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**Payment Options, Characteristics and Rating
of Online Shops in Switzerland**

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Preface and Declaration of Authenticity

This research work was written to meet the requirements in the module “Project 2”. The module is part of the Master of Science of Business Information Systems program of the University of Applied Sciences Northwestern Switzerland (www.fhnw.ch/msc-bis).

The topic of this work was chosen because of the following reasons: The characteristics of the online shops in Switzerland have practically not been examined so far. Only a few characteristics of the Swiss online shops were researched by a few international or European studies (Lewis et al. 2008; Selhofer et al. 2010). This study aims to extend the knowledge about the current state of the characteristics in Swiss online shops.

Special thanks go to Achim Dannecker who supported me substantially in this work.

I the undersigned declare that all material presented in this paper is my own work or fully and specifically acknowledged wherever adapted from other sources.

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Basel in April 2010

Michael Quade

Abstract

Those who want to buy a product or a service on the Internet either consult the online shop of their choice and check whether the shop offers the required product or service or they use a search engine or a specialized portal. Such specialized portals are price comparison portals or portals with product tests. Beyond these two types there are portals that are built up as directories, in which online shops are listed by product categories.

At the price comparison portals or portals with product tests, the online shops are in the background. Because the main purpose of these portals is the comparison of prices and product reviews. But precisely these portals offer information about online shops. E.g. which payment options can be used, which delivery options are available, which features a shop has and who the provider of an online shop is.

Customers of online shops can often contribute by making ratings of the shops. Many price comparison portals offer customer ratings, enabling the customer to have an impression of the behavior of an online shop and its provider, before buying something.

This work evaluates the information about online shops retrieved from a price comparison portal and a directory. These two information sources deal almost exclusively with online shops from Switzerland. The evaluations include the offer of payment options, delivery options, basic shop functions, security measures and customer ratings.

This work presents a non-representative study of the characteristics of online shops in Switzerland. It is non-representative because the selected sources do not give any information about how many online shops there are in the whole of Switzerland and what kind of products and services they offer.

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List of Abbreviations

BfS	Bundesamt für Statistik
COD	Cash on Delivery
CSV	Comma Separated Values
EC	Eurocard
OCR	Optical Character Recognition
SSL	Secure Sockets Layer
URL	Uniform Resource Locator
VAT	Value Added Tax
WIR	Wirtschaftsring

1 Introduction

An online shop is a useful application for selling products to customers via the Internet. In the literature are discussed requirements on e-commerce in general (Davis 1989; Stahl et al. 2009; Ha & Stoel 2009), payment options (van Baal 2007; Henssler & Klenke 2009; Krüger et al. 2008; Pumberger & Wasilewski 2008), online advertising (Babin et al. 1994; Childers et al. 2001; Van der Heijden 2004) and trust between the sellers and the buyers (Ha & Stoel 2009; van der Heijden & Verhagen 2004; C. Kim et al. 2009; Verhagen et al. 2003). On the other hand, there is little literature available on how the customers rate the online shops and their characteristics, like features and services (Ba et al. 2007).

As for Switzerland there is no literature available that answers the following questions: Which characteristics of online shops are rated rather well by the majority of customers? With which characteristics are the customers rather less satisfied? Where is there still potential for differentiation for online shops? Furthermore the questions arise, which payment and delivering options are offered to the customer? Are these options offered differently related to the product assortment of an online shop? (Verhagen & Boter 2005)

Before these questions can be answered and the characteristics and services of Swiss online shops can be examined, data about characteristics and services of online shops must be collected. Different data sources were found and evaluated. These sources are mainly price comparison portals.

Many of these price comparison portals do offer information about the characteristics of the different online shops. In the foreground, of course, is the price comparison of single products between different online shops. But in the background customers can inform themselves about the characteristics of the online shops. They can inform themselves about the payment options offered without visiting the online shop, depending on whether the connection between the shop server and the customer's computer is encrypted with SSL or not, whether the online shop provides information about product availability, or how other customers have rated the shop and its services, etc.

