

# Assortments in Fashion E-Commerce

A Comparative Characterization of Leading Online Fashion Retailers in the German Market

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## Abstract

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Purpose of the research paper is to illuminate the subject of assortment policy in the German fashion e-commerce market. A short literature review is conducted in order to set up a system of characteristics to contemplate assortments on a strategic level. In a second step, structured observations are conducted to quantitatively analyze and compare the assortments of the leading online fashion retailers within Germany. Based on literature, the following characteristics for a classification of assortments can be identified: assortment structure, assortment size, assortment width, assortment depth, assortment consistency and rotation, price level, quality mix, fashion degree as well as the mix of private labels and manufacturer brands. Furthermore, the results of the empirical analysis show that there are currently five leaders within the analyzed market: Amazon, Otto, Zalando, Baur and About You. Among these five market leaders, Amazon positions itself as a retailer that not only offers an enormous assortment size, but also the lowest entry prices as well as the broadest price dispersion. Through the development of the system of characteristics for assortment analysis and the examination of the current market environment, the findings of this paper contribute to the current state of the art in both theoretical and practical aspects.

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## 1. Problem Definition and Relevance

In 2018, the turnover generated in Germany through business-to-consumer e-commerce amounted to approximately 63,700 million euros. In a global comparison, Germany ranks fifth with this turnover and the market volume is expected to grow by 6.9% annually until 2022. Thereby, fashion generates the second highest turnover (Statista, 2018).<sup>1</sup> In this growing digital environment with enormously intense competition, it is essential for retailers to clearly distinguish themselves from others. Especially in the fashion industry, which is characterized by its low predictability, short life cycles and high competitive density, the need for this differentiation is intensified even further (Christopher, Lawson, & Peck, 2004). In this context, a strategically elaborated assortment policy can be a successful instrument for clear positioning and profiling (Möhlenbruch, 1994; Ahlert & Kenning, 2007).

There exists a wide range of literature about assortment policy and assortment planning. However, most of the literature contains theoretical approaches and there hardly is any transfer of concepts from classic retail marketing to e-commerce or to the fashion industry. This paper is intended to contribute to closing this research gap and to use the elaborated principles of assortments and assortment policy to provide a descriptive image of assortments in the online fashion industry in Germany. For this purpose, assortments of leading online fashion retailers in Germany will be examined based on characteristics found in the literature with the aim of creating a descriptive overall picture of the fashion e-commerce market.

The following research questions arise from the objectives:

- Which criteria can be used to characterize fashion assortments?
- How are the assortments of the leading online fashion retailers in Germany structured regarding the characteristics found in the literature?

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<sup>1</sup> This source represents a digital market outlook within which Statista itself conducted primary research.

## 2. State of the Art

### 2.1. Assortment Characteristics

The most often discussed elements to characterize assortments are assortment breadth and depth. In general, assortment breadth is characterized by the fact that different needs can be satisfied with one single purchasing process and that additive purchasing options are offered. On the contrary, assortment depth provides alternative purchasing options for customers (Theis, 2007).

In this context, Hart & Rafiq (2006) consider two perspectives for analyzing assortments. The macro perspective represents the assortment at store level whereas the micro perspective represents individual product units within departments and categories. In the macro perspective, assortment width is referred to as the number of departments or categories carried by a retailer, whereas in the micro perspective breadth refers to the numbers of different product lines carried within a category and depth to the number of variants within a product line. Hart & Rafiq (2006) however do not mention assortment depth at the macro level. For this reason, the macro perspective of the framework should be complemented by the definition of Kök et al. (2008), which state that a retailer's depth refers to how many different articles are offered in each category.

Given fixed resources, a retailer has to make a trade-off between the different assortment dimensions (Kök et al., 2008). Furthermore, assortment breadth and depth always correlate with assortment size. Assortment size can be seen as the total of different options available for customers (Vries-van Ketel, 2006). Especially in e-commerce, a large assortment size is said to positively contribute to a retailer's success as there are no physical limitations (Ma, 2016).

In the literature, the structure of assortments is seen as an overriding element for analyzing assortments and therefore includes both the macro and the micro level as well as the assortment dimensions (Theis, 2007). Additionally, assortments are also characterized by their rotation and consistency. In theory, the consistency of an assortment can be defined in two different ways. On the one hand, assortment consistency means that a retailer carries specific brands, products or similar from one season to another (Krishan, Koelemeijer, & Rao, 2002). On the other hand, consistency refers to how different merchandise categories or departments are related to each other, e.g. similar price range, end-use and target groups, and make for a harmonious overall (Hart & Rafiq, 2006).

According to Mantrala et al. (2009), the quality level of an assortment is one of its main characteristics. However, customers usually match quality to price and try to find the best possible quality in the price range they are willing to pay (Rosenau & Wilson, 2014). Therefore, not only quality but also the pricing mix has a great influence on a retailer's image. The key drivers of customers' price perception are the average price level of a retailer as well as the dispersion of prices in assortments or product categories (Zielke, 2012; Hamilton & Chernev, 2013).

Besides the mentioned assortment characteristics, Tsafarakis et. al (2016) note that the issue of private labels versus manufacturer brands is often neglected in assortment planning literature. While retail companies used to be only the extended arm of manufacturers, today they occupy an increasingly striking position in the value chain. In general, private labels are understood as brands which are owned by a retailer himself or which are at least trademarked by the retailer, so that he appears as owner of the brand (Hyman, Kopf, & Lee, 2010; Swoboda & Weindel, 2016).

In fashion assortment planning, determining the most profitable mix between basic and fashion merchandise is essential (Rajaram, 2001). Nevertheless, the two concepts are not always clearly separable and there are many goods that fall between these extremes (Donnellan, 2014). In general, it can be said that "basic goods are functional goods that change infrequently and are generally considered necessities. Fashion goods are aesthetically appealing goods that change frequently and are generally considered nonnecessities" (Donnellan, 2014, p. 127).

### 3. Empirical Research

#### 3.1. Methodology

The following empirical section analyzes the assortments of the leading online fashion retailers in Germany according to the criteria explained in Chapter 2.1. For this purpose, structured observations are carried out. According to Saunders et al. (2009), structured observations systematically measure the frequency of events. Furthermore, they are characterized by a high level of predetermined structure as well as by quantitative analyses.

The empirical analysis will be divided into two parts. First, the macro level of assortments is analyzed for a larger sample of retailers. Based on the results, the significant market leaders are identified which are subsequently examined for the micro level in a second part. It is important to mention that the carried-out analyses are cross-sectional. A cross-sectional study can be defined as “the study of a particular phenomenon (or phenomena) at a particular time” (Saunders et al., 2009, p. 155). The goal of cross-sectional studies is to provide a snapshot of present conditions. Changes and developments over a period of time are therefore not of any interest.

The sample selection is based on net sales from operating activities generated in Germany in 2017 less returns and excluding sales tax.<sup>2</sup> Thereby, only online shops that focus on selling clothing or shoes as their main segment were counted (Langenberg, Hofacker, Eden, & Marks, 2018). Nevertheless, in order to screen the German online fashion market completely, Amazon and Otto are added to the sample as they are, according to Rösch (2018), of high importance.<sup>3</sup> On the other hand, shopping clubs such as Best Secret or Zalando Lounge are excluded from the sample.

Despite the importance of Amazon as a leading online retailer, it must be mentioned that its assortment cannot be evaluated in an accurate manner. To get an impression of the total assortment size, it is referred to Brandt (2017) who states that at the end of 2016 Amazon listed 229 million products. Compared to 2014, the assortment size doubled. Since it can be assumed that at some point a certain saturation occurs and the assortment expands more slowly, the assortment size of Amazon is given with a rough estimate of 400 million products in this paper. Furthermore, estimations are used within both the macro and the micro analysis to get an impression of the number of articles offered within categories.

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<sup>2</sup> The ranking on which the sample selection is built on can be found in Appendix A.

<sup>3</sup> The final sample for the empirical analysis can be found in Appendix B.

According to Chapter 2.1, a research matrix based on Hart & Rafiq (2006) was developed and forms the basis for the following analyses. Table 1 shows the original matrix extended by the characteristics found in the literature. Additions to the original model are highlighted in italics. However, due to the circumstances of this paper, not all of the listed assortment characteristics can be considered. The main reasons for this are the limited time frame and the methodology, especially in the sense of the cross-sectional studies. Therefore, the structure of assortments, the quality level, as well as assortment consistency and rotation are not further contemplated.

**Table 1: Assortment level research matrix**

Micro Level	Macro Level
<i>Structure</i> <i>Breadth (number of articles)</i> Depth (number of variants of articles) <i>Size</i> Price level Quality level Mix of manufacturer brands and private labels <i>Basic and fashion merchandise</i>	<i>Structure</i> Width (number of categories) <i>Depth (number of articles in categories)</i> <i>Size (total number of articles)</i> Assortment consistency <i>Assortment rotation</i>

Based on: (Hart & Rafiq, 2006, p. 345)



It is important to highlight that all articles visible to the customer are counted in one category. Therefore, overlaps may occur if articles are displayed in several categories. These overlaps are not excluded from the results. In order to obtain comparable results despite the heterogeneous structure of the different online shops, a category system was created to systematically analyze assortments on a macro level. This results in a classification according to the following categories: beauty, electronic goods, fashion, home and sports. Articles that do not fit into these categories are counted as 'others'.<sup>4</sup> Within the micro analysis, the same three categories are evaluated for the whole sample to achieve comparability. Based on market circumstances, bootcut jeans, midi dresses and leather skirts were chosen for a closer evaluation (Schnitzspahn, 2018; Textilwirtschaft, 2018; WGSN, 2018a, 2018b).

The macro analysis was conducted in CW48 and CW49 in 2018, the micro analysis in CW49, CW50 and CW51 in 2018. For each retailer, the articles listed were counted according to the predefined categories. All numbers were then recorded in a data base which later served as the foundation for further evaluations and analyses through pivot tables.<sup>5</sup>

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<sup>4</sup> The category system can be found in Appendix C.

<sup>5</sup> The data bases for the empirical analyses are displayed in Appendix D and F.

### 3.2. Findings Macro Analysis

#### Assortment Dimensions – Size

The data analysis clearly shows that Amazon is a clear pioneer in terms of assortment size. Otto, Zalando, Baur and About You then follow Amazon before a relatively large gap opens up to Asos. Figure 1 graphically illustrates this aspect and the top 10 retailers regarding assortment size and the total number of articles offered in thousands.<sup>6</sup>

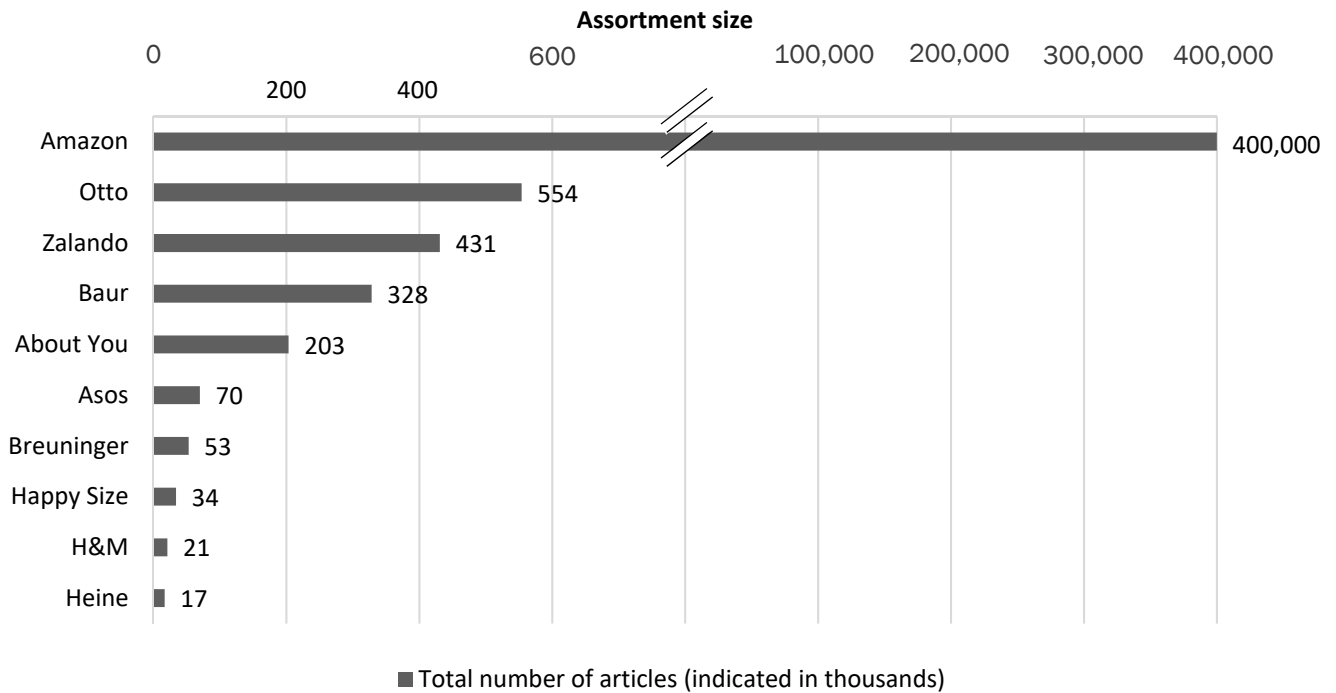


Figure 1: Leading online fashion retailers regarding assortment size

The above graphic indicates that only a handful online fashion retailers in Germany offer an outstanding large assortment. This can be shown by calculating the median for the attribute assortment size within the selected sample. The median of the data collected is 15,993 articles. The smallest assortment of the analyzed retailers is offered by Ernsting’s Family which is ranked 21<sup>st</sup> out of the top-selling fashion online shops in Germany. In total, Ernsting’s Family offers around 2,400 articles.

#### Assortment Dimensions – Width, Depth

<sup>6</sup> For the analyzed sample, all results regarding assortment size on the macro level are presented in Appendix E.

