channels as part of a buying process) are the motives that trigger consumer behavior, the so-called shopping motives (Zaharia 2006; Schröder and Zaharia 2008). The online shopping motives construct originates from brick-and-mortar retail and was transferred to online shopping and multi-channel retailing. Shopping motives are defined as “fundamental, goal-oriented internal forces that can be satisfied by purchasing activities.” (Kroeber-Riel and Gröppel-Klein 2013, p. 206). Therefore, the hypothesis of the study is: *“Consumers who buy products online in a retail segment differ from non-buyers with respect to their shopping motives.”*

The question is which shopping motives are important in online shopping. Table 1 gives an overview of recent studies that deal with the construct of motives in the online

and multi-channel context with the associated concept and research design. Many studies distinguish between utilitarian (functional shopping motives) and hedonic online motivation. Hedonic shopping motives refer to aspects of shopping that go beyond the mere supply of goods and emphasize the fun and joy they bring (Hirschman and Holbrook 1982).

Table 1. Overview of recent studies on shopping motives

Author	Focus & Research design	Motives
Martínez-López et al. 2014 and 2016	– Focus: online consumption – qualitative study: focus groups & personal interviews – quantitative study: online survey at universities in Barcelona/ Spain; n = 669	Hedonic <ul style="list-style-type: none"> • Visual appeal • Sensation seeking/entertainment • Escape • Intrinsic enjoyment/relaxation • Hang out • Socialize • Self-expression • Role shopping • Enduring involvement with a product/service Utilitarian <ul style="list-style-type: none"> • Assortment • Economy • Convenience • Availability of information • Adaptability/customization • Desire for control • Payment services • Anonymity • Absence of social interaction
Ono et al. 2012	– Focus: online shopping (mobile) – quantitative study: online survey with students in Tokyo/Japan; n = 1,406	Hedonic <ul style="list-style-type: none"> • Adventure • Social • Gratification • Idea • Role • Value
Ganesh et al. 2010	– Focus: online shopping – qualitative study: in-depth interviews – quantitative study: online survey (web panel) USA; n = 3,059	<ul style="list-style-type: none"> • Role enactment • Online bidding • Web shopping convenience • Avant-gardism • Affiliation • Stimulation • Personalized services

(continued)

Table 1. (continued)

Author	Focus & Research design	Motives
Falode et al. 2016	<ul style="list-style-type: none"> – Focus: online and offline shopping (mobile) – quantitative study: survey, shoppers from Ibadan, Nigeria; n = 400 	<p>Hedonic</p> <ul style="list-style-type: none"> • Shopping enjoyment • Gratification shopping • Idea shopping • Shopping for aesthetic ambiance • Role shopping • Social shopping <p>Utilitarian</p> <ul style="list-style-type: none"> • Convenient shopping • Economic shopping • Achievement shopping
Zaharia 2006	<ul style="list-style-type: none"> – Focus: multi-channel shopping – qualitative data: focus groups & personal interviews – quantitative study: tel. survey, consumers of a multi-channel-retailer; Germany; n = 525 	<ul style="list-style-type: none"> • Recreational orientation • Convenience orientation • Striving for independence • Risk aversion (dimensions: privacy, product- & delivery- related) • Price orientation • Smart shopping • Advice orientation • Quality orientation

2.2 Online Shopping Motives

After extensive literature research, the question arose whether the conceptualization and operationalization of the shopping motives construct from international studies could be transferred to the German online retailing market. To check this, a qualitative study was done as a first step. Based on the results of the focus groups and the theoretical considerations, the construct online shopping motives was conceptualized and operationalized as a multidimensional construct with 9 motivational categories. The group discussions resulted in a new motive that did not appear in any of the previous studies: sustainability, with the two characteristics ecological and corporate. This may be especially true for Germany, where environmental awareness is particularly pronounced.

1. The shopping motive *recreational orientation* represents the hedonistic aspect of shopping (Schröder and Zaharia 2008). This includes emotional and social needs for an interesting, inspiring and fun shopping experience as well as social interaction with friends and acquaintances (Zaharia 2006, Ono et al. 2012). Based on the preliminary studies, the following three-dimensional recreational orientation motive was adopted: *social shopping*, *gratification shopping* and *idea shopping*.