Especially the rating can help customers to get a notion of what will expect them in this specific online shop (Ba et al. 2007). E.g. whether the online shop offers helpful product information or not, whether they can expect support when there are problems with the purchased products. Positive ratings by other customers can help to build up trust in the online shop and negative ratings can make the customers realize that it would be advisable to buy products in another shop.

As mentioned before, the present study concentrates mainly on the analysis of characteristics and services of online shops in Switzerland. The results of this study can support potential online shop providers to decide in what characteristics and services they should invest and what payment and delivery options they should offer depending on their product assortment (Verhagen & Boter 2005).

This work is structured as follows: Chapter 2 contains the literature review about the topics in this work. In chapter 3 the research design is described with evaluation of the sources, data extraction process and the basic structure of the retrieved data. Chapter 4 contains the descriptive analysis of the retrieved data with comparison of the payment options and delivery option in different categories of online shops. Chapter 5 concentrates on the analysis of the customer ratings of different shops from a price comparison portal. The rating criteria of one data source are analyzed in chapter 6 with the exploratory factor analysis. Chapter 7 closes this work with the conclusion.

2 Literature Review

Companies must consider many aspects, when they want to sell products and service over the Internet by so called e-commerce. First, the companies must be aware of the definition of e-commerce. Many definitions of e-commerce can be found in the literature. Zwass (1996, p.1) defines e-commerce as “the sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunications networks.” Kauffman & Walden (2001, p.87) emphasize “the Internet as a medium for enabling end-to-end business transactions” and that e-commerce “applies equally well in dotcom, Internet-only business settings, as well as more traditional business settings where the new channel of the Internet is being used alongside existing channels.” Another definition that focuses on the B2C side of e-commerce is the version of Treese & Stewart (1998, p.5): They define e-commerce as “the use of the global Internet for purchase and sale of goods and services, including service and support after the sale”.

Based on these definitions B2C e-commerce has the more or less same aspect as selling products and services in a brick and mortar shop. Just the advantages and disadvantages of the two channels are different (Otto & Chung 2000, p.2; Mahadevan 2000, p.9). E-commerce is more like the traditional mail order business than the business in a brick and mortar shop. The main difference between mail order and e-commerce is that there is no need for the product catalog to be printed and sent out to potential customers. Products can be displayed in an electronic catalog on a website in the Internet (Gulati & Garino 2000). More sophisticated websites also have additional features like an electronic order form, a virtual shopping basket and a virtual check out (Ranganathan & Ganapathy 2002).

For a company it is also important to understand the different phases of e-commerce: information, agreement, fulfillment, and after sales (cf. Schmid et al. 1995; Zbornik 1996; Selz & Schubert 1997, p.49). Each phase needs the attention of the company. Because in different phases different features of an online shop are important. For instance, an online shop provider for whom it is most important to be paid for the products and services provided (Teichmann et al. 2001). should focus on the agreement phase. One part of this phase is to offer payment options. To serve a vast amount of customers, the same payment options should be offered that customers are already using. (Jarvenpaa & Todd 1996). Several current studies give an overview which payment options customers use and what online shops offer (Krüger et al. 2008; Henssler & Klenke 2009; Lewis et al. 2008). These studies are mainly oriented on the markets in the United States or Germany. For Switzerland there are no current studies available.

If, on the other hand, a customer wants to have all available information about the product she or he wishes to buy before making the buying decision, the online shop provider should focus on providing the required information (Rowley 2000; Dennis et al. 2002; Lightner & Eastman 2002; Hong et al. 2004; S. Y. Choi et al. 2006). The fun factor has to be considered as well by the online shop provider: Because when shopping is fun, a customer will often buy more (Babin et al. 1994; Treese & Stewart 1998; Miles et al. 2000; Wolfenbarger & Gilly 2001; Van der Heijden 2004; Koo 2006; Islam 2009).

Beside these factors another factor is important for online shop providers and customers, namely trust. Without trust, no e-commerce will happen. In the late nineties, when e-commerce developed, trust between online shop providers and customers was hard to establish (H. Wang et al. 1998; Hoffman et al. 1999). Different solutions like trust and security certificates (e.g. SSL) and reputation systems were developed to achieve trust between the companies and consumers. (Corritore et al. 2003; Chen & Tan 2004; Resnick et al. 2000, p.46).