Amazon and Otto clearly offer the widest selection of all analyzed shops. However, from all the retailers focusing on fashion Baur offers an outstanding width as well. Thus, the retailer clearly differentiates itself from other competitors in fashion e-commerce. It generally has to be said that most retailers observed offer their customers an assortment that goes beyond clothing, shoes and accessories. Exceptions are Happy Size and Walbusch where clearly the narrowest assortments are offered. Besides those two retailers, Zara's selection is rather narrow as well since only a limited range of perfumes as well as a few candles as home decoration are offered as additional buying options for customers. Nevertheless, these extra options are not available in depth.

It is striking that the segments which are most offered next to clothing, shoes and accessories are home and beauty. 55% of all analyzed retailers offer products out of the beauty segment whereas 73% offer products out of the home segment. Furthermore – next to Amazon and Otto – About You, Adidas, Baur, Breuninger, Nike and Zalando, resulting in a total of 36% of all retailers, offer their customers sports equipment.

Amazon and Otto do not only offer the widest but also comparatively deep assortments. Furthermore, Zalando can show a great assortment depth at the macro level and therefore offers a lot of alternative choices to its customers. Generally, there are a lot of retailers within the sample which do neither offer an outstanding large nor a deep assortment. Table 2 illustrates assortment depth in terms of average number of articles displayed per category and assortment width regarding additional categories offered besides clothing.

Table 2: Assortment dimensions at the macro level

Retailer	Article per category	Additional categories offered
Amazon	446,843	6
Zalando	139,717	4
Otto	96,183	6
About You	67,217	3
Baur	45,660	6
Asos	20,827	4
Breuninger	14,738	3
Happy Size	11,343	1
H&M	5,891	3
Zara	5,287	2
S.Oliver	5,265	3
EMP	4,434	3
Heine	4,293	2
C&A	3,402	3
Witt-Weiden	3,005	3
Bonprix	2,951	2
Peter Hahn	2,420	1
Adidas	2,296	2
Nike	2,256	2
Esprit	1,728	3
Walbusch	1,324	0
Ernsting's Family	637	3

Both the findings regarding assortment size as well as assortment breadth and depth make it evident that Amazon, Otto, Zalando, Baur and About You stand out as clear market leaders. The following micro analysis will therefore take a closer look at these five retailers.

### 3.3. Findings Micro Analysis

#### Assortment Dimensions – Breadth

As already mentioned in Chapter 3.1, the assortment at the micro level is contemplated within three specific categories. In all three considered categories, Amazon clearly offers the greatest number of different articles. Especially when looking for midi dresses, more than 50,000 items are shown. Figure 2 shows the number of different items displayed by the retailers in each category.

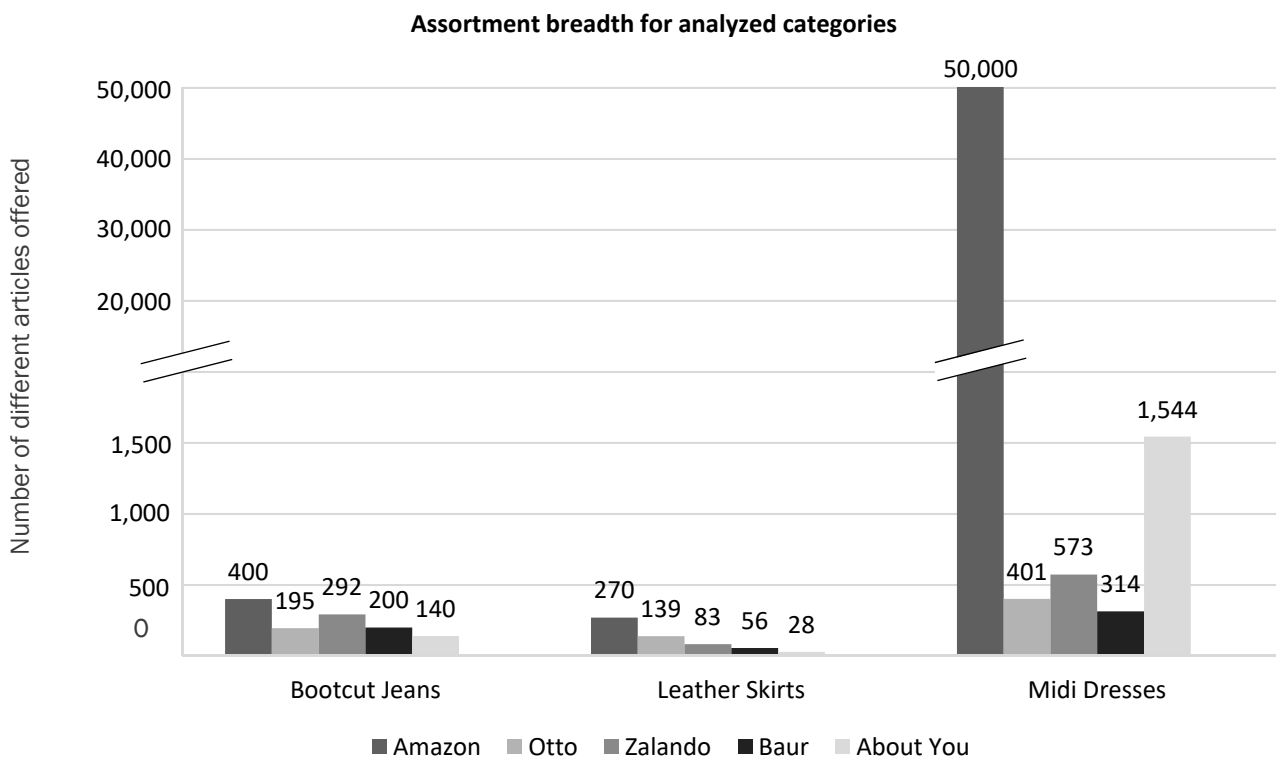
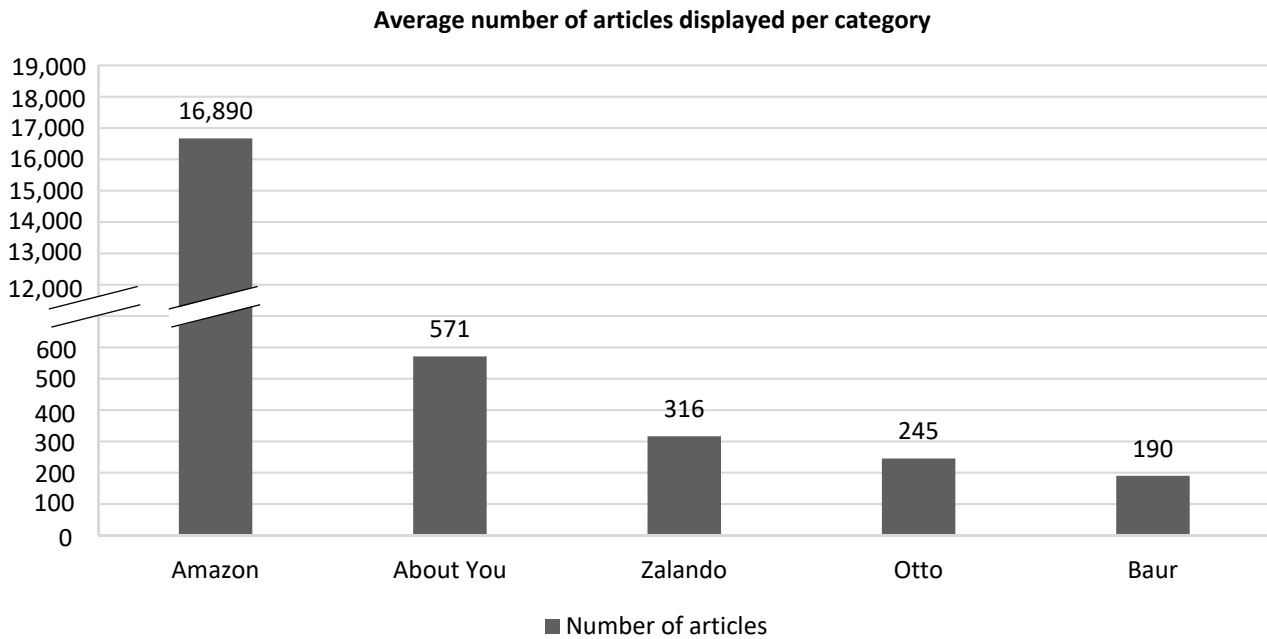


Figure 2: Assortment breadth for analyzed categories

Like Amazon, About You also has a clear peak in the midi dress category and offers about three times as many articles as the other retailers surveyed. However, About You offers the smallest assortment breadth in the other three categories observed. In the jeans section, Zalando performs particularly well alongside Amazon, while Otto stands out in the leather skirts category.

In order to get a concise impression of how the individual retailers are positioned regarding assortment breadth on a micro level, the following Figure 3 shows the average number of articles offered within the three counted categories.



**Figure 3: Average number of articles displayed per category**

As already mentioned, and also visible in Figure 2, Amazon thereby is clearly ahead of the other competitors. An average of 16,890 articles offered per category is counted for Amazon – followed by About You, Zalando, Otto and Baur. However, when considering the average numbers, it should again be noted that both Amazon and About You have specific breakouts in the midi dress category. If only looked at bootcut jeans and leather skirts, Zalando, Otto and Baur follow in turn after Amazon and before About You.

### Assortment Dimensions – Depth

To get an impression of the respective assortment depth, the number of articles offered in depth within the category is examined in relation to the assortment breadth. Thereby, Amazon again clearly lies ahead. Within the three categories examined – with an average of 45% – almost half of all items were offered in depth. About You follows with around 30%. Zalando ranks weakest with just under 10%, while Otto and Baur are on the same level with about 18%.

Basically, it can be said that regarding assortment depth, Zalando offers the least alternative options in all categories. Even though in total almost as many color options as at Otto and more than at Baur are offered, the total number is relativized in relation to the assortment breadth provided. Within the leather skirts category, alternative color options are not offered for any article by Zalando. However, it must be noted that this category is generally the one in which on average least alternative variants are offered to customers by all retailers. The highest average share of in depth offered articles could be observed for bootcut jeans. Here, Otto particularly

stands out with a deep offer. The evaluated shares of the articles offered in depth in the overall category, as well as the average result per retailer, can be derived from Figure 4.

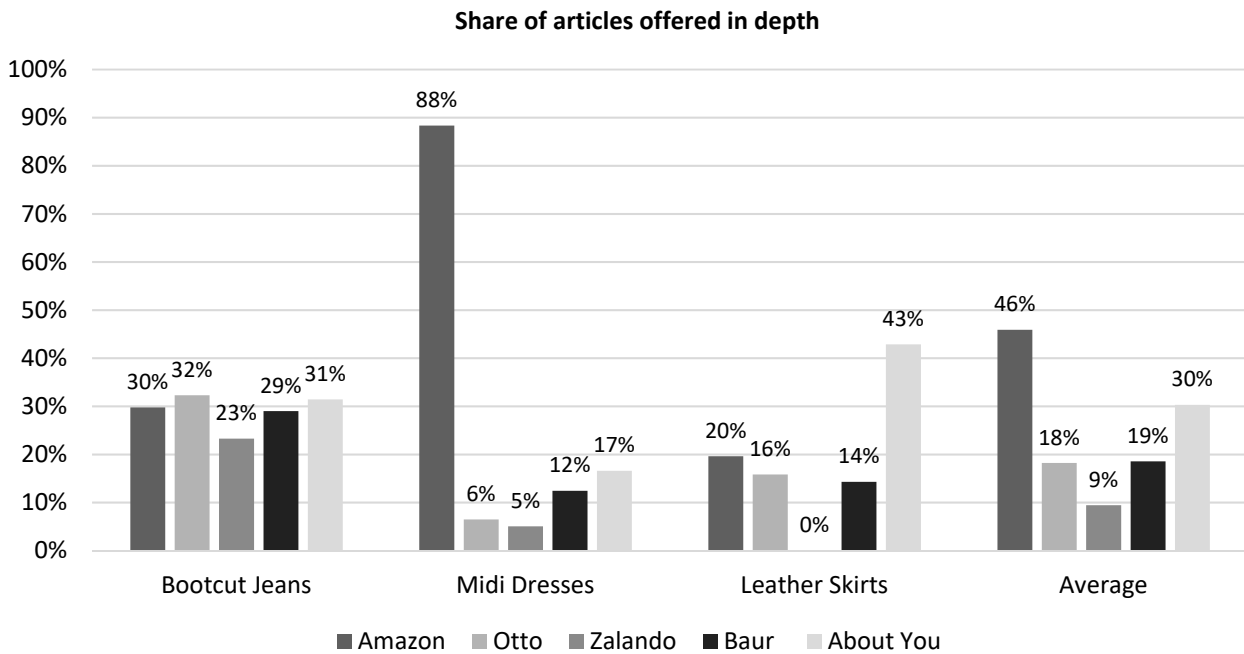


Figure 4: Shares of articles offered in depth

Besides the issue of for how many articles different purchase options are offered at all, the question of how many alternatives there are on average per item arises as well. For this purpose, all available additional color options were counted and distributed among the articles that are offered in depth. The result is shown in Figure 5. It is clearly visible that Amazon is ahead of its competitors in all categories. The other retailers are averagely on a similar level. However, according to the previous results of the micro analysis and the fact that there is no assortment depth provided in the leather skirt category, Zalando again falls slightly behind.