2. One of the most important shopping motives in online retailing is the *convenience orientation*. Convenience orientation can be characterized by a desire to minimize the time, physical and psychological effort to search, compare and purchase a product (Kaufman-Scarborough and Lindquist 2002, Jiang et al. 2013). We subsume under this shopping motive the *search convenience*, *comparison convenience*, *transaction convenience* and *possession convenience*.
3. The shopping motive *striving for independence* expresses the need of customers to be able to shop freely and independently, especially with regard to time and place (Schröder and Zaharia 2008). One particular aspect of location independence is related to the device used to access the retailer's online shop or app. Depending on where the customers are located, they want to have control over their purchasing process through researching and purchasing from an online retailer regardless of the device they use (smartphone, tablet or laptop). This desire corresponds to the aspects "desire for control" and "autonomy" by Martínez-López.
4. The motive *risk aversion* refers to perceived risk. This refers to the customer's uncertainty about the negative consequences of an online purchase and the significance of these consequences. In online retailing, perceived risk is seen as one of the most important barriers to buying. Privacy-related risk was mentioned by the participants of the focus groups as a sensitive aspect of risk aversion. Product-related risks can be felt by the customer because she/he has to rely on the graphical representation and product information provided by the retailer. Delivery-related risks arise when the customer has no influence on the delivery time, the correctness and the quality of the delivery (Schröder and Zaharia 2008, Iconaru 2012). The reputation of a shop also plays an important role in the perceived risk of consumers. Therefore, the following five risk dimensions will be considered by the study: *payment-related risk*, *privacy-related risk*, *product-related risk*, *delivery-related risk* and *retailer-related risk*.
5. *Price orientation* refers to a pronounced price interest of the consumers. The motive can be subdivided into the factors inexpensive buying and price optimization (=smart shopping). Consumer with inexpensive buying behavior seek to spend as little money as possible regardless of the product quality and the service (Zaharia 2006). In contrast, smart shopping is primarily about finding the best possible price-performance ratio. Smart-shopping consumers tend to spend considerable time and effort to achieve price savings (Atkins and Kim 2012). Above all, finding "bargains" triggers a feeling of satisfaction. Therefore, we adopted in the study the following two-dimensionality of the motive price orientation: *in-expensive buying* and *smart shopping*.
6. The shopping motive *advice orientation* refers to the consumers' need to seek advice before making a purchase (Zaharia 2006). In online retailing, consumers use different types of advice in order to make safe purchase decisions, such as online merchant's services and third-party advice (e.g. reviews from other consumers, forums or comparison websites, Hönle 2017). As a result, we propose two dimensions for the operationalization: *Company owned advice* covers all consulting services offered by the retailer. And by these we mean in particular the need for personal consulting services when choosing the product with the possibility of interacting with a service agent. The dimension *third party advice* includes the use

of consulting services offered by third parties. Above all, user-generated content directly on the website of the provider, such as product reviews and experience reports are important in this dimension (Bahtar and Muda 2016).

7. Martínez-López et al. 2014 consider *assortment orientation* an important motivational factor in online shopping. A large assortment gives customers access to a wider range of information but also to more diversified products. The aspect of variety seeking corresponds to consumers' desire for change when purchasing, and it can refer to products, brands or the choice of the online shop (Swaminathan and Rohm 2004, Zaharia and Hackstetter 2017). This contrasts with the behavior of some consumers who buy special products that are available (almost) exclusively online or in specialized online shops. For this reason, we assume a two-dimensional assortment orientation motive, namely *variety seeking* and *specialization*.
8. Another dimension of the shopping motives identified by the focus groups is the aspect of *sustainability*. When consumers pay attention to sustainability, one of their goals is to protect the natural environment and the living conditions of present and future generations (Joshi and Rahman 2015). Based on the findings of the focus group, a conceptualization with two dimensions is proposed: *ecological* and *corporate*. The *ecological* dimension describes the need to deal with the ecological consequences of the purchase. In the online context of the study, this mainly concerns the pollution from delivery (including returns) as well as the problem of packaging waste. The *corporate* dimension incorporates all concerns that have a direct relation to the company. This includes working conditions, the use of corporate profits, compliance with laws and market power.
9. *Quality orientation* refers to the importance of a product's quality or performance. In addition to product quality, the quality of the online shop's presentation also plays an important role for the focus group participants. What is meant here is that customers draw conclusions about the product quality on the basis of the shop's perceived appearance, including product photos or presentation of information. This is associated with the hedonic aspect of an online shop's visual appeal as outlined by Martínez-López et al. 2014. Based on these findings, we propose a two-dimensional conceptualization: *product quality* and *visual appeal*.

3 Research Design and Results

3.1 Research Design

As a preliminary investigation, 26 online shoppers took part in four focus groups (November 2017). The participants were between 19 and 72 years old and in equal proportions female and male. The aim was to discover which shopping motives could be relevant to the online shopping behavior in Germany. On the basis of the pertinent literature and the results of the preliminary investigation, the shopping motives were conceptualized and operationalized.

The quantitative data of the main research was obtained from a representative sample of 1,000 German online buyers, of which 993 could be used for evaluation. The online survey took place in February 2018 using an online panel. The demographic characteristics of the participants can be found in Appendix 1.