When trust has to be established through reputation systems two things must be considered: First, using such a system should be easy and should possibly be fun as well (Van der Heijden 2004, p.1). And secondly, it has to be decided how unfair ratings or fraud ratings have to be treated in such a reputation system (Dellarocas 2000, p.1415). If these two things are fulfilled the recorded reputation of an online shop could also be regarded as an indicator of its credibility (Melnik & Alm 2002, pp.347-348; Shmatikov & Talcott 2005, p.167).

If trading is made on the basis of a reputation system not only the transaction partners will find positive attention, but also the reputation system itself. This positive effect will attract more participants who want to contribute to the reputation system. This encourages competition between the online shops, which in turn will heighten their efforts to get good ratings (Kollock 1999). Such a significant relation between the sales of a seller on eBay and his reputation was e.g. demonstrated by Cabral & Hortaçsu (2004, pp.33-34).

The price level is often an important criterion for the online shopping customer (P. Lee 2002, p.82), especially for shopping experts (Bhavnani 2001, p.2; Bhavnani et al. 2006, p.7). Today, several price comparison portals can be accessed in the Internet. But more and more the price comparison portals offer reputation system and information about online shops that have registered themselves on these portals. Ba et al. (2007) stated that "the Internet has significantly increased the bargaining power of consumers". And that offering the lowest price alone does not always guarantee that consumers will come and buy at your site. Other non-price attributes, such as service quality and a merchant's brand recognition, also play important roles in helping online retailers to build competitive advantages". They presented also a model that shows how e-tailers (Keen et al. 2004) can mainly differentiate themselves beyond the price.

3 Research Design and Methodology

The following two chapters describe how price comparison portals as possible data sources were evaluated and how the data were extracted and edited from the selected sources.

The research methodologies in this work are based on the principles of descriptive analysis of collected information. The information is summarized and displayed as charts and tables. Mean values and standard deviations are provided in descriptive distribution analysis.

3.1 Evaluation and Selection of Sources

For the preparation of an Internet address list of online shops in Switzerland different Internet based directories, offline directories and platforms for price comparisons were accessed. Four price comparison portals, one online and one offline directory were evaluated as a possible source for the addresses (amount of online shops listed as per access of August 2nd, 2009):

Price comparison platforms

- guentstiger.ch (number of listed online shops unclear)
- preisvergleich.ch (number of listed online shops unclear)
- toppreise.ch (338 registered online shops)
- comparis.ch (ca. 150 registered online shops)

Online shops directories

- eshops.ch (469 registered online shops)
- ShoppingAktuell (Offline directory, edition May 2009, 535 registered online shops)

The platforms and directories offer a different amount of information about the online shops. Depending on the platform or directory information about the offered payment options, delivery options, contact channels to online shop providers, and characteristics of the shop (e.g. shopping basket, search function) are provided. Most portals show ratings, reviews, information about features and offered payment options of the listed online shops.

Table 1 gives an overview over the provided information of the different price comparison platforms and online shop directories (cf. Appendix A).

Table 1: Information found on online shops at price comparison platforms and directories

	guentstiger.ch	preisvergleich.ch	toppreise.ch	comparis.ch	eshops.ch	ShoppingAktuell
Number of shops listed	unclear	unclear	338	ca. 150	469	535
Main product category					X	X
Description of the shop					X	X
Overall rating of the shop		X	X	X	X	
Detailed shop ratings		X	X	X		
Rating by registered users			X			
Delivery options	X		X	X	X	
Payment options	X		X	X	X	X
Shop features	X		X			
Trust features	X		X			
Contact information	X		X	X		X
Direct link to shop	X	X	X	X	X	X

In the two directories eshops.ch and ShoppingAktuell the online shops are listed by their main product category, e.g. "computer & electronics", "eating & drinking" and "sports, leisure, hobby". These two directories also offer a brief description of the shops.