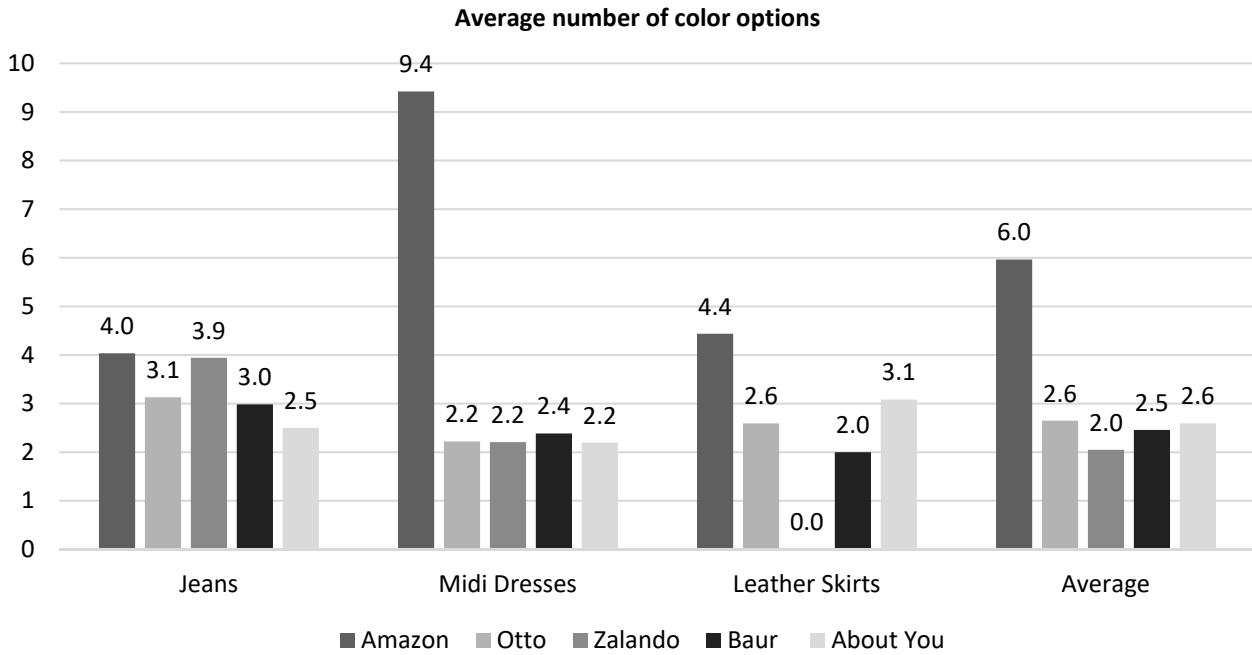


Figure 5: Average number of color options

Despite the fact that Zalando in total offers more color variations than Baur, Baur performs better than Zalando regarding assortment depth in the three categories analyzed. This is because, as already mentioned and visible in Figure 3, the assortment of Baur is narrower than the one of Zalando. Therefore, the offered style options are spread over fewer articles and relatively more articles are offered in depth with on average more color variations per article.

### Assortment Dimensions – Size

As stated in Chapter 2.1, the assortment size includes assortment breadth as well as assortment depth by representing the total purchasing options available for customers. The following Figure 6 makes visible that as with assortment breadth, Amazon is the clear leader by offering the most buying options in all categories, which is especially due to the wide range of midi dresses. The same goes for About You, where in all the other categories the least options are offered. The midi dress category thus again represents an outlier that has a significant influence on the total of the analyzed categories. This fact is visible in Figure 6 which illustrates the number of style options offered per category and retailer as well as the total value.



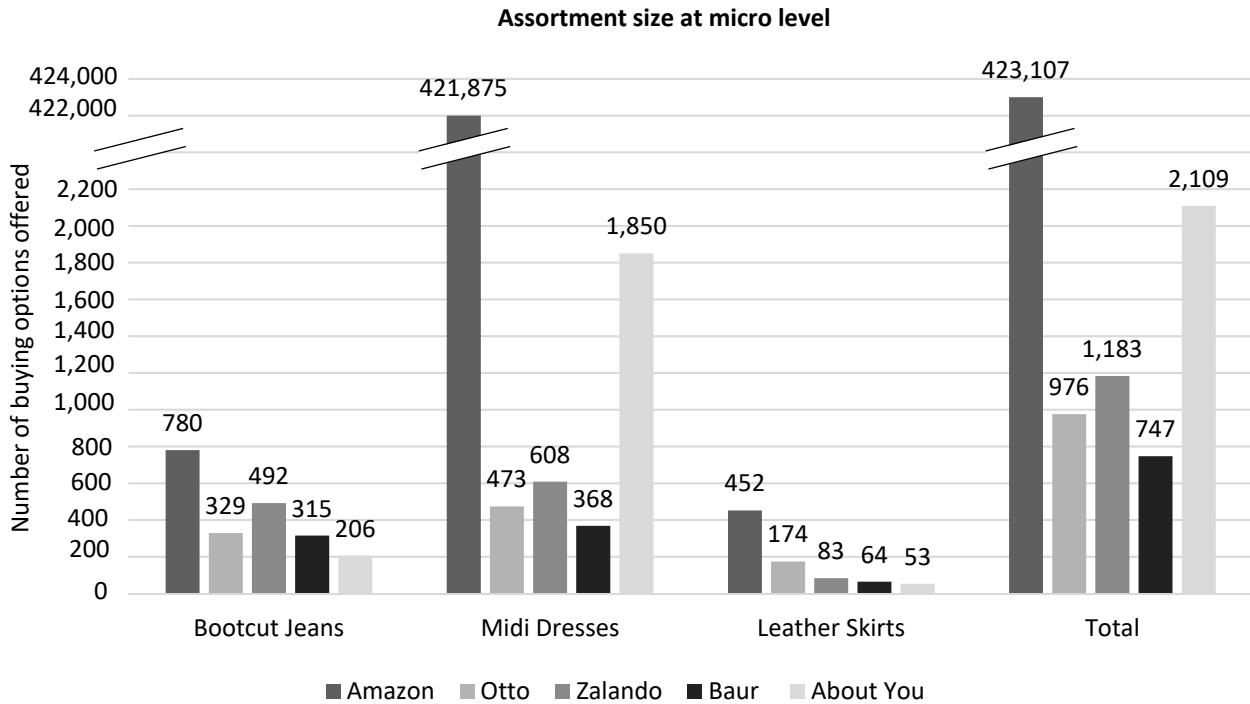


Figure 6: Assortment size at micro level

Furthermore, it is interesting to compare the results to the macro analysis, where Otto offers the second largest assortment followed by Zalando, Baur and About You. Looking at the results of the micro analysis, it is evident that Zalando and About You both offer larger assortments than Otto and Baur.

### Price Level

The price levels of all retailers in the three categories were analyzed based on the lowest offered price and the highest offered price. The recorded price dispersion is displayed in the following Figure 7, Figure 8 and Figure 9. It can clearly be seen that all five retailers offer both entry-level and higher-priced products. Amazon, Zalando and About You generally offer higher price levels than Otto and Baur. The highest price dispersion can be registered at Amazon, where customers can buy clothes for only a few euros yet also for several thousand euros. Additionally, it is also particularly striking that Zalando offers the same entry-level price point, which is in the range of 19 euros, in all three categories.

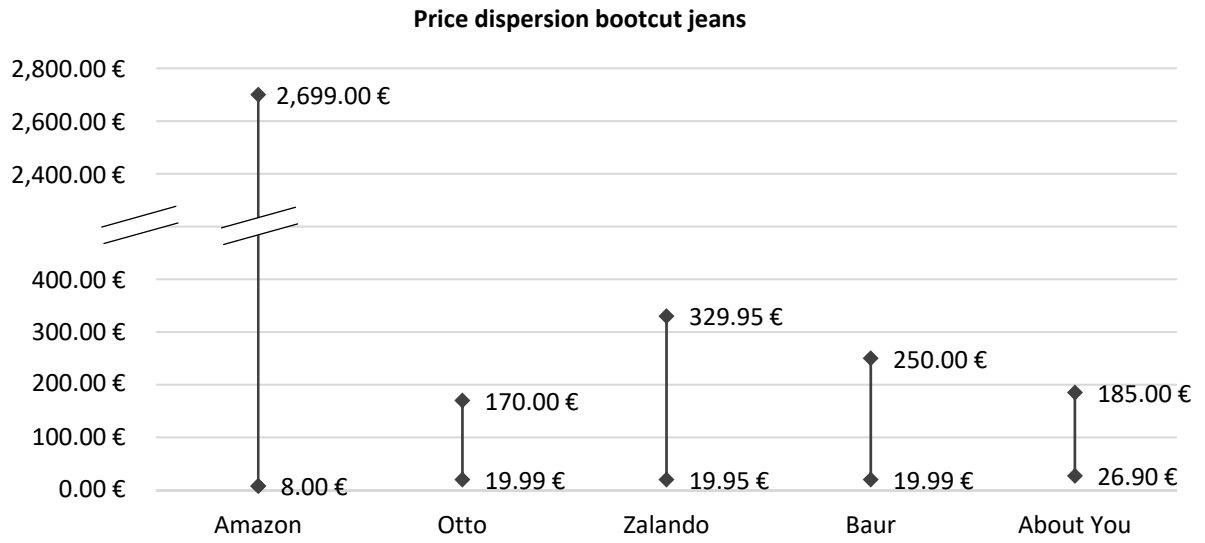


Figure 7: Price dispersion bootcut jeans

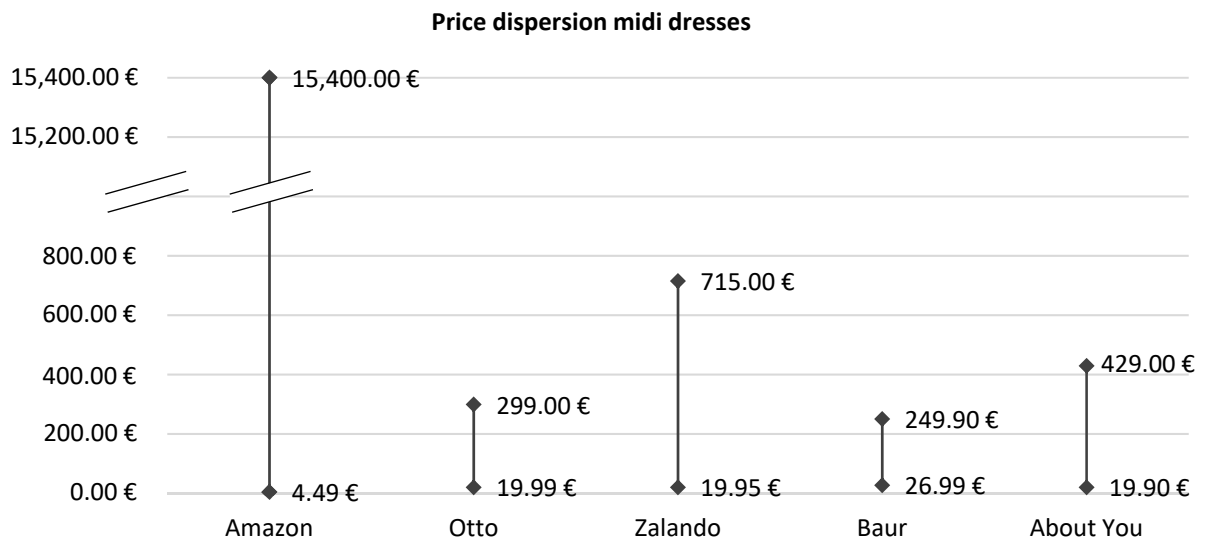
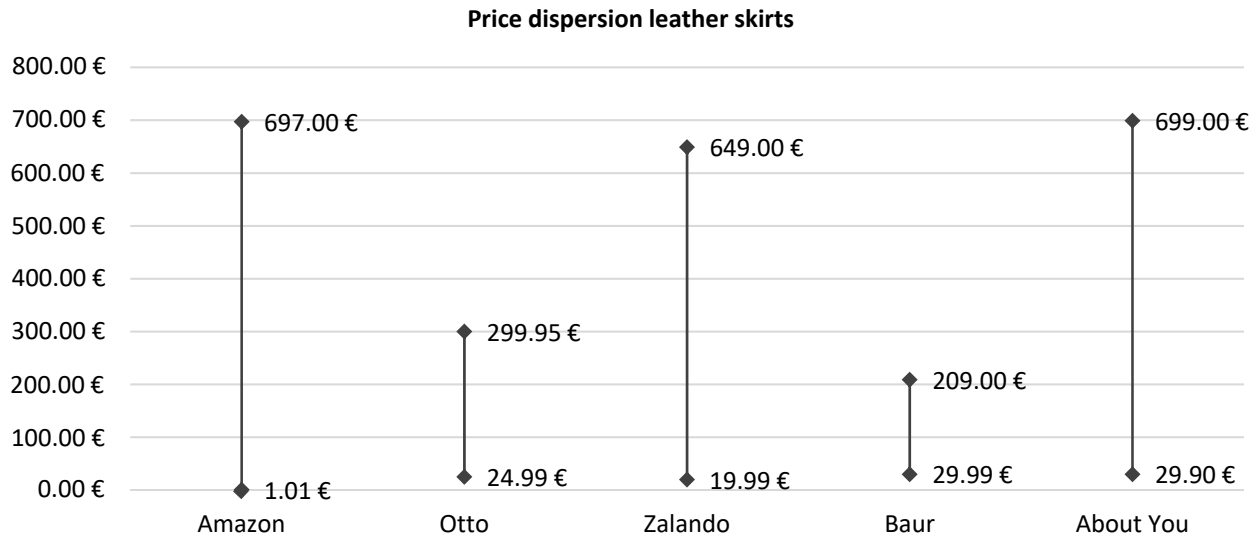


Figure 8: Price dispersion midi dresses



**Figure 9: Price dispersion leather skirts**

When looking closer at the price ranges of Amazon, it is clearly visible that the assortment has a clear focus on entry price products. Almost 50% of all counted articles are between 0-30 euros. Additionally, the segment between 31-50 euros also accounts for a larger share of the price distribution. Furthermore, it is surprising that Amazon, despite its focus on low prices, also covers the most expensive price range better than its competitors.

On the contrary to Amazon, Otto, Zalando and About You focus on the price levels of 31-50 and 51-80 euros. In principle, the price structures of the three retailers look quite similar, although at Zalando the offer of products priced above 200 euros is more strongly expanded than at Otto and About You.

Baur comparatively offers few products in the entry-level price range. The price ranges between 31-150 euros are offered relatively evenly. Especially in comparison to the competition, it is noticeable that Baur clearly covers the price range 100-150 euros the strongest within the considered sample. The percentage share of the different price ranges for Amazon, Otto, Zalando, Baur and About You can be seen in Figure 10.