In order to investigate possible differences in the shopping motives between the different retail segments, 19 online shops were examined, which together represent approximative 70% of total German online sales in 2018 (see Table 2).

Table 2. Examined segments in online retailing with the corresponding online shops

Segments in online retailing	Online shops
Marketplace	amazon.de; ebay.de
Fashion	zalando.de; bonprix.de; hm.com; esprit.de
Generalists	otto.de; galeria-kaufhof.de; lidl.de; qvc.de; tchibo.de
Consumer electronics	notebooksbilliger.de; mediamarkt.de; apple.com; saturn.de; medion.de
Beauty	douglas.de
Toys	babymarkt.de; mytoys.de

3.2 Shopping Motives

In the quantitative phase, the study had three basic objectives:

1. To empirically evaluate a total of nine shopping motives and 23 proposed dimensions gathered from the literature review and subsequently refined by the focus groups.
2. To analyze the proposed multi-item scales considering the common scientific quality criteria.
3. To assess the hypothesis by answering the central question: “Are there differences in the online shopping motives between buyers and non-buyers in the six online retailing segments: marketplaces, generalists, fashion, consumer electronics, beauty and toys? And if so, what are they?”.

In order to address the first two objectives, we adhered to the following procedure (Homburg and Dobratz 1991, p. 233):

- First, we checked whether the limit values for the quality criteria item-to-total correlation (ITC; ≥ 0.4) and Cronbach’s alpha ($\alpha \geq 0.7$) were met.
- Second, an exploratory factor analysis was carried out and we checked whether all indicators loaded on one factor, with the factor loadings ≥ 0.7 and the indicator reliability (IR) ≥ 0.5 .
- Third, we performed confirmatory factor analysis (AMOS) and checked whether the factor loadings are significant and whether the following criteria exceeded the minimum values: factor reliability (FR) ≥ 0.6 , average variance extracted (AVE) ≥ 0.5 , and whether the Fornell-Larcker criterion was met. Iterative attempts were made to fulfill the quality criteria by eliminating individual indicators. If that was not possible, the respective dimension or motive was removed from the model.

- Finally, the quality of the overall model was checked (AMOS).

The final result demonstrated that the nine shopping motives could be confirmed but not the proposed dimensionality. Figure 1 gives an overview of the hypothetical and empirical dimensionality of the shopping motives construct.

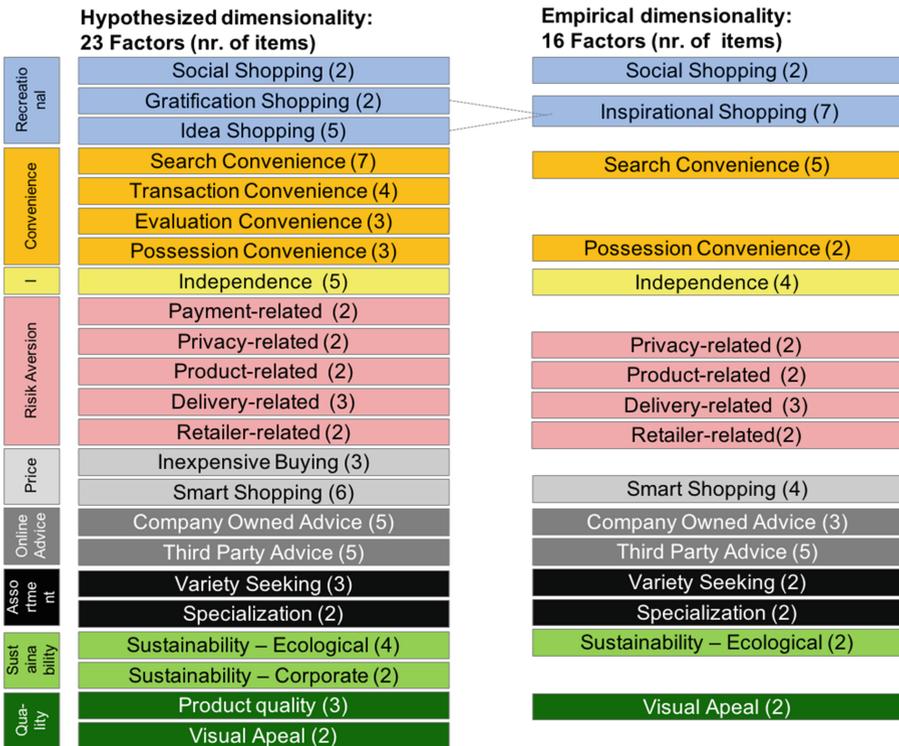


Fig. 1. Hypothetical and empirical dimensionality of the shopping motives construct