An overall rating of the online shop is provided by four platforms or directories, three platforms provide some detailed ratings, e.g. shop design and navigation, price and service level. In the following the differences of information offered between the platforms or directories are described.

guenstiger.ch lists information about payment options and shop features but no ratings are available (cf. Figure A-1, p. 43).

At preisvergleich.ch a user can rate anonymously a shop with four criteria: "Presentation and navigation", "information and service", "ordering and costs", "delivery" (cf. Figure A-2, p. 44). No further information about the shop characteristics is given.

The rating at toppreise.ch consists of 12 criteria, which are divided up into two blocks (cf. Figure A-3, p. 45). Only registered users can rate the shops. In addition, this portal provides information about payment options, delivery options, shop characteristics and trust features.

eshops.ch only provides an overall five star rating for each shop. Users can rate the shops anonymously like on preisvergleich.ch (cf. Figure A-5, p. 47). A short shop description and some information about delivery and payment options are provided.

Six evaluation criteria are stated at comparis.ch: "payment options", "delivery", "ordering", "consumer rights", "contact channels", and "information" on the web page (cf. Figure A-4, p. 46). comparis.ch does not let customers rate the online shops on their platform. comparis.ch has carried out the rating by itself.

ShoppingAktuell provides a brief shop description and the offered payment options and contact information (cf. Figure A-6, p. 47).

toppreise.ch and ShoppingAktuell were selected as data source because of the following reasons:

toppreise.ch offers the largest amount of information about online shops. In comparison with the other price comparison portals the largest amount of online shops are listed. The ratings are very detailed and made by registered users. The listed payment options cover the commonly known ones like "payment of account", "credit cards", "cash on delivery", "advance payment" and "cash on collection" (cf. chapter 4.2). Furthermore, the information about the online shops is provided in a format that allows data extraction over the web (cf. chapter 3.2).

ShoppingAktuell was selected because it provides a main product category for each shop (and every shop is listed exactly in one category). It also provides information about the payment options and contact information.

3.2 Extraction of Data

The information of the two selected sources was retrieved and extracted in two different ways. Especially the first two steps of the data extraction process were different per source (cf. Figure 1).

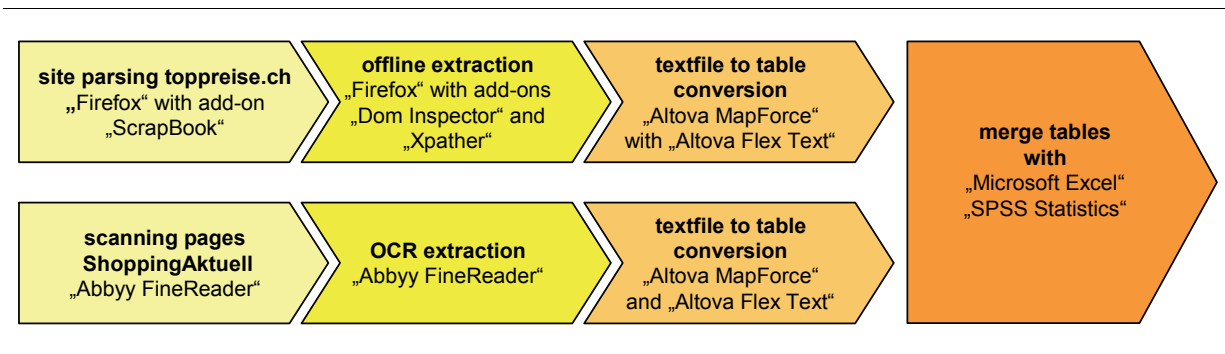


Figure 1: Data extraction process

First, the data from toppreise.ch was retrieved directly as HTML pages from the Internet in the first step. The „Dealer list“ of toppreise.ch with the 342 linked dealer details pages was parsed and saved on a local computer drive with the actual version of the web browser „Firefox“¹ and the add on „ScrapBook“². The HTML pages were saved with all pictures that were displayed on the single pages. ScrapBook converted also all links to other pages (e.g. the dealer details pages), when there was a link to a page that was saved by ScrapBook too. Therefore, it is possible to browse through the pages offline.