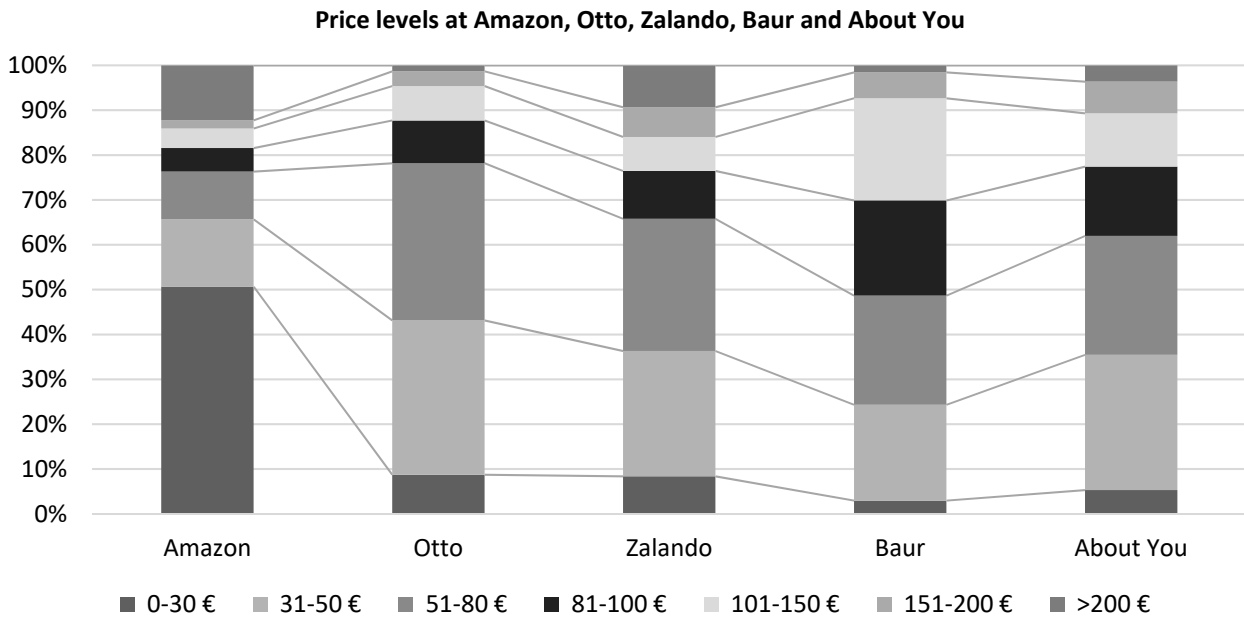


Figure 10: Price levels at Amazon, Otto, Zalando, Baur and About You

Looking at the average prices of the individual retailers, Zalando is clearly at the top with 131 euros. As expected, Amazon has the lowest average price at around 47 euros. With an average price of approximately 92 euros, About You is also positioned slightly more expensively, whereas both Otto and Baur are in the midfield with an average of 65 and 76 euros. Figure 11 shows the results for the calculated average prices

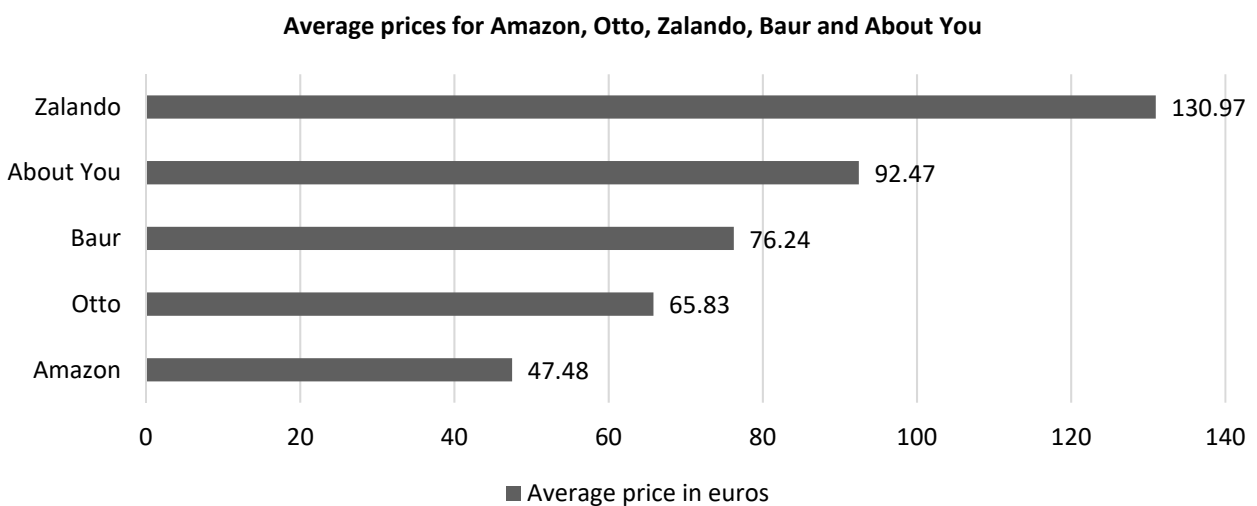
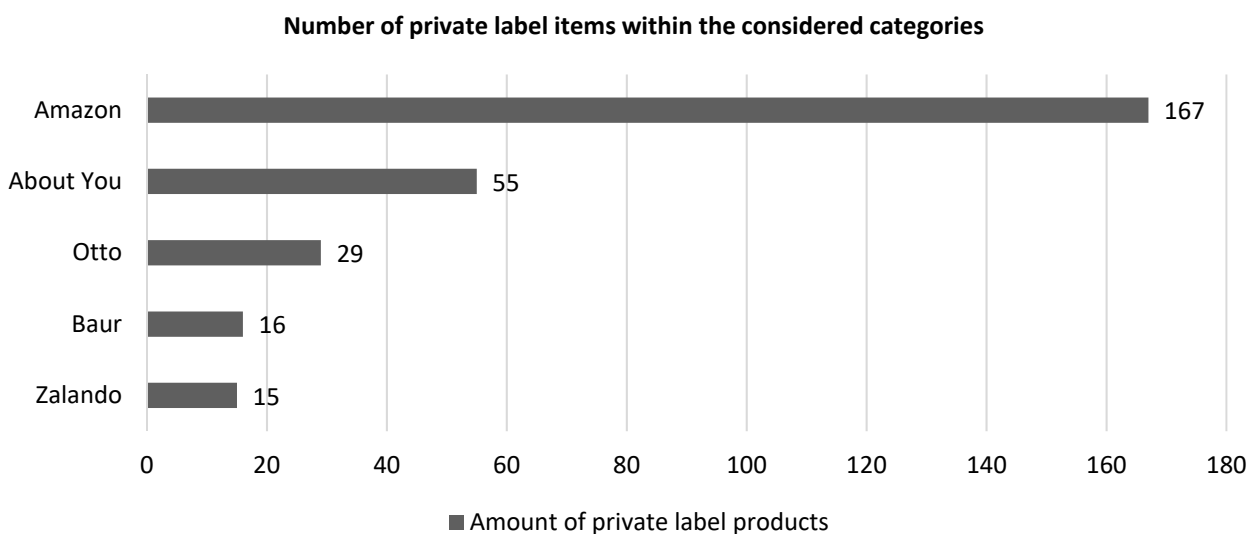


Figure 11: Average prices for Amazon, Otto, Zalando, Baur and About You

Mix of manufacturer brands and private labels

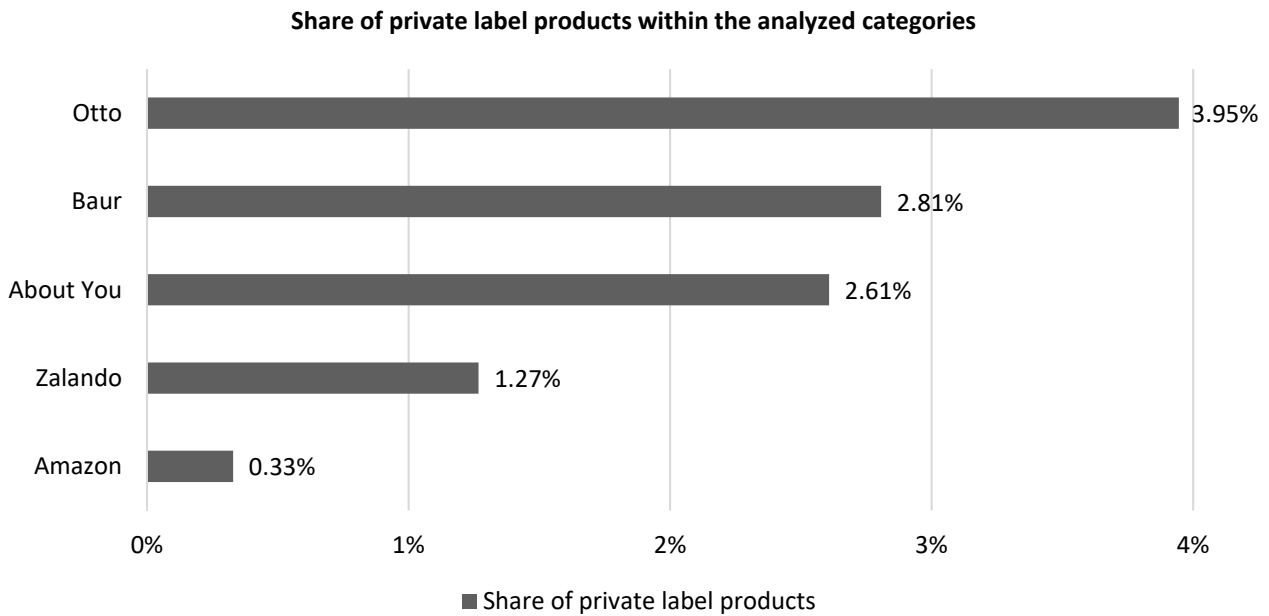
The number of private label articles offered by the retailers is rather heterogeneous. Within the analyzed categories, Amazon can only prove own brands in the section midi dresses. Nonetheless, the volume of own-brand midi dresses is relatively high and exceeds the respective total amount of own-brand items offered by the other three retailers in the categories examined. However, considering the assortment size of Amazon and the large variety of midi dresses offered, the share of the private label articles then again is quite small. Figure 12 shows the number of private label articles offered by each retailer.<sup>7</sup>



**Figure 12: Number of private label items offered within the analyzed categories**

In general, a relatively small proportion of private labels was found for all retailers within the respective categories considered – usually around 5% or slightly above per category. The highest registered share of private label articles has on the one hand Otto in the category bootcut jeans, where many items of its own denim brand Arizona are offered, as well as Baur in the category midi dresses. For both, the share of own brands in the mentioned categories is about 12%. The accumulated share of the counted private label articles in the total assortment breadth within the considered categories can be taken from the following Figure 13 for all retailers.

<sup>7</sup> A list of all the private labels offered by the analyzed retailers can be found in Appendix G.



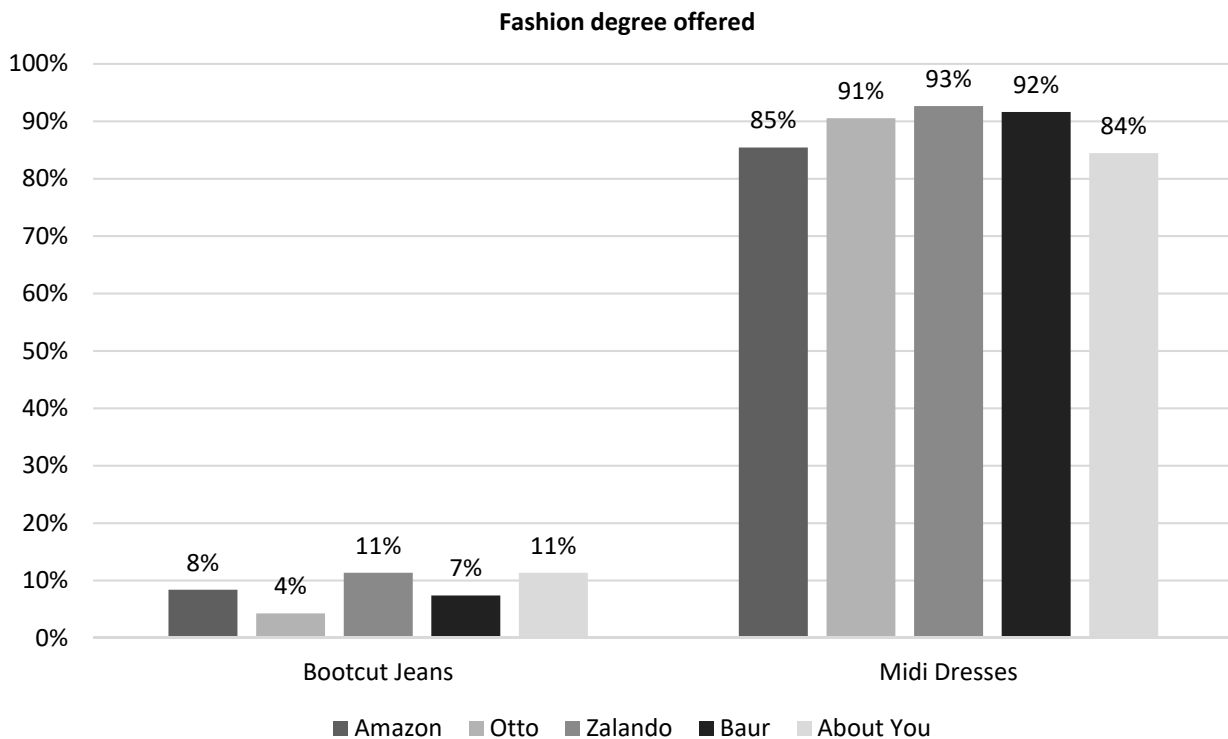
**Figure 13: Share of private label products within the analyzed categories**

The above figure clearly shows that Otto has the highest share of private label items within the considered categories. Although About You offers the second highest number of private label articles, Baur can demonstrate a higher share due to the narrower product range. As already mentioned, Amazon's private label products are drowning due to the large number of articles. This leads to a private label share of almost 0% and even Zalando, where the total number of private label items is the lowest, has a higher share within its assortment.