The two hypothesized dimensions of the recreational orientation, gratification and idea shopping, were incorporated into a new dimension, which we called *inspirational shopping*. Since only two dimensions of the convenience orientation exceeded the minimum value of the quality criteria, namely search and possession convenience, we focused only on these for further research. For the same reasons, we eliminated the dimension payment-related risks from the model. Also, for shopping motives price, sustainability and quality orientation, only one dimension for each was maintained. The dimensions in-expensive buying, corporate sustainability and product quality were dropped. The 16 remaining dimensions fulfill all quality criteria (see Table 3). The goodness-of-fit of this overall model is acceptable to good: $\chi^2/d.f.$: 3.47; NFI: 0.859; CFI: 0.894; RMSEA: 0.05. (Note that AMOS does not report GFI, PGFI, AGFI and RMR when estimating means and intercepts.)

Looking at the strength of the purchasing motives across all respondents, the following ranking of the mean values results (5 = maximum, 1 = minimum):

1. search convenience (4.30),
2. variety seeking (4.08),
3. possession convenience (3.95),
4. smart shopping (3.62),
5. product-related risk (3.61),
6. third-party advice (3.46),
7. retailer-related risk (3.45),
8. data-related risk (3.4),
9. assortment specialization (3.25),
10. inspirational shopping (3.16),
11. visual appeal (3.05),
12. delivery-related risk (3.08),
13. independence (3.04),
14. sustainability - ecological (2.49),
15. social shopping (2.27),
16. company owned advice (2.11).

It is not surprising to see that shopping motives best met by online retail occupy the top of the list. Similarly, the last three shopping motives – company owned advice, social shopping and sustainability are those least able to be fulfilled by online shopping. Rather, these motives make up the strengths of brick-and-mortar retail.

Table 3. Factor structure of shopping motives (including quality criteria)

Shopping motives	Shopping motive dimensions	Indicator	Factor loadings	ITC	C.	FR	AVE
			(≥ 0.7)	(≥ 0.4)	Alpha	(≥ 0.6)	(≥ 0.5)
			(IR ≥ 0.5)	(≥ 0.4)	(≥ 0.7)	(≥ 0.6)	(≥ 0.5)
<i>Recreational orientation</i>	Social shopping	SoS_1	0.914 (0.835)	0.670	0.802	0.803	0.671
		SoS_2	0.914 (0.835)	0.670			
	Inspirational shopping	GS_1	0.746 (0.557)	0.643	0.880	0.883	0.520
		GS_2	0.708 (0.501)	0.599			
		IS_1	0.802 (0.644)	0.713			
		IS_2	0.786 (0.617)	0.690			
		IS_3	0.760 (0.577)	0.663			
		IS_4	0.762 (0.581)	0.665			
	IS_5	0.785 (0.617)	0.694				
<i>Convenience orientation</i>	Search convenience	SC_1	0.718 (0.516)	0.570	0.842	0.847	0.527
		SC_2	0.822 (0.676)	0.698			
		SC_4	0.771 (0.595)	0.627			
		SC_5	0.775 (0.600)	0.635			
		SC_6	0.840 (0.705)	0.720			
	Possession convenience	PC_1	0.880 (0.775)	0.550	0.710	0.712	0.553
		PC_2	0.880 (0.775)	0.550			

(continued)

Table 3. (continued)

Shopping motives	Shopping motive dimensions	Indicator	Factor loadings (≥ 0.7)	ITC	C. Alpha	FR	AVE
			(IR ≥ 0.5)	(≥ 0.4)	(≥ 0.7)	(≥ 0.6)	(≥ 0.5)
<i>Risk aversion</i>	Privacy-related	PvR_1	0.948 (0.899)	0.797	0.887	0.887	0.797
		PvR_2	0.948 (0.899)	0.797			
	Product-related	PR_1	0.950 (0.903)	0.806	0.892	0.893	0.807
		PR_2	0.950 (0.903)	0.806			
	Delivery-related	DR_1	0.847 (0.718)	0.638	0.779	0.778	0.545
		DR_2	0.815 (0.665)	0.590			
		DR_3	0.835 (0.698)	0.619			
	Retailer-related	RR_1	0.872 (0.760)	0.520	0.684	0.693	0.533
RR_2		0.872 (0.760)	0.520				
<i>Independence orientation</i>	Independence	I_1	0.921 (0.849)	0.853	0.919	0.919	0.741
		I_2	0.897 (0.805)	0.813			
		I_4	0.886 (0.786)	0.797			
<i>Price orientation</i>	Smart-Shopping	SmS_1	0.784 (0.614)	0.598	0.804	0.804	0.508
		SmS_2	0.826 (0.681)	0.663			
		SmS_3	0.811 (0.657)	0.642			
		SmS_4	0.759 (0.576)	0.579			
<i>Online advice</i>	Company owned advice	CO_A_2	0.809 (0.655)	0.568	0.771	0.787	0.564
		CO_A_3	0.785 (0.616)	0.540			
		CO_A_4	0.894 (0.800)	0.718			
	Third party advice	TP_A_1	0.855 (0.731)	0.723	0.832	0.839	0.519
		TP_A_2	0.667 (0.445)	0.521			
		TP_A_3	0.714 (0.509)	0.57			
		TP_A_4	0.867 (0.751)	0.745			
		TP_A_5	0.780 (0.609)	0.623			
<i>Assortment orientation</i>	Variety seeking	A_3	0.913 (0.834)	0.669	0.801	0.824	0.707
		A_4	0.913 (0.834)	0.669			
	Specialization	A_1	0.874 (0.764)	0.527	0.687	0.723	0.576
		A_5	0.874 (0.764)	0.527			
<i>Sustainability orientation</i>	Ecological	S_E_3	0.880 (0.775)	0.550	0.709	0.720	0.567
		S_E_4	0.880 (0.775)	0.550			
<i>Quality orientation</i>	Visual appeal	Q_VA_1	0.774 (0.599)	0.532	0.763	0.779	0.547
		Q_VA_2	0.881 (0.775)	0.682			
		Q_VA_3	0.826 (0.683)	0.587			