In the second step the locally saved 342 HTML pages were analyzed with the Firefox add on „DOM Inspector“³ and the data was extracted in to a text file with add on „XPather“⁴. Several XPath⁵ statements (Berglund et al. 2007) were necessary to access the embedded semi-structured information.

To retrieve the data from the paper based magazine ShoppingAktuell all necessary pages were scanned in the first step with Abbyy FineReader⁶ as grayscale pictures.

In the second step the data on the scanned pages was converted to a text file with the Fine-Reader OCR function (Optical Character Recognition) (Cash & Hatamian 1987). To convert only the data that will be used, the specific areas on the scanned pictures were manually marked with rectangles on the scanned pages (cf. right side of Figure 2). After all rectangles were placed on all pictures and the OCR function had converted the data to electronic text, a manual check of all marked areas on the text was carried out to correct potential recognition errors (cf. right side of Figure 2).

The data on the pages of ShoppingAktuell is presented in a semi-structured way too. The information about an online shop starts in most cases with „www.“ and the information about the

¹ <http://www.mozilla-europe.org/de/firefox>, accessed on 11 July 2009

² <https://addons.mozilla.org/de/firefox/addon/427>, accessed on 11 July 2009

³ <https://addons.mozilla.org/de/firefox/addon/6622>, accessed on 20 July 2009

⁴ <https://addons.mozilla.org/de/firefox/addon/1192>, accessed on 20 July 2009

⁵ XPath, the XML Path Language, is a query language for selecting nodes from an XML documents. In addition, XPath may be used to compute values (e.g., strings, numbers, or Boolean values) from the content of an XML document. XPath was defined by the World Wide Web Consortium (W3C). (<http://en.wikipedia.org/wiki/Xpath>, accessed on 17 April 2010)

⁶ <http://finereader.abbyy.com>, accessed on 20 July 2009

payment options starts always with the string “Zahlungsart:” Other values like “Tel.,” and “Fax:” are used to split up the data into single values in the next step. With a plain text editor the structure of the text file was corrected to have a well structured basis for the next step.