### **Basic and Fashion Merchandise**

In the literature, it is stated that basics can generally be seen as functional necessities. Therefore, leather skirts are excluded from the analysis as they are rather characterized as fashionable products. When it comes to jeans and dresses, basics are to be considered as plain articles without special details or cuts. In order to examine the characteristic, the number of basic and fashion items offered in the respective categories is evaluated for all retailers. The proportion of fashion-orientated products is then calculated.

In general, it can be said that the jeans category is characterized by basics. This is demonstrated by the fact that for jeans, a share of basics between 85-95% was evaluated for all retailers. On the contrary, the midi dress category is dominated by fashionable products. This fact is shown by Figure 14 which illustrates the fashion degrees calculated for the respective categories and retailers.



**Figure 14: Fashion degree offered**

In both categories, Zalando can show the highest fashion degree. Regarding bootcut jeans, About You also stands out for offering a relatively fashionable assortment whereas Otto offers the most basics. Within midi dresses, About You does not position itself as a fashionable provider as the lowest share of fashion product is found at the retailer. However, Zalando, Otto and Baur perform relatively similarly.

If looked at both categories together, the fashion degree at Amazon is proven to be lower than at the other retailers. This is significantly influenced by the relatively low fashion degree in the midi dress category, although Amazon does not stand out as a particularly fashionable supplier in the jeans sector either.

#### 4. Discussion

The empirical analysis showed that the German fashion e-commerce market is dominated by five retailers which offer much larger assortments than all the other providers. The market leaders would be Amazon, Otto, Zalando, Baur and About You. It is particularly important to mention that Amazon emerged as invincible in most of the considered criteria. The retailer does not only offer the largest, broadest and deepest assortment but also the lowest entry prices and average price as well as a high dispersion of prices. However, Amazon cannot fully convince regarding the fashion degree offered. In this criterion, Zalando particularly stands out.

Next to Amazon and Otto, Baur particularly stands out for its extremely broad and yet relatively deep product range. In principle, most of the surveyed retailer do not carry an outstanding large assortment. The median for assortment size in the analyzed sample is about 16,000 articles, whereas Amazon, on the contrary, carries several hundreds of millions of articles and the other market leaders hundreds of thousands. Vertical retailers such as Esprit, Ernsting's Family, Nike and Adidas have comparatively small and less deep assortments.

Almost all retailers try to appeal to different target groups by offering different product groups such as home furnishings, beauty products or decoration. Apart from Walbusch and Happy Size, there is no retailer who narrowly only focuses on fashion and does not offer his customers any additive purchasing options. As expected, Otto and Amazon offer the widest selection of different products. This is also due to the fact that they are seen as universal retailers with no clear focus on fashion. The offering of a certain width by all analyzed retailers is also due to the fact that there are no physical limitations online, that risk and costs are scaling and that the competitive pressure of course demands a certain offer.

Looking at the assortment dimensions on a micro level, Zalando does not offer great depth in the categories analyzed. Although in total many articles are available in several color options, the number is relativized again if set in relation to the complete assortment breadth. Therefore, the percentage of articles that are offered in various color options is rather small. Furthermore, it becomes clear that Amazon and About You have by far the largest average proportion of articles offered in depth, but both retailers also have clear outliers. Amazon offers a lot of articles in depth within the midi dress category and About You within the leather skirt category. In order to make a more precise assessment of whether About You and Amazon do offer more articles in depth than the other retailers, further categories would have to be analyzed.

Comparing the assortment size results of the macro analysis with those of the micro analysis, it is outstanding that Otto and Baur offer the smallest assortments on the micro level, although



on the macro level Otto has the second largest assortment after Amazon and Baur a larger product range than About You. This divergence can be explained by the assortment width of Otto as well as of Baur. On the macro level, both retailers offer a relatively wide assortment which of course counts into the total assortment size. On the micro level however, only fashion categories were analyzed. The analysis of assortment depth at the macro level looked at how many articles are offered by a retailer on average in his categories. Here About You can show a greater depth than Baur as well as Zalando a greater depth than Otto. These findings correspond to the assortment sizes at the micro level. Even though both Otto and Baur are large and broadly positioned, they offer less choice in individual aspects of their product range – as here in the fashion assortment – than competitors who are more specialized.

Regarding the micro level analysis, it should be mentioned that despite the exact delimitation of the analyzed article groups, it was nevertheless noticeable that the considered retailers interpret these differently. Zalando strongly restricts its categories and accurately assigns articles. On Amazon, however, as many articles as possible are displayed in one category, which leads to the fact that these are often inappropriately categorized, and the assortment appears to be even broader and deeper. The same observation was also made when looking for midi dresses at About You. The accuracy of the categorization affects the results for assortment size and assortment breadth at the micro level, where Amazon and About You in fact do show the strongest results. Furthermore, especially regarding the assortment depth on the micro level at Amazon, it must be said that – mostly noticed with marketplace providers – different articles are sometimes combined into one and appear as variants, so that at first glance it seems as if the article is offered in depth, when in fact, the variants are not other color choices but completely different styles. This phenomenon was particularly noticeable in the midi dress category and also explains the high number of average color options offered per style, displayed in Figure 5.

The analysis of the price levels of the market leaders has shown that all retailers try to offer different price segments. One reason for this might be that the dispersion of prices is affecting customers' mindsets and decision-making. Expensive articles influence the reference prices and make other articles appear comparatively cheaper. Additionally, another reason might be the targeting and attraction of different customer segments. Especially Zalando focuses strongly on covering entry-level price ranges as well as higher price levels which are still offered to a greater extent at Zalando than at other competitors. The good coverage of more expensive price ranges however leads to the fact that the assortment has the highest average price despite the well covered entry price ranges.

As already mentioned, the greatest price dispersion can be found at Amazon. The retailer offers both very cheap and expensive items. Nevertheless, a clear focus is laid on cheaply priced articles and the assortment of Amazon has the lowest average price. Around 50% of all articles within the analyzed categories cost between 0-30 euros. Despite the focus on entry price levels, Amazon also shows the strongest share of articles priced over 200 euro. However, it should be noted here that during the observations some enormously high-priced outliers were found which were identified as marketplace offers. In this case, Amazon might have no control over price positioning. As for example, the most expensive item within the midi dress category costs 15,400 euros.

A subject which is increasingly gaining importance is the offering of private labels. In the micro analysis, it was found that all the analyzed retailers offer more than one retail brand. The highest variety of private labels is offered by Otto. Accordingly, Otto also has the highest share of private label articles in its assortment. It is outstanding that Amazon does provide a large number of private label articles, but still does not have a high share of retail brand articles in the analyzed categories. Due to the high number of marketplace articles provided, the own articles easily submerge. Even though Amazon offers the highest number of private label articles, the share is nearly zero as such a large amount of other articles is offered. On the contrary, Zalando offers the least articles of own brands but still shows to have a higher share in the categories observed than at Amazon.

The results regarding the mix of basic and fashion merchandise show that in general, none of the retailers analyzed offers significantly more or less fashion items than its competitors. Zalando is the clear fashion leader in both categories, Amazon on the contrary performs rather inferior. Nevertheless, it should be mentioned that the fashion degree at Zalando is differently interpreted than at Otto or Baur, as different target groups are addressed. Of course, this fact was not taken into account during the analysis, as it was carried out objectively, but leads to the fact that in comparison to its competitors, Zalando might be perceived as much more fashionable by some customer groups, although the other retailers do not strikingly offer more basic items. It is furthermore not surprising that the fashion degree for dresses is by far higher than for jeans which are generally seen as basic pieces. Nevertheless, there is differentiation in this area as well, which is for example characterized by embroidered trousers, special cuts and lengths or specially processed seams.

## 5. Conclusion

This paper illuminated the topic of assortment policy in fashion e-commerce and sought to develop a system of characteristics based on literature for analyzing assortments on a strategic level. Accordingly, the central research questions were which criteria can be used to characterize assortments and how the assortments of leading online fashion retailers in Germany are structured according to these criteria.

Based on the existing literature, a system of characteristics for assortment analysis was created, which comprises two perspectives: The macro level, which analyzes assortments at store level, and the micro level, which considers articles within individual categories or departments. The following superordinate assortment characteristics could be assigned to the macro level: assortment structure, assortment size, assortment width, assortment depth as well as assortment consistency and rotation. The micro-level as well includes the assortment dimensions and the structure, but looks at them from a different perspective. Furthermore, the micro level deals with the price and quality level of assortments, the fashion degree and the brand mix in the sense of private and manufacturer labels.

In the empirical part, the leading online fashion retailers within the German market were quantitatively analyzed using structured observations. As a conclusion, it can be said that although Amazon has no clear focus on fashion, the retailer has a unique selling point in terms of assortment size and prices that is difficult for other competitors to attain. Nevertheless, the analysis has shown that in comparison to its competitors, Amazon is the least fashionable provider. In addition to Amazon, Otto, Zalando, Baur and About You stand out as strong fashion retailers in the German e-commerce market. This is mainly due to the size and breadth of the assortment on offer. Otto and Baur in particular are broadly positioned, however, offer a comparatively smaller clothing assortment. Between the five market participants, Zalando positions itself as a fashionable provider that covers a large price range. Both entry price ranges and high price ranges are strongly covered. In addition, the five market leaders are also distinguished by their range of private labels. In the conducted analysis, especially Otto was able to show a large proportion of own brands.

Part of the limitations of this paper lies in the circumstance that a cross-sectional study was carried out as well as that e-commerce assortments were examined. As a result, not all characteristics identified in the literature could be considered for the assortment analysis. Thus, the constructs assortment rotation, assortment consistency and quality mix of assortments remain unnoticed. Furthermore, within the macro analysis the total assortment

size of Amazon was only estimated. Within the individual categories, as mentioned in Chapter 3.1, only indicative values were taken for the total number of articles. Within the micro analysis, extrapolations were made in large categories in order to obtain an estimate. An accurate quantitative analysis of Amazon would have exceeded the timeframe of this work. In addition, there are further limitations within the micro analysis due to the exact restriction of the three contemplated categories, which are not based on the proportionality of the assortment, but on market circumstances and current relevance. As a result, the categories are not necessarily representative of the entire product range. Since the competitors surveyed are also very heterogeneous in terms of their structure, comparability is negatively affected. As already mentioned in the discussion, Zalando, for example, restricts its categories to a greater extent than Amazon and About You.

The limitations result in recommendations for future research. One implication would be that market participants are observed in their assortments over a period. This would allow the assortment rotation and consistency to be captured as well. Furthermore, the investigation should be given more time to get more accurate results. This would allow the categories of Amazon to be precisely counted and the total assortment size to be registered. In addition, within the categories incorrectly displayed articles could be excluded in order to record the actual offer within individual article groups and achieve comparable results for all competitors. For this, however, a homogenous system with definitions and delimitations for the exact allocation of articles would have to be established. Moreover, as many categories as possible should be considered within the micro analysis in order to reliably reproduce the situation of the entire assortment.

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**Appendix**

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## Appendix A: Ranking of the Top 50 Online Shops for Fashion and Shoes in Germany

Table A: Ranking of the top 50 online shops for fashion and shoes in Germany

Ranking	Company	URL
1	Zalando	<a href="http://www.zalando.de">www.zalando.de</a>
2	Bonprix	<a href="http://www.bonprix.de">www.bonprix.de</a>
3	H&M	<a href="http://www.hm.com/de/">www.hm.com/de/</a>
4	BAUR	<a href="http://www.baur.de">www.baur.de</a>
5	Esprit	<a href="http://www.esprit.de">www.esprit.de</a>
6	About You	<a href="http://www.About You.de">www.About You.de</a>
7	Breuninger	<a href="http://www.breuninger.com">www.breuninger.com</a>
8	S.Oliver	<a href="http://www.soliver.de">www.soliver.de</a>
9	Asos	<a href="http://www.asos.de">www.asos.de</a>
10	Heine	<a href="http://www.heine.de">www.heine.de</a>
11	Zalando SE	<a href="http://www.zalando-lounge.de">www.zalando-lounge.de</a>
12	Witt-Weiden	<a href="http://www.witt-weiden.de">www.witt-weiden.de</a>
13	Happy Size	<a href="http://www.happy-size.de">www.happy-size.de</a>
14	Adidas	<a href="http://www.adidas.de">www.adidas.de</a>
15	C&A	<a href="http://www.c-and-a.com/de/de/shop">www.c-and-a.com/de/de/shop</a>
16	Peter Hahn	<a href="http://www.peterhahn.de">www.peterhahn.de</a>
17	Best Secret GmbH	<a href="http://www.bestsecret.com">www.bestsecret.com</a>
18	Walbusch	<a href="http://www.walbusch.de">www.walbusch.de</a>
19	Zara	<a href="http://www.zara.com/de/">www.zara.com/de/</a>
20	Nike	<a href="http://www.nike.com/de/de_de/">www.nike.com/de/de_de/</a>
21	Ernsting's Family	<a href="http://www.ernstings-family.de">www.ernstings-family.de</a>
22	EMP	<a href="http://www.emp.de">www.emp.de</a>
23	MyTheresa	<a href="http://www.mytheresa.com/de-de/">www.mytheresa.com/de-de/</a>
24	Engelhorn	<a href="http://www.engelhorn.de">www.engelhorn.de</a>