Note: Factor loadings from explorative factor analysis. All indicators load only on one factor after the exploratory factor analysis.

All factor loadings (of the confirmative factor analysis) are significant at $p < .01$ level. All factors met the Fornell-Larcker criterion.

3.3 Comparison of the Buying Behavior in the Researched Online Retailing Segments

To test the hypothesis, the buyers and non-buyers of a segment were compared using the Mann-Whitney-U test. This test shows that there are significant differences in the

online shopping motives between buyers and non-buyers in the six online retailing segments: marketplaces (MP), generalists, fashion, consumer electronics (CE), beauty and toys (see Table 4). Therefore, the hypothesis H1 cannot be rejected.

Buyers and non-buyers of all six online retailing segments differ with respect to both recreational motives (social shopping and inspirational shopping) and their price orientation (smart shopping). Both motives are more pronounced with buyers. Only the shopping motive privacy-related risk aversion does not differentiate between buyers and non-buyers of any online retailing segment.

1. *Recreational Orientation*: Compared to non-buyers, buyers from all segments are looking for more *social* and *inspirational shopping*. These shopping motives are the strongest in the beauty and fashion industries.
2. *Search convenience* is the strongest online shopping motive. There are significant differences with regard to this shopping motive in the generalists, consumer electronics and beauty segments. With regard to *possession convenience*, there is a significant difference in all segments besides marketplaces. The possession convenience is most pronounced in the beauty industry.
3. With the exception of the generalists, buyers and non-buyers of all industries differed on *independence orientation*.
4. *Risk aversion*: with regard to *privacy-related risks*, there are no significant differences between buyers and non-buyers in any industry. The issue of privacy seems to be relatively important to all consumers (rank 8). *Product-related risks* only differ between buyers and non-buyers in the case of generalists and in the beauty industry. Furthermore, for *delivery-related risks* there are only weakly significant differences for marketplaces and in the beauty industry. In terms of *retailer-related risks*, there are significant differences in all industries except marketplaces and toys. In general, risk aversion is more pronounced among buyers than among non-buyers. This is probably also the reason why customers bought from the large, well-known online retailers surveyed here.
5. Buyers and non-buyers of all six online retailing segments demonstrate a highly significant difference with respect to their *price orientation (smart shopping)*.
6. *Advice orientation*: while *third party advice* ranks 6th among the shopping motives, the need for *company owned advice* is the least pronounced shopping motive (ranked 16th). The need for company owned advice is most pronounced in the consumer electronics and beauty industry, where it also distinguishes highly significantly between buyers and non-buyers. With the exception of the fashion industry, the need for third party advice is more pronounced among buyers than among non-buyers in all segments.
7. As far as the shopping motive *assortment orientation* is concerned, buyers in the beauty industry are those most concerned with *variety seeking* and the desire for *specialization*. The two assortment shopping motives differ significantly between buyers and non-buyers in all sectors with the exception of marketplaces (specialization) and marketplaces and toys (variety seeking).

- 8. *Sustainability orientation - ecological* does not seem to be particularly important for online buyers (ranked 14). Only in the fashion industry does it rank significantly higher among buyers than among non-buyers. One reason for this may be that this industry also has the highest return rates: on average, up to 50% (Wirtschaftswoche 2018).
- 9. *Quality orientation - visual appeal*: The need for visual appeal is significantly more pronounced among buyers than among non-buyers in all sectors with the exception of marketplace as well as toys.