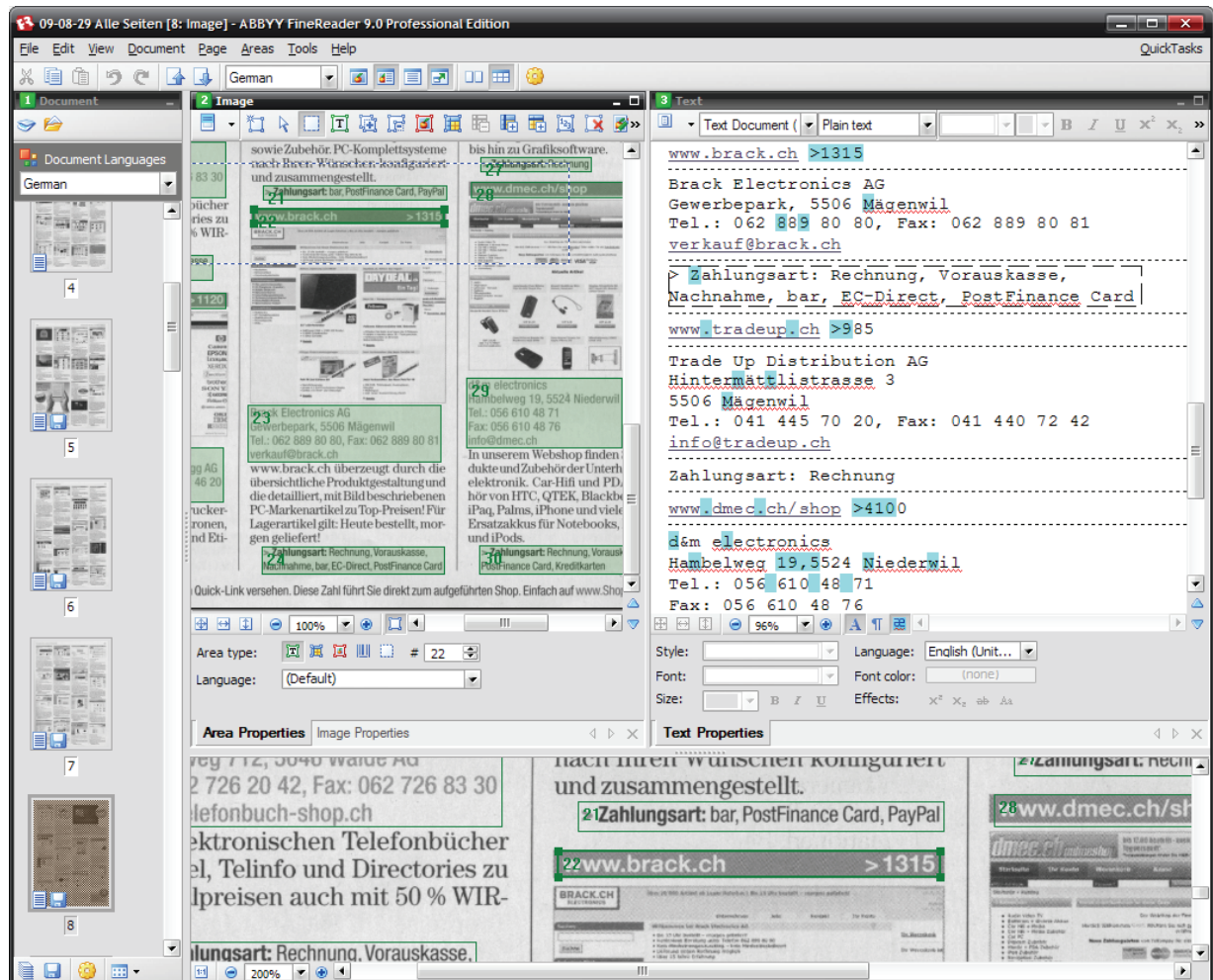


Figure 2: Scanning pages of ShoppingAktuell with AbbyyFineReader

In step three (cf. Figure 1) the created text files were converted with “Altova MapForce”⁷ and its component “Altova FlexTex”⁸ into CSV tables (Comma Separated Values). The Altova MapForce component FlexTex allows splitting up semi-structured text files into single data sets and fields. FlexTex acts also as data input in Altova Mapforce (cf. left side in Figure 4).

To convert the data into tables with Altova MapForce a data output has to be defined as well. MapForce supports different kinds of files than data output: Text file files (e.g. CSV Files), Excel 2007 files, XML files and some others (Altova 2009). For this conversion a CSV file was defined as output. Altova MapForce supports CSV files with headers in the first line of the file. The headers are used to display data field names in MapForce (cf. right side in Figure 4).

⁷ <http://www.altova.com/de/mapforce.html>, accessed on 1 September 2009

⁸ <http://www.altova.com/de/mapforce/text-konvertieren.html>, accessed on 1 September 2009

MapForce has several built-in modify and conversion functions. These function were used to format values e.g. to lowercase or to create output values: E.g. if for a specific online shop the data in the FlexTex field “Bezahlmöglichkeiten” contains the string “PayPal” a “1” for true is written in the output data field “PayPal” (cf. red rectangles in Figure 4).