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Ranking	Company	URL
25	Alba Moda GmbH	<a href="http://www.albamoda.de">www.albamoda.de</a>
26	Madeleine Mode GmbH	<a href="http://www.madeleine.de">www.madeleine.de</a>
27	Schwab Versand GmbH	<a href="http://www.sheego.de">www.sheego.de</a>
28	K - Mail Order GmbH & Co. KG	<a href="http://www.wenz.de">www.wenz.de</a>
29	Deichmann SE	<a href="http://www.deichmann.com/DE/de/shop/">www.deichmann.com/DE/de/shop/</a>
30	myToys.de GmbH	<a href="http://www.mirapodo.de">www.mirapodo.de</a>
31	dress-for-less GmbH	<a href="http://www.dress-for-less.de">www.dress-for-less.de</a>
32	DefShop GmbH	<a href="http://www.def-shop.com">www.def-shop.com</a>
33	Fashion ID GmbH & Co. KG	<a href="http://www.peek-cloppenburg.de">www.peek-cloppenburg.de</a>
34	TOM TAILOR E-Commerce GmbH	<a href="http://www.tom-tailor.de">www.tom-tailor.de</a>
35	Sieh an! GmbH	<a href="http://www.sieh-an.de">www.sieh-an.de</a>
36	Outlet46.de GmbH	<a href="http://www.outlet46.de">www.outlet46.de</a>
37	J. P. Boden & Co. Ltd.	<a href="http://www.bodendirect.de">www.bodendirect.de</a>
38	engelbert strauss GmbH & Co. KG	<a href="http://www.engelbert-strauss.de">www.engelbert-strauss.de</a>
39	FootLocker Europe.com B.V.	<a href="http://www.footlocker.de">www.footlocker.de</a>
40	KiK Textilien und Non-Food GmbH	<a href="http://www.kik.de">www.kik.de</a>
41	Hess Natur-Textilien GmbH	<a href="http://www.hessnatur.com/de/">www.hessnatur.com/de/</a>
42	Qwertee Ltd.	<a href="http://www.qwertee.com">www.qwertee.com</a>
43	Baur Versand GmbH & Co KG	<a href="http://www.imwalking.de">www.imwalking.de</a>
44	CBR eCommerce GmbH	<a href="http://www.street-one.de">www.street-one.de</a>
45	Styleboom Textilhandels GmbH & Co. KG	<a href="http://www.77onlineshop.de">www.77onlineshop.de</a>
46	CBR eCommerce GmbH	<a href="http://www.cecil.de">www.cecil.de</a>
47	YOOX Net-A-Porter Group S.p.A.	<a href="http://www.yoox.com/de">www.yoox.com/de</a>
48	The Net-A-Porter Group Ltd.	<a href="http://www.net-a-porter.com/de/de/">www.net-a-porter.com/de/de/</a>
49	Görtz Retail GmbH	<a href="http://www.goertz.de">www.goertz.de</a>
50	AFH FULFILLMENT NL B.V.	<a href="http://www.hollisterco.com/shop/eu-de">www.hollisterco.com/shop/eu-de</a>

Based on: (Langenberg et al., 2018)



## Appendix B: Final Sample for the Empirical Analysis

Table B: Sample for the empirical analysis

<b>Retailer</b>	<b>URL</b>
Zalando	<a href="http://www.zalando.de">www.zalando.de</a>
Bonprix	<a href="http://www.bonprix.de">www.bonprix.de</a>
Otto	<a href="http://www.otto.de">www.otto.de</a>
Amazon	<a href="http://www.amazon.de">www.amazon.de</a>
H&M	<a href="http://www.hm.com/de/">www.hm.com/de/</a>
BAUR	<a href="http://www.baur.de">www.baur.de</a>
Esprit	<a href="http://www.esprit.de">www.esprit.de</a>
About You	<a href="http://www.aboutyou.de">www.aboutyou.de</a>
Breuninger	<a href="http://www.breuninger.com">www.breuninger.com</a>
S.Oliver	<a href="http://www.soliver.de">www.soliver.de</a>
Asos	<a href="http://www.asos.de">www.asos.de</a>
Heine	<a href="http://www.heine.de">www.heine.de</a>
Witt-Weiden	<a href="http://www.witt-weiden.de">www.witt-weiden.de</a>
Happy Size	<a href="http://www.happy-size.de">www.happy-size.de</a>
Adidas	<a href="http://www.adidas.de">www.adidas.de</a>
C&A	<a href="http://www.c-and-a.com/de/de/shop">www.c-and-a.com/de/de/shop</a>
Peter Hahn	<a href="http://www.peterhahn.de">www.peterhahn.de</a>
Walbusch	<a href="http://www.walbusch.de">www.walbusch.de</a>
Zara	<a href="http://www.zara.com/de/">www.zara.com/de/</a>
Nike	<a href="http://www.nike.com/de/de_de/">www.nike.com/de/de_de/</a>
Ernsting's Family	<a href="http://www.ernstings-family.de">www.ernstings-family.de</a>
EMP	<a href="http://www.emp.de">www.emp.de</a>

## Appendix C: Category System Macro Analysis

Table C: Category system for the macro analysis

Category	Beauty	Electronic Goods	Fashion			Home	Sports	
Subcategory			Accessories	Clothing	Shoes		Activewear	Sports Equipment
Example	Make-up, body and hair care, fragrances	Multimedia devices	Bags, scarfs, gloves, caps, jewelry	Casualwear, swimwear, nightwear, lingerie	Sneakers, boots	Furniture, decoration, kitchen equipment	Sports bras, running tights	Ski glasses, fitness equipment, rackets, helmets

## Appendix D: Data Base Macro Analysis

Table D: Data base macro analysis

Shopname	Gender	Categories	Number of Articles	Ranking
About You	Women	Apparel	71,879	6
About You	Women	Shoes	19,595	6
About You	Women	Accessories	22,886	6
About You	Neutral	Home	32	6
About You	Women	Activewear	11,975	6
About You	Women	Sports Equipment	1,097	6
About You	Men	Accessories	7,856	6
About You	Men	Shoes	7,404	6
About You	Men	Apparel	25,931	6
About You	Men	Activewear	6,427	6
About You	Men	Sports Equipment	644	6
About You	Kids	Shoes	2,974	6
About You	Kids	Apparel	17,708	6
About You	Kids	Activewear	3,668	6
About You	Kids	Sports Equipment	27	6
About You	Kids	Accessories	3,349	6
Adidas	Women	Shoes	1,124	14
Adidas	Women	Apparel	424	14
Adidas	Women	Activewear	609	14
Adidas	Women	Accessories	380	14
Adidas	Women	Sports Equipment	202	14
Adidas	Men	Shoes	1,251	14
Adidas	Men	Apparel	596	14
Adidas	Men	Activewear	1,052	14
Adidas	Men	Accessories	358	14
Adidas	Men	Sports Equipment	224	14
Adidas	Kids	Shoes	441	14
Adidas	Kids	Activewear	323	14
Adidas	Kids	Apparel	303	14
Adidas	Kids	Sports Equipment	11	14
Adidas	Kids	Accessories	26	14
Amazon	Women	Apparel	265,984	4
Amazon	Women	Activewear	70,000	4
Amazon	Women	Accessories	250,000	4
Amazon	Women	Shoes	80,000	4
Amazon	Neutral	Beauty	360,000	4
Amazon	Men	Shoes	70,000	4
Amazon	Men	Accessories	150,000	4
Amazon	Men	Apparel	167,648	4
Amazon	Men	Activewear	80,000	4
Amazon	Kids	Shoes	100,000	4

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Shopname	Gender	Categories	Number of Articles	Ranking
Amazon	Kids	Accessories	30,000	4
Amazon	Kids	Apparel	76,896	4
Asos	Women	Shoes	2,972	9
Asos	Women	Activewear	818	9
Asos	Women	Beauty	3,124	9
Asos	Neutral	Home	555	9
Asos	Women	Accessories	4,281	9
Asos	Women	Apparel	27,996	9
Asos	Neutral	Electronic Goods	160	9
Asos	Neutral	Others	698	9
Asos	Men	Shoes	2,487	9
Asos	Men	Beauty	2,831	9
Asos	Men	Activewear	1,433	9
Asos	Men	Accessories	3,585	9
Asos	Men	Apparel	18,908	9
Baur	Neutral	Home	98,267	4
Baur	Women	Shoes	8,705	4
Baur	Women	Beauty	1,468	4
Baur	Women	Accessories	28,980	4
Baur	Women	Apparel	46,593	4
Baur	Women	Activewear	3,789	4
Baur	Neutral	Electronic Goods	26,484	4
Baur	Neutral	Sports Equipment	12,332	4
Baur	Neutral	Others	52,331	4
Baur	Men	Activewear	4,271	4
Baur	Men	Apparel	23,715	4
Baur	Men	Shoes	4,187	4
Baur	Men	Beauty	505	4
Baur	Men	Accessories	7,852	4
Baur	Kids	Shoes	1,495	4
Baur	Kids	Accessories	1,269	4
Baur	Kids	Apparel	6,123	4
Bonprix	Women	Activewear	219	2
Bonprix	Women	Accessories	658	2
Bonprix	Women	Apparel	5,708	2
Bonprix	Women	Shoes	620	2
Bonprix	Neutral	Home	1,724	2
Bonprix	Men	Apparel	744	2
Bonprix	Men	Activewear	43	2
Bonprix	Men	Accessories	13	2
Bonprix	Men	Shoes	52	2
Bonprix	Kids	Apparel	648	2
Bonprix	Kids	Activewear	45	2
Bonprix	Kids	Accessories	15	2
Bonprix	Kids	Shoes	89	2

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Shopname	Gender	Categories	Number of Articles	Ranking
Breuninger	Women	Apparel	18,918	7
Breuninger	Women	Activewear	3,866	7
Breuninger	Women	Shoes	2,880	7
Breuninger	Women	Beauty	6,806	7
Breuninger	Women	Sports Equipment	225	7
Breuninger	Women	Accessories	3,007	7
Breuninger	Men	Shoes	874	7
Breuninger	Men	Accessories	1,769	7
Breuninger	Men	Beauty	1,525	7
Breuninger	Men	Activewear	1,761	7
Breuninger	Men	Apparel	8,084	7
Breuninger	Men	Sports Equipment	203	7
Breuninger	Kids	Shoes	228	7
Breuninger	Kids	Accessories	162	7
Breuninger	Kids	Activewear	371	7
Breuninger	Kids	Sports Equipment	18	7
Breuninger	Kids	Apparel	2,293	7
C&A	Women	Apparel	3,169	15
C&A	Women	Activewear	86	15
C&A	Women	Accessories	343	15
C&A	Women	Beauty	8	15
C&A	Men	Apparel	2,475	15
C&A	Men	Activewear	36	15
C&A	Men	Beauty	8	15
C&A	Men	Accessories	166	15
C&A	Kids	Apparel	3,286	15
C&A	Kids	Accessories	584	15
C&A	Kids	Activewear	39	15
C&A	Kids	Shoes	21	15
C&A	Neutral	Home	181	15
EMP	Women	Shoes	342	22
EMP	Women	Activewear	98	22
EMP	Women	Apparel	5,178	22
EMP	Women	Accessories	890	22
EMP	Neutral	Home	1,813	22
EMP	Neutral	Others	750	22
EMP	Men	Apparel	4,731	22
EMP	Men	Shoes	286	22
EMP	Men	Activewear	125	22
EMP	Men	Accessories	1,652	22
Ernsting's Family	Women	Apparel	831	21
Ernsting's Family	Women	Shoes	41	21
Ernsting's Family	Women	Accessories	322	21
Ernsting's Family	Women	Activewear	20	21
Ernsting's Family	Men	Apparel	73	21



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Shopname	Gender	Categories	Number of Articles	Ranking
<b>Ernsting's Family</b>	Kids	Apparel	508	21
<b>Ernsting's Family</b>	Kids	Accessories	84	21
<b>Ernsting's Family</b>	Kids	Shoes	33	21
<b>Ernsting's Family</b>	Kids	Others	217	21
<b>Ernsting's Family</b>	Neutral	Home	249	21
<b>Esprit</b>	Neutral	Home	421	5
<b>Esprit</b>	Women	Activewear	98	5
<b>Esprit</b>	Women	Apparel	2,520	5
<b>Esprit</b>	Women	Shoes	122	5
<b>Esprit</b>	Women	Accessories	832	5
<b>Esprit</b>	Women	Beauty	6	5
<b>Esprit</b>	Men	Shoes	20	5
<b>Esprit</b>	Men	Beauty	5	5
<b>Esprit</b>	Men	Accessories	223	5
<b>Esprit</b>	Men	Apparel	613	5
<b>Esprit</b>	Kids	Apparel	694	5
<b>Esprit</b>	Kids	Shoes	14	5
<b>Esprit</b>	Kids	Accessories	48	5
<b>H&amp;M</b>	Neutral	Home	2,564	3
<b>H&amp;M</b>	Women	Apparel	7,495	3
<b>H&amp;M</b>	Women	Activewear	238	3
<b>H&amp;M</b>	Women	Shoes	273	3
<b>H&amp;M</b>	Women	Accessories	846	3
<b>H&amp;M</b>	Women	Beauty	751	3
<b>H&amp;M</b>	Men	Apparel	1,510	3
<b>H&amp;M</b>	Men	Activewear	124	3
<b>H&amp;M</b>	Men	Accessories	319	3
<b>H&amp;M</b>	Men	Shoes	142	3
<b>H&amp;M</b>	Kids	Shoes	419	3
<b>H&amp;M</b>	Kids	Apparel	5,054	3
<b>H&amp;M</b>	Kids	Activewear	132	3
<b>H&amp;M</b>	Kids	Accessories	1,120	3
<b>Happy Size</b>	Women	Activewear	797	13
<b>Happy Size</b>	Women	Shoes	14,555	13
<b>Happy Size</b>	Women	Apparel	7,174	13
<b>Happy Size</b>	Women	Accessories	1,913	13
<b>Happy Size</b>	Men	Activewear	592	13
<b>Happy Size</b>	Men	Shoes	4,388	13
<b>Happy Size</b>	Men	Apparel	4,410	13
<b>Happy Size</b>	Men	Accessories	201	13
<b>Heine</b>	Women	Apparel	8,700	10
<b>Heine</b>	Women	Shoes	2,730	10
<b>Heine</b>	Women	Accessories	1,448	10
<b>Heine</b>	Neutral	Home	3,904	10
<b>Heine</b>	Neutral	Electronic Goods	35	10