Table 4. Comparison of buyer and not-buyer of online retailing segments with respect to their shopping motives (Mean) and the significance results of the Mann-Whitney-U test

Shopping Motives	Shopping Motive Dimensions	Mean	Market-Places	Generalist	Fashion	Consumer Electronics	Beauty	Toys
Recreational Orientation	Social Sh.	2.27	***	***	***	***	***	**
	<i>Buyer (n)</i>		2.30 (947)	2.43 (425)	2.42 (645)	2.48 (381)	2.90 (185)	2.55 (159)
	<i>Non-Buyer (n)</i>		1.56 (39)	2.14 (561)	1.98 (341)	2.13 (605)	2.12 (801)	2.21 (827)
Recreational Orientation	Inspirational Sh.	3.16	**	***	***	***	***	***
	<i>Buyer (n)</i>		3.17 (928)	3.35 (417)	3.35 (627)	3.33 (375)	3.74 (182)	3.42 (153)
	<i>Non-Buyer (n)</i>		2.70 (37)	3.01 (548)	2.80 (338)	3.05 (590)	3.02 (783)	3.11 (812)
Convenience Orientation	Search Conv.	4.13	n.s.	**	n.s.	**	**	n.s.
	<i>Buyer (n)</i>		4.30 (951)	4.36 (423)	4.31 (647)	4.36 (383)	4.39 (184)	4.30 (158)
	<i>Non-Buyer (n)</i>		3.70 (38)	4.25 (566)	4.28 (342)	4.26 (606)	4.28 (805)	4.30 (831)
Convenience Orientation	Possession Conv.	3.95	n.s.	***	**	***	***	*
	<i>Buyer (n)</i>		3.96 (954)	4.05 (524)	3.99 (648)	4.08 (383)	4.18 (184)	4.09 (159)
	<i>Non-Buyer (n)</i>		3.69 (39)	3.88 (568)	3.88 (345)	3.88 (610)	3.90 (809)	3.93 (834)
Independence Orientation	Independence	3.04	**	n.s.	***	***	***	***
	<i>Buyer (n)</i>		3.07 (933)	3.12 (415)	3.19 (635)	3.25(380)	3.51 (180)	3.44 (155)
	<i>Non-Buyer (n)</i>		2.43 (37)	2.98 (555)	2.77 (335)	2.90 (590)	2.94 (790)	2.97 (815)
Price Orientation	Smart Shopping	3.62	***	***	**	***	***	***
	<i>Buyer (n)</i>		3.65(942)	3.85 (422)	3.68 (643)	3.79 (378)	3.84 (184)	3.93 (158)
	<i>Non-Buyer (n)</i>		2.99(37)	3.44 (557)	3.52 (336)	3.51 (601)	3.57 (795)	3.56 (821)
Assortment Orientation	Variety Seeking	4.08	n.s.	**	**	*	***	n.s.
	<i>Buyer (n)</i>		4.10 (946)	4.15 (421)	4.14 (643)	4.15 (382)	4.31 (183)	4.13 (159)
	<i>Non-Buyer (n)</i>		3.64 (39)	4.03 (564)	3.96 (342)	4.04 (603)	4.03 (802)	4.07 (826)
Assortment Orientation	Specialization	3.25	n.s.	***	***	***	***	*
	<i>Buyer (n)</i>		3.26 (933)	3.45 (423)	3.37 (633)	3.41 (378)	3.68 (181)	3.41 (158)
	<i>Non-Buyer (n)</i>		3.15 (38)	3.11 (548)	3.04 (338)	3.16 (593)	3.16 (790)	3.22 (813)
Risk Aversion	Privacy-related	3.41	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	<i>Buyer (n)</i>		3.40 (945)	3.43 (421)	3.39 (645)	3.43 (382)	3.47 (184)	3.38 (157)
	<i>Non-Buyer (n)</i>		3.54 (40)	3.39 (564)	3.44 (340)	3.40 (603)	3.39 (801)	3.41 (828)
Risk Aversion	Product-related	3.61	n.s.	*	n.s.	n.s.	*	n.s.
	<i>Buyer (n)</i>		3.60 (949)	3.68 (424)	3.63 (647)	3.58 (383)	3.73 (184)	3.60 (158)
	<i>Non-Buyer (n)</i>		3.78 (40)	3.55 (565)	3.56 (342)	3.62 (606)	3.58 (805)	3.61 (831)
Risk Aversion	Delivery-related	3.08	*	n.s.	n.s.	n.s.	*	n.s.
	<i>Buyer (n)</i>		3.09 (944)	3.11 (423)	3.07 (645)	3.12 (382)	3.24 (183)	3.13 (158)
	<i>Non-Buyer (n)</i>		2.81 (40)	3.06 (561)	3.11 (339)	3.05 (602)	3.05 (801)	3.07 (826)
Risk Aversion	Retailer-related	3.45	n.s.	**	*	**	**	n.s.
	<i>Buyer (n)</i>		3.44 (918)	3.53 (411)	3.50 (627)	3.55 (375)	3.64 (178)	3.46 (154)
	<i>Non-Buyer (n)</i>		3.70 (37)	3.39 (544)	3.35 (328)	3.38 (580)	3.41 (777)	3.45 (801)
Advice Orientation	Company Owned	2.11	n.s.	*	*	**	**	n.s.
	<i>Buyer (n)</i>		2.12 (934)	2.21 (419)	2.16 (637)	2.24 (374)	2.38 (182)	2.27 (156)
	<i>Non-Buyer (n)</i>		1.92 (39)	2.03 (554)	2.01 (336)	2.02 (599)	2.05 (791)	2.08 (817)
Advice Orientation	Third Party	3.46	***	**	n.s.	***	***	***
	<i>Buyer (n)</i>		3.49 (937)	3.55 (420)	3.50 (636)	3.60 (376)	3.68 (180)	3.64 (156)
	<i>Non-Buyer (n)</i>		2.81 (36)	3.39 (553)	3.38 (337)	3.37 (597)	3.41 (793)	3.43 (817)
Sustainability Orientation	Ecological	2.49	n.s.	n.s.	*	n.s.	n.s.	n.s.
	<i>Buyer (n)</i>		2.50 (916)	2.50 (415)	2.56 (623)	2.54 (373)	2.53 (183)	2.59 (158)
	<i>Non-Buyer (n)</i>		2.26 (37)	2.50 (538)	2.37 (330)	2.46 (580)	2.48 (770)	2.48 (795)
Quality Orientation	Visual Appeal	3.05	n.s.	**	***	***	***	n.s.
	<i>Buyer (n)</i>		3.06 (932)	3.15 (420)	3.16 (634)	3.17 (379)	3.40 (181)	3.11 (159)
	<i>Non-Buyer (n)</i>		2.93 (38)	2.99 (550)	2.85 (336)	2.98 (591)	2.98 (789)	3.04 (811)