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Shopname	Gender	Categories	Number of Articles	Ranking
Nike	Men	Shoes	884	20
Nike	Men	Activewear	1,392	20
Nike	Men	Apparel	1,074	20
Nike	Men	Sports Equipment	228	20
Nike	Men	Accessories	246	20
Nike	Women	Shoes	604	20
Nike	Women	Activewear	708	20
Nike	Women	Apparel	311	20
Nike	Women	Accessories	215	20
Nike	Women	Sports Equipment	180	20
Nike	Kids	Shoes	522	20
Nike	Kids	Apparel	193	20
Nike	Kids	Activewear	580	20
Nike	Kids	Sports Equipment	31	20
Nike	Kids	Accessories	39	20
Otto	Women	Activewear	6,439	2
Otto	Women	Apparel	90,758	2
Otto	Women	Accessories	52,008	2
Otto	Women	Shoes	30,610	2
Otto	Men	Apparel	46,732	2
Otto	Men	Shoes	10,814	2
Otto	Men	Activewear	6,264	2
Otto	Men	Accessories	16,563	2
Otto	Kids	Apparel	14,778	2
Otto	Kids	Activewear	3,433	2
Otto	Kids	Shoes	5,388	2
Otto	Kids	Accessories	4,763	2
Otto	Women	Beauty	4,541	2
Otto	Men	Beauty	1,945	2
Otto	Kids	Others	31,589	2
Otto	Neutral	Sports Equipment	15,131	2
Otto	Neutral	Others	60,919	2
Otto	Neutral	Electronic Goods	19,032	2
Otto	Neutral	Home	132,350	2
Peter Hahn	Neutral	Home	462	16
Peter Hahn	Men	Accessories	13	16
Peter Hahn	Men	Shoes	32	16
Peter Hahn	Men	Apparel	466	16
Peter Hahn	Women	Apparel	5,250	16
Peter Hahn	Women	Shoes	1,141	16
Peter Hahn	Women	Accessories	359	16
S.Oliver	Women	Activewear	108	8
S.Oliver	Women	Apparel	6,114	8
S.Oliver	Women	Shoes	459	8
S.Oliver	Women	Accessories	1,409	8

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Shopname	Gender	Categories	Number of Articles	Ranking
S.Oliver	Women	Beauty	36	8
S.Oliver	Men	Shoes	125	8
S.Oliver	Men	Accessories	497	8
S.Oliver	Men	Beauty	39	8
S.Oliver	Men	Activewear	11	8
S.Oliver	Men	Apparel	1,713	8
S.Oliver	Kids	Home	18	8
S.Oliver	Kids	Apparel	4,372	8
S.Oliver	Kids	Accessories	877	8
S.Oliver	Kids	Shoes	110	8
Walbusch	Women	Shoes	134	18
Walbusch	Women	Accessories	124	18
Walbusch	Women	Apparel	817	18
Walbusch	Men	Shoes	286	18
Walbusch	Men	Accessories	167	18
Walbusch	Neutral			18
Walbusch	Men	Apparel	2,443	18
Witt-Weiden	Women	Apparel	7,124	12
Witt-Weiden	Women	Shoes	252	12
Witt-Weiden	Women	Accessories	512	12
Witt-Weiden	Women	Beauty	5	12
Witt-Weiden	Women	Others	114	12
Witt-Weiden	Men	Apparel	1,079	12
Witt-Weiden	Men	Shoes	37	12
Witt-Weiden	Men	Accessories	11	12
Witt-Weiden	Neutral	Others	202	12
Witt-Weiden	Neutral	Home	515	12
Zalando	Men	Others	166	1
Zalando	Women	Others	106	1
Zalando	Women	Apparel	149,258	1
Zalando	Women	Activewear	12,523	1
Zalando	Women	Sports Equipment	887	1
Zalando	Women	Shoes	47,478	1
Zalando	Women	Accessories	35,817	1
Zalando	Women	Beauty	8,196	1
Zalando	Men	Apparel	71,151	1
Zalando	Men	Activewear	12,673	1
Zalando	Men	Sports Equipment	1,130	1
Zalando	Men	Shoes	20,710	1
Zalando	Men	Accessories	15,787	1
Zalando	Men	Beauty	1,281	1
Zalando	Kids	Apparel	36,055	1
Zalando	Kids	Activewear	4,411	1
Zalando	Kids	Sports Equipment	106	1
Zalando	Kids	Shoes	11,018	1

Assortments in Fashion E-Commerce  
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Shopname	Gender	Categories	Number of Articles	Ranking
Zalando	Kids	Accessories	2,269	1
Zara	Women	Shoes	498	19
Zara	Women	Accessories	741	19
Zara	Women	Beauty	99	19
Zara	Women	Apparel	6,155	19
Zara	Neutral	Home	6	19
Zara	Men	Shoes	222	19
Zara	Men	Accessories	615	19
Zara	Men	Apparel	4,062	19
Zara	Men	Beauty	77	19
Zara	Kids	Shoes	424	19
Zara	Kids	Apparel	2,600	19
Zara	Kids	Accessories	545	19
Zara	Kids	Beauty	53	19

## Appendix E: Assortment Sizes of the Analyzed Sample Within the Macro Analysis

Table E: Assortment size on the macro level

Retailer	Assortment Size
Amazon	400,000,000
Otto	554,057
Zalando	431,022
Baur	328,366
About You	203,452
Asos	69,848
Breuninger	52,990
Happy Size	34,030
H&M	20,987
Heine	16,817
Zara	16,097
S.Oliver	15,888
EMP	15,865
Bonprix	10,578
C&A	10,402
Witt-Weiden	9,851
Peter Hahn	7,732
Adidas	7,324
Nike	7,207
Esprit	5,616
Walbusch	3,971
Ernsting's Family	2,378

## Appendix F: Data Base Micro Analysis

Table F: Data base micro analysis

Retailer	Category	Element	Description of element	Result
<b>About You</b>	Midi Dresses	Size	Size	1,850
<b>About You</b>	Midi Dresses	Depth	Variants	562
<b>About You</b>	Midi Dresses	Depth	Articles with variants	256
<b>About You</b>	Midi Dresses	Breadth	Number of Articles	1,544
<b>About You</b>	Midi Dresses	Price	Lowest Price	19.90 €
<b>About You</b>	Midi Dresses	Price	Highest Price	429 €
<b>About You</b>	Midi Dresses	Price	Total Price	162,897.58 €
<b>About You</b>	Midi Dresses	Price	Average Price	87.25 €
<b>About You</b>	Midi Dresses	Price Range	0-30 euros	103
<b>About You</b>	Midi Dresses	Price Range	31-50 euros	559
<b>About You</b>	Midi Dresses	Price Range	51-80 euros	434
<b>About You</b>	Midi Dresses	Price Range	81-100 euros	301
<b>About You</b>	Midi Dresses	Price Range	101-150 euros	216
<b>About You</b>	Midi Dresses	Price Range	151-200 euros	135
<b>About You</b>	Midi Dresses	Price Range	>200 euros	64
<b>About You</b>	Midi Dresses	Retail Brands	Number of Articles	47
<b>About You</b>	Midi Dresses	Basic Fashion Mix	Number of Fashionable Pieces	1,737
<b>About You</b>	Midi Dresses	Basic Fashion Mix	Number of Basics	320
<b>About You</b>	Bootcut Jeans	Size	Size	206
<b>About You</b>	Bootcut Jeans	Depth	Variants	110
<b>About You</b>	Bootcut Jeans	Depth	Articles with variants	44
<b>About You</b>	Bootcut Jeans	Breadth	Number of Articles	140
<b>About You</b>	Bootcut Jeans	Price	Lowest Price	26.90 €
<b>About You</b>	Bootcut Jeans	Price	Highest Price	185 €
<b>About You</b>	Bootcut Jeans	Price Range	0-30 euros	6
<b>About You</b>	Bootcut Jeans	Price Range	31-50 euros	71
<b>About You</b>	Bootcut Jeans	Price Range	51-80 euros	114
<b>About You</b>	Bootcut Jeans	Price Range	81-100 euros	17
<b>About You</b>	Bootcut Jeans	Price Range	101-150 euros	17
<b>About You</b>	Bootcut Jeans	Price Range	151-200 euros	1
<b>About You</b>	Bootcut Jeans	Price Range	>200 euros	2
<b>About You</b>	Bootcut Jeans	Price	Total Price	14,406.81 €
<b>About You</b>	Bootcut Jeans	Price	Average Price	66.70 €
<b>About You</b>	Bootcut Jeans	Retail Brands	Number of Articles	4
<b>About You</b>	Bootcut Jeans	Basic Fashion Mix	Number of Fashionable Pieces	26
<b>About You</b>	Bootcut Jeans	Basic Fashion Mix	Number of Basics	203
<b>About You</b>	Leather Skirts	Size	Size	53
<b>About You</b>	Leather Skirts	Breadth	Number of Articles	28
<b>About You</b>	Leather Skirts	Depth	Variants	37
<b>About You</b>	Leather Skirts	Depth	Articles with variants	12
<b>About You</b>	Leather Skirts	Price	Lowest Price	29.90 €

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<b>Retailer</b>	<b>Category</b>	<b>Element</b>	<b>Description of element</b>	<b>Result</b>
<b>About You</b>	Leather Skirts	Price	Highest Price	699 €
<b>About You</b>	Leather Skirts	Price	Total Price	8,147.95 €
<b>About You</b>	Leather Skirts	Price	Average Price	123.45 €
<b>About You</b>	Leather Skirts	Price Range	0-30 euros	2
<b>About You</b>	Leather Skirts	Price Range	31-50 euros	1
<b>About You</b>	Leather Skirts	Price Range	51-80 euros	7
<b>About You</b>	Leather Skirts	Price Range	81-100 euros	5
<b>About You</b>	Leather Skirts	Price Range	101-150 euros	16
<b>About You</b>	Leather Skirts	Price Range	151-200 euros	12
<b>About You</b>	Leather Skirts	Price Range	>200 euros	10
<b>About You</b>	Leather Skirts	Retail Brands	Number of Articles	4
<b>Amazon</b>	Bootcut Jeans	Size	Size	780
<b>Amazon</b>	Bootcut Jeans	Breadth	Number of Articles	400
<b>Amazon</b>	Bootcut Jeans	Depth	Variants	481.00
<b>Amazon</b>	Bootcut Jeans	Depth	Articles with variants	120.00
<b>Amazon</b>	Bootcut Jeans	Price	Lowest Price	8 €
<b>Amazon</b>	Bootcut Jeans	Price	Highest Price	2,699 €
<b>Amazon</b>	Bootcut Jeans	Price	Total Price	13,171.88 €
<b>Amazon</b>	Bootcut Jeans	Price	Average Price	59.07 €
<b>Amazon</b>	Bootcut Jeans	Price Range	0-30 euros	155
<b>Amazon</b>	Bootcut Jeans	Price Range	31-50 euros	254
<b>Amazon</b>	Bootcut Jeans	Price Range	51-80 euros	128
<b>Amazon</b>	Bootcut Jeans	Price Range	81-100 euros	103
<b>Amazon</b>	Bootcut Jeans	Price Range	101-150 euros	58
<b>Amazon</b>	Bootcut Jeans	Price Range	151-200 euros	21
<b>Amazon</b>	Bootcut Jeans	Price Range	>200 euros	11
<b>Amazon</b>	Bootcut Jeans	Retail Brands	Number of Articles	0
<b>Amazon</b>	Bootcut Jeans	Basic Fashion Mix	Number of Fashionable Pieces	77
<b>Amazon</b>	Bootcut Jeans	Basic Fashion Mix	Number of Basics	840
<b>Amazon</b>	Leather Skirts	Size	Size	452
<b>Amazon</b>	Leather Skirts	Breadth	Number of Articles	270
<b>Amazon</b>	Leather Skirts	Depth	Variants	235
<b>Amazon</b>	Leather Skirts	Depth	Articles with variants	53
<b>Amazon</b>	Leather Skirts	Price	Lowest Price	1.01 €
<b>Amazon</b>	Leather Skirts	Price	Highest Price	697 €
<b>Amazon</b>	Leather Skirts	Price	Total Price	13,639.80 €
<b>Amazon</b>	Leather Skirts	Price	Average Price	51.47 €
<b>Amazon</b>	Leather Skirts	Price Range	0-30 euros	103
<b>Amazon</b>	Leather Skirts	Price Range	31-50 euros	39
<b>Amazon</b>	Leather Skirts	Price Range	51-80 euros	31
<b>Amazon</b>	Leather Skirts	Price Range	81-100 euros	33
<b>Amazon</b>	Leather Skirts	Price Range	101-150 euros	43
<b>Amazon</b>	Leather Skirts	Price Range	151-200 euros	18
<b>Amazon</b>	Leather Skirts	Price Range	>200 euros	19
<b>Amazon</b>	Leather Skirts	Retail Brands	Number of Articles	0

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<b>Retailer</b>	<b>Category</b>	<b>Element</b>	<b>Description of element</b>	<b>Result</b>
<b>Amazon</b>	Midi Dresses	Size	Size	421,875
<b>Amazon</b>	Midi Dresses	Depth	Variants	416,042
<b>Amazon</b>	Midi Dresses	Depth	Articles with variants	44,167
<b>Amazon</b>	Midi Dresses	Breadth	Number of Articles	50,000
<b>Amazon</b>	Midi Dresses	Price	Lowest Price	4.49 €
<b>Amazon</b>	Midi Dresses	Price	Highest Price	15,400 €
<b>Amazon</b>	Midi Dresses	Price	Total Price	7,530.64 €
<b>Amazon</b>	Midi Dresses	Price	Average Price	31.91 €
<b>Amazon</b>	Midi Dresses	Price Range	0-30 euros	4,000
<b>Amazon</b>	Midi Dresses	Price Range	31-50 euros	968
<b>Amazon</b>	Midi Dresses	Price Range	51-80 euros	735
<b>Amazon</b>	Midi Dresses	Price Range	81-100 euros	305
<b>Amazon</b>	Midi Dresses	Price Range	101-150 euros	266
<b>Amazon</b>	Midi Dresses	Price Range	151-200 euros	114
<b>Amazon</b>	Midi Dresses	Price Range	>200 euros	1,000
<b>Amazon</b>	Midi Dresses	Retail Brands	Number of Articles	167
<b>Amazon</b>	Midi Dresses	Basic Fashion Mix	Number of Fashionable Pieces	42,708
<b>Amazon</b>	Midi Dresses	Basic Fashion Mix	Number of Basics	7,292
<b>Baur</b>	Midi Dresses	Size	Size	368
<b>Baur</b>	Midi Dresses	Depth	Variants	93
<b>Baur</b>	Midi Dresses	Depth	Articles with variants	39
<b>Baur</b>	Midi Dresses	Breadth	Number of Articles	314
<b>Baur</b>	Midi Dresses	Price	Lowest Price	26.99 €
<b>Baur</b>	Midi Dresses	Price	Highest Price	249.90 €
<b>Baur</b>	Midi Dresses	Price	Total Price	30,942.57 €
<b>Baur</b>	Midi Dresses	Price	Average Price	84.08 €
<b>Baur</b>	Midi Dresses	Price Range	0-30 euros	6
<b>Baur</b>	Midi Dresses	Price Range	31-50 euros	54
<b>Baur</b>	Midi Dresses	Price Range	51-80 euros	86
<b>Baur</b>	Midi Dresses	Price Range	81-100 euros	99
<b>Baur</b>	Midi Dresses	Price Range	101-150 euros	149
<b>Baur</b>	Midi Dresses	Price Range	151-200 euros	31
<b>Baur</b>	Midi Dresses	Price Range	>200 euros	9
<b>Baur</b>	Midi Dresses	Retail Brands	Number of Articles	11
<b>Baur</b>	Midi Dresses	Basic Fashion Mix	Number of Fashionable Pieces	284
<b>Baur</b>	Midi Dresses	Basic Fashion Mix	Number of Basics	26
<b>Baur</b>	Bootcut Jeans	Size	Size	315
<b>Baur</b>	Bootcut Jeans	Depth	Variants	173
<b>Baur</b>	Bootcut Jeans	Depth	Articles with variants	58
<b>Baur</b>	Bootcut Jeans	Breadth	Number of Articles	200
<b>Baur</b>	Bootcut Jeans	Price	Lowest Price	19.99 €
<b>Baur</b>	Bootcut Jeans	Price	Highest Price	250 €
<b>Baur</b>	Bootcut Jeans	Price	Total Price	13,798.06 €
<b>Baur</b>	Bootcut Jeans	Price	Average Price	68.99 €
<b>Baur</b>	Bootcut Jeans	Price Range	0-30 euros	13



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<b>Retailer</b>	<b>Category</b>	<b>Element</b>	<b>Description of element</b>	<b>Result</b>
<b>Baur</b>	Bootcut Jeans	Price Range	31-50 euros	74
<b>Baur</b>	Bootcut Jeans	Price Range	51-80 euros	68
<b>Baur</b>	Bootcut Jeans	Price Range	81-100 euros	43
<b>Baur</b>	Bootcut Jeans	Price Range	101-150 euros	8
<b>Baur</b>	Bootcut Jeans	Price Range	151-200 euros	3
<b>Baur</b>	Bootcut Jeans	Price Range	>200 euros	1
<b>Baur</b>	Bootcut Jeans	Retail Brands	Number of Articles	5
<b>Baur</b>	Bootcut Jeans	Basic Fashion Mix	Number of Fashionable Pieces	15
<b>Baur</b>	Bootcut Jeans	Basic Fashion Mix	Number of Basics	188
<b>Baur</b>	Leather Skirts	Size	Size	64
<b>Baur</b>	Leather Skirts	Breadth	Number of Articles	56
<b>Baur</b>	Leather Skirts	Depth	Variants	16
<b>Baur</b>	Leather Skirts	Depth	Articles with variants	8
<b>Baur</b>	Leather Skirts	Price	Lowest Price	29.99 €
<b>Baur</b>	Leather Skirts	Price	Highest Price	209 €
<b>Baur</b>	Leather Skirts	Price	Total Price	4,841.80 €
<b>Baur</b>	Leather Skirts	Price	Average Price	75.65 €
<b>Baur</b>	Leather Skirts	Price Range	0-30 euros	2
<b>Baur</b>	Leather Skirts	Price Range	31-50 euros	23
<b>Baur</b>	Leather Skirts	Price Range	51-80 euros	18
<b>Baur</b>	Leather Skirts	Price Range	81-100 euros	8
<b>Baur</b>	Leather Skirts	Price Range	101-150 euros	4
<b>Baur</b>	Leather Skirts	Price Range	151-200 euros	7
<b>Baur</b>	Leather Skirts	Price Range	>200 euros	1
<b>Baur</b>	Leather Skirts	Retail Brands	Number of Articles	0
<b>Otto</b>	Midi Dresses	Size	Size	473
<b>Otto</b>	Midi Dresses	Depth	Variants	131
<b>Otto</b>	Midi Dresses	Depth	Articles with variants	59
<b>Otto</b>	Midi Dresses	Breadth	Number of Articles	401
<b>Otto</b>	Midi Dresses	Price	Lowest Price	19.99 €
<b>Otto</b>	Midi Dresses	Price	Highest Price	299 €
<b>Otto</b>	Midi Dresses	Price	Total Price	28,404.78 €
<b>Otto</b>	Midi Dresses	Price	Average Price	65.60 €
<b>Otto</b>	Midi Dresses	Price Range	0-30 euros	46
<b>Otto</b>	Midi Dresses	Price Range	31-50 euros	129
<b>Otto</b>	Midi Dresses	Price Range	51-80 euros	146
<b>Otto</b>	Midi Dresses	Price Range	81-100 euros	36
<b>Otto</b>	Midi Dresses	Price Range	101-150 euros	26
<b>Otto</b>	Midi Dresses	Price Range	151-200 euros	12
<b>Otto</b>	Midi Dresses	Price Range	>200 euros	6
<b>Otto</b>	Midi Dresses	Retail Brands	Number of Articles	0
<b>Otto</b>	Midi Dresses	Basic Fashion Mix	Number of Fashionable Pieces	363
<b>Otto</b>	Midi Dresses	Basic Fashion Mix	Number of Basics	38
<b>Otto</b>	Bootcut Jeans	Size	Size	329
<b>Otto</b>	Bootcut Jeans	Depth	Variants	197

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Appendix

<b>Retailer</b>	<b>Category</b>	<b>Element</b>	<b>Description of element</b>	<b>Result</b>
<b>Otto</b>	Bootcut Jeans	Depth	Articles with variants	63
<b>Otto</b>	Bootcut Jeans	Breadth	Number of Articles	195
<b>Otto</b>	Bootcut Jeans	Price	Lowest Price	19.99 €
<b>Otto</b>	Bootcut Jeans	Price	Highest Price	170 €
<b>Otto</b>	Bootcut Jeans	Price	Total Price	8,661.41 €
<b>Otto</b>	Bootcut Jeans	Price	Average Price	50.95 €
<b>Otto</b>	Bootcut Jeans	Price Range	0-30 euros	9
<b>Otto</b>	Bootcut Jeans	Price Range	31-50 euros	75
<b>Otto</b>	Bootcut Jeans	Price Range	51-80 euros	88
<b>Otto</b>	Bootcut Jeans	Price Range	81-100 euros	26
<b>Otto</b>	Bootcut Jeans	Price Range	101-150 euros	19
<b>Otto</b>	Bootcut Jeans	Price Range	151-200 euros	2
<b>Otto</b>	Bootcut Jeans	Price Range	>200 euros	0
<b>Otto</b>	Bootcut Jeans	Retail Brands	Number of Articles	25
<b>Otto</b>	Bootcut Jeans	Basic Fashion Mix	Number of Fashionable Pieces	9
<b>Otto</b>	Bootcut Jeans	Basic Fashion Mix	Number of Basics	202
<b>Otto</b>	Leather Skirts	Size	Size	174
<b>Otto</b>	Leather Skirts	Breadth	Number of Articles	139
<b>Otto</b>	Leather Skirts	Depth	Variants	57
<b>Otto</b>	Leather Skirts	Depth	Articles with variants	22
<b>Otto</b>	Leather Skirts	Price	Lowest Price	24.99 €
<b>Otto</b>	Leather Skirts	Price	Highest Price	299.95 €
<b>Otto</b>	Leather Skirts	Price	Total Price	11,249.87 €
<b>Otto</b>	Leather Skirts	Price	Average Price	80.93 €
<b>Otto</b>	Leather Skirts	Price Range	0-30 euros	11
<b>Otto</b>	Leather Skirts	Price Range	31-50 euros	56
<b>Otto</b>	Leather Skirts	Price Range	51-80 euros	31
<b>Otto</b>	Leather Skirts	Price Range	81-100 euros	10
<b>Otto</b>	Leather Skirts	Price Range	101-150 euros	13
<b>Otto</b>	Leather Skirts	Price Range	151-200 euros	11
<b>Otto</b>	Leather Skirts	Price Range	>200 euros	4
<b>Otto</b>	Leather Skirts	Retail Brands	Number of Articles	4
<b>Zalando</b>	Midi Dresses	Breadth	Number of Articles	573
<b>Zalando</b>	Midi Dresses	Depth	Variants	64
<b>Zalando</b>	Midi Dresses	Depth	Articles with variants	29
<b>Zalando</b>	Midi Dresses	Price	Lowest Price	19.95 €
<b>Zalando</b>	Midi Dresses	Price	Highest Price	715 €
<b>Zalando</b>	Midi Dresses	Price	Total Price	50,302.91 €
<b>Zalando</b>	Midi Dresses	Price	Average Price	82.74 €
<b>Zalando</b>	Midi Dresses	Price Range	0-30 euros	43
<b>Zalando</b>	Midi Dresses	Price Range	31-50 euros	179
<b>Zalando</b>	Midi Dresses	Price Range	51-80 euros	202
<b>Zalando</b>	Midi Dresses	Price Range	81-100 euros	51
<b>Zalando</b>	Midi Dresses	Price Range	101-150 euros	38
<b>Zalando</b>	Midi Dresses	Price Range	151-200 euros	33

Assortments in Fashion E-Commerce  
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<b>Retailer</b>	<b>Category</b>	<b>Element</b>	<b>Description of element</b>	<b>Result</b>
<b>Zalando</b>	Midi Dresses	Price Range	>200 euros	36
<b>Zalando</b>	Midi Dresses	Size	Size	608
<b>Zalando</b>	Midi Dresses	Retail Brands	Number of Articles	0
<b>Zalando</b>	Midi Dresses	Basic Fashion Mix	Number of Fashionable Pieces	580
<b>Zalando</b>	Midi Dresses	Basic Fashion Mix	Number of Basics	46
<b>Zalando</b>	Bootcut Jeans	Size	Size	492
<b>Zalando</b>	Bootcut Jeans	Depth	Variants	268
<b>Zalando</b>	Bootcut Jeans	Depth	Articles with variants	68
<b>Zalando</b>	Bootcut Jeans	Breadth	Number of Articles	292
<b>Zalando</b>	Bootcut Jeans	Price	Lowest Price	19.95 €
<b>Zalando</b>	Bootcut Jeans	Price	Highest Price	329.95 €
<b>Zalando</b>	Bootcut Jeans	Price	Total Price	41,471.82 €
<b>Zalando</b>	Bootcut Jeans	Price	Average Price	86.94 €
<b>Zalando</b>	Bootcut Jeans	Price Range	0-30 euros	52
<b>Zalando</b>	Bootcut Jeans	Price Range	31-50 euros	134
<b>Zalando</b>	Bootcut Jeans	Price Range	51-80 euros	127
<b>Zalando</b>	Bootcut Jeans	Price Range	81-100 euros	67
<b>Zalando</b>	Bootcut Jeans	Price Range	101-150 euros	44
<b>Zalando</b>	Bootcut Jeans	Price Range	151-200 euros	23
<b>Zalando</b>	Bootcut Jeans	Price Range	>200 euros	37
<b>Zalando</b>	Bootcut Jeans	Retail Brands	Number of Articles	15
<b>Zalando</b>	Bootcut Jeans	Basic Fashion Mix	Number of Fashionable Pieces	58
<b>Zalando</b>	Bootcut Jeans	Basic Fashion Mix	Number of Basics	453
<b>Zalando</b>	Leather Skirts	Size	Size	83
<b>Zalando</b>	Leather Skirts	Depth	Variants	0
<b>Zalando</b>	Leather Skirts	Depth	Articles with variants	0
<b>Zalando</b>	Leather Skirts	Breadth	Number of Articles	83
<b>Zalando</b>	Leather Skirts	Price	Lowest Price	19.99 €
<b>Zalando</b>	Leather Skirts	Price	Highest Price	649 €
<b>Zalando</b>	Leather Skirts	Price	Total Price	18,527.04 €
<b>Zalando</b>	Leather Skirts	Price	Average Price	223.22 €
<b>Zalando</b>	Leather Skirts	Price Range	0-30 euros	1
<b>Zalando</b>	Leather Skirts	Price Range	31-50 euros	7
<b>Zalando</b>	Leather Skirts	Price Range	51-80 euros	9
<b>Zalando</b>	Leather Skirts	Price Range	81-100 euros	4
<b>Zalando</b>	Leather Skirts	Price Range	101-150 euros	5
<b>Zalando</b>	Leather Skirts	Price Range	151-200 euros	20
<b>Zalando</b>	Leather Skirts	Price Range	>200 euros	34
<b>Zalando</b>	Leather Skirts	Retail Brands	Number of Articles	0

## Appendix G: Offered private labels

**Table G: Offered private labels**

Amazon	Otto	Zalando	Baur	About You
Aurique	AJC	Anna Field	Aniston	ABOUT YOU
Find.	Arizona	Even&Odd	Cheer	Anna & Ella
Iris&Lilly	Boysen's	Kiomi	Corley	Edited
Meraki	Chillytime	Mint & Berry	Vivance	
Truth & Fable	Flashlights	Twintip		
	Laura Scott	Zalando Essentials		
	Melrose			

Based on: (Otto GmbH & Co KG, 2013; BAUR-Gruppe, 2017; Randler, 2017; Henkel, 2018; Zlabels, 2018)