*** significant at p < .01 level, ** significant at p < .05 level; significant at p < .10 level; n.s. not significant; n=993

In summary, it can be said that the most pronounced differences between buyers and non-buyers are in the beauty industry. In comparing the strength of motives across all industries, then most appear strongest in the beauty industry. In the marketplace segment, there are the fewest differences between buyers and non-buyers.

4 Discussion and Limitations

The first conclusion of our research is that nine shopping motives with 16 dimensions in total could be defined and confirmed:

- recreational orientation (dimensions: social & inspirational shopping),
- convenience orientation (dimensions: search & possession convenience),
- striving for independence,
- risk aversion (dimensions: privacy, product, delivery & retailer related),
- price orientation (smart shopping),
- advice orientation (dimensions: company owned & third party),
- assortment orientation (dimensions: variety seeking & specialization),
- sustainability orientation (ecological)
- quality orientation (visual appeal).

Search convenience, variety seeking and possession convenience are the top three shopping motives among German online shoppers.

Secondly, the study has shown that there are differences in shopping motives between buyers vs. non-buyers in the researched segments. Most differences exist between online buyers and non-buyers in the beauty segment, where 14 of the 16 shopping motive dimensions differ significantly. The fewest differences are in the marketplaces segment, where only five of the 16 dimensions differ significantly.

Our examination also has limitations. In connection with the results of the group comparisons, it should be noted that these are significantly influenced by the selection of online shops we examined. In order to enable an objective analysis, we studied the top-selling German online retailers for every segment. Nevertheless, variation in customer shopping motives arising out of company differences between retailers *within* an industry should also be considered. Further research should benchmark individual retailers against peers in their segment with respect to shopping motives.

Another limitation has its origin in the representativeness of the investigation. In Germany, over 90% of online buyers have already bought from Amazon (IFH 2018). As a result, there are overlaps between buyers at marketplaces and buyers in other segments.

Notwithstanding these limitations, the present work provides an important contribution to the empirical investigation of shopping motives in online commerce. Against the backdrop of a growing e-commerce industry in Germany, as well as intensifying competition among retailers, the subject matter studied here will only gain in importance for science and practice in coming years.

Appendix 1: Demographic Characteristics of the Survey Participants

Gender	Male (48.2%); Female (51.8%)					
Age	18–29	30–39	40–49	50–59	60–69	70+
	23.30%	21.70%	23.70%	23.60%	6.40%	1.30%
Monthly household income (net in €)	<1.500€	1.500–1.999	2.000–2.499	2.500–2.999	3.000–3.499	3.500+
	14.30%	12.30%	12.20%	13.80%	15.70%	29.30%

Appendix 2: Operationalization of the Shopping Motives Construct

Shopping motives	Shopping motive dimensions	Indicator	Items
Recreational orientation	Social shopping	SoS_1	While I'm shopping online, I interact with my friends and/or acquaintances
		SoS_2	I like to shop online with my friends and/or family members
	Gratification Shopping	GS_1	Online shopping is a pastime for me.
		GS_2	I like to browse through various online shops
	Idea Shopping	IS_1	I find online shopping inspiring
		IS_2	While shopping online, I become aware of new trends
		Inspirational shopping ^a	IS_3
	IS_4		I like to receive suitable product suggestions on products already selected by me
IS_5	I like to receive personalized product suggestions that match my buying behavior with the retailer		
Convenience orientation	Search convenience	SC_1	It is important to me that an online store offers several filtering options
		SC_2	In an online store, a good search function is important to me
		SC_4	It's important to me that I can quickly find the product I'm looking for online
		SC_5	It's important to me that the online store has a good structure
		SC_6	It's important to me to find my way around an online store quickly
		SC_7	It's important to me that placing online orders takes as little time as possible
	Possession convenience	PC_1	It is important to me that the online shop offers the fastest possible delivery of the goods
		PC_2	It is important to me to know the exact delivery date when sending the order
		PC_3	For me it is important that I can return products ordered online as simply as possible

(continued)

(continued)

Shopping motives	Shopping motive dimensions	Indicator	Items
Striving for independence	Independence	<i>For me it is important...</i>	
		I_1	to have access to the online store from anywhere (for example via mobile devices such as mobile phones or tablets)
		I_2	that the presentation of the online shop is also suitable for mobile devices (mobile phone or tablet)
		I_4	I like to find out about products via the mobile device (e.g. mobile phone or tablet)
		I_5	I find it convenient to make purchases via a mobile device (such as a mobile phone or tablet)
Risk aversion	Privacy-related	<i>When placing an order on the Internet, the risk is high, ...</i>	
		PvR_1	that my personal information could be misused
		PvR_2	that my payment information is not secure
	Product-related	<i>When placing an order on the Internet, the risk is high, ...</i>	
		PR_1	that a product does not meet my expectations
	Delivery-related	PR_2	that the product does not match the illustration and/or item description
		<i>When placing an order on the Internet, the risk is high, ...</i>	
		DR_1	that the ordered product is not delivered
		DR_2	that the ordered product does not arrive at the scheduled time
	Retailer-related	DR_3	that it will be difficult to send ordered products back
RR_1		Certificates and seals (for example from Trusted Shops) are important to me	
RR_2		I'm afraid to order from unknown online stores that do not showcase certificates or seals	
Price orientation	Smart-Shopping	SmS_1	I like to use price search engines and/ or comparison sites to find the best price for an item
		SmS_2	I like to compare the price of an article in several online shops
		SmS_3	Before I buy a product in an online store, I like to search for discount codes and coupons
		SmS_4	I use promotions to get products at bargain prices

(continued)

(continued)

Shopping motives	Shopping motive dimensions	Indicator	Items
Online advice	Company owned advice	CO_A_2	When buying online, I miss having the opportunity to ask a sales representative for advice
		CO_A_3	I like to use the chat function or other consulting tools offered by an online shop
		CO_A_4	When buying online, personal product advice on the phone is important to me
	Third party advice	TP_A_1	For me it is important when buying online that I can use product reviews by other customers to inform my purchase
		TP_A_2	In order to better make my decision, I like to use comparison pages
		TP_A_3	For the online purchase decision, I like to access information from forums
		TP_A_4	Detailed reviews (for example, detailed comfort description of a mattress) by other customers are important to me
		TP_A_5	Customer reviews are more important to me than talking to the sales staff
	Assortment orientation	Variety seeking	VS_1
VS_2			I like to use online shops that offer a variety of brands
Specialization		A_S_1	I like to use online shops that specialize in certain items
		A_S_2	I like to order from online shops for certain brands
Sustainability orientation	Ecological	S_E_3	I feel guilty about placing multiple orders that contain only a single item
		S_E_4	I feel guilty when I return packages
Quality orientation	Visual appeal	Q_VA_1	I'm willing to pay more for online shops that are beautifully designed
		Q_VA_2	When buying a product online, it is important to me that the design of the online store fits the products
		Q_VA_3	When shopping online, I attach great importance to a visually appealing website

Note: The scores for the shopping motives were given on a 5-point Likert Scale from 1 “Strongly Agree” to 5 “Strongly Disagree”.

^aGratification Shopping & Idea Shopping were merged into Inspirational Shopping after the empirical check.

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