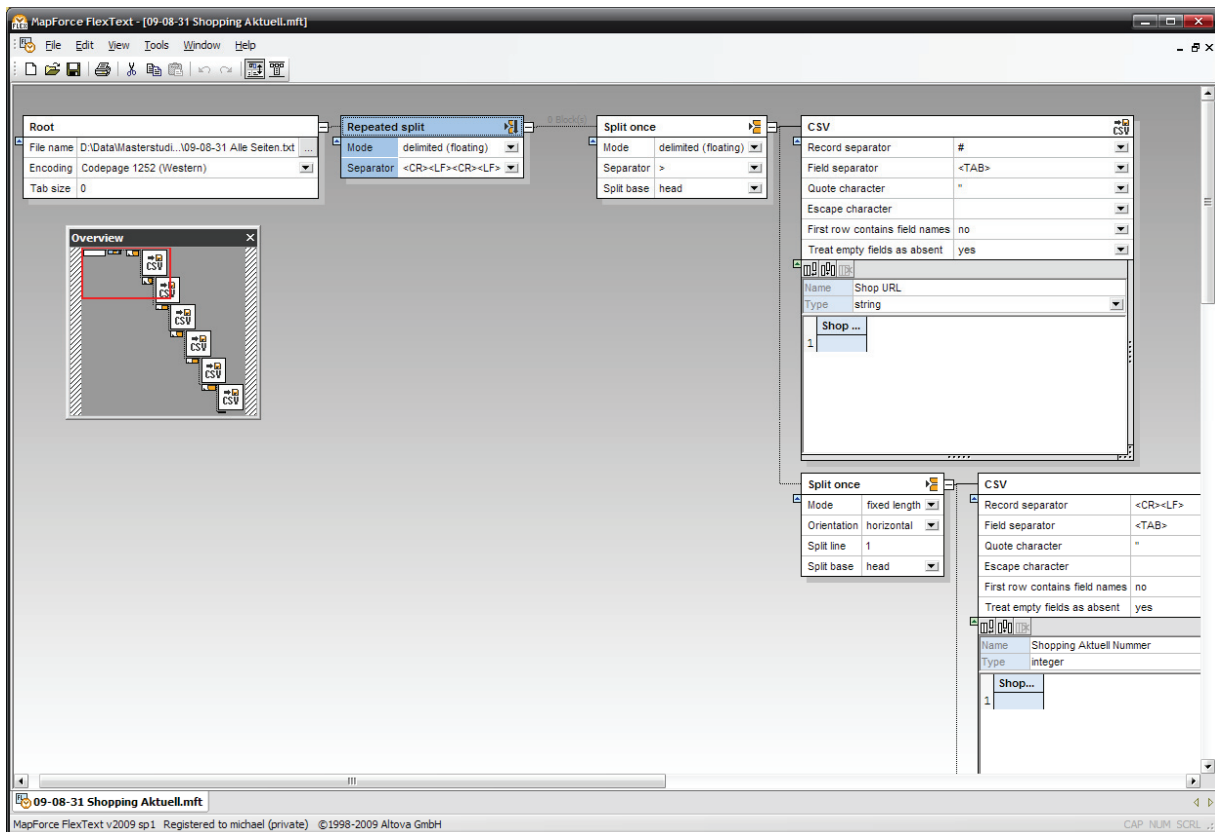


Figure 3: ShoppingAktuell text file split up with Altova MapForce component Altova FlexText

MapForce was also used to add the Swiss canton abbreviation to the companies' address that was provided to each online shop by toppreise.ch but not by ShoppingAktuell. Source for the canton abbreviations was the list of postal codes of the Swiss Post⁹. According to the postal code the relating canton abbreviation was searched by MapForce in the file from the Swiss Post and added to the mapped output data field.

Online shops that are listed on toppreise.ch and in ShoppingAktuell were merged with „Microsoft Excel“¹⁰ into one data record. When a difference was found between e.g. the offered payment options of an online shop listed in both sources, the online shop was visited to retrieve the correct data. This was made for approx. a dozen out of the 61 cases (cf. Figure 5).

In the last step the tables were imported into „SPSS Statistics“¹¹ and a single SPSS file was created. This file is the basis for the descriptive analysis and the factor analysis in the chapters 4 and 6.

⁹ https://match.postmail.ch/match_zip, accessed on 30 August 2009

¹⁰ <http://office.microsoft.com/de-at/excel/FX100487621031.aspx>, accessed on 1 September 2009

¹¹ <http://www.spss.com/statistics>, accessed on 1 September 2009

SPSS was also used to harmonize the data: E.g. toppreise.ch lists four different credit cards (Visa, Mastercard, American Express, Diners Club). ShoppingAktuell mentions only that a payment option “Kreditkarten” is available for a specific online shop. The value “credit cards” was calculated for the shops listed only on toppreise.ch: When such a shop accepts one of the mentioned credit cards for payment the value was set to “1”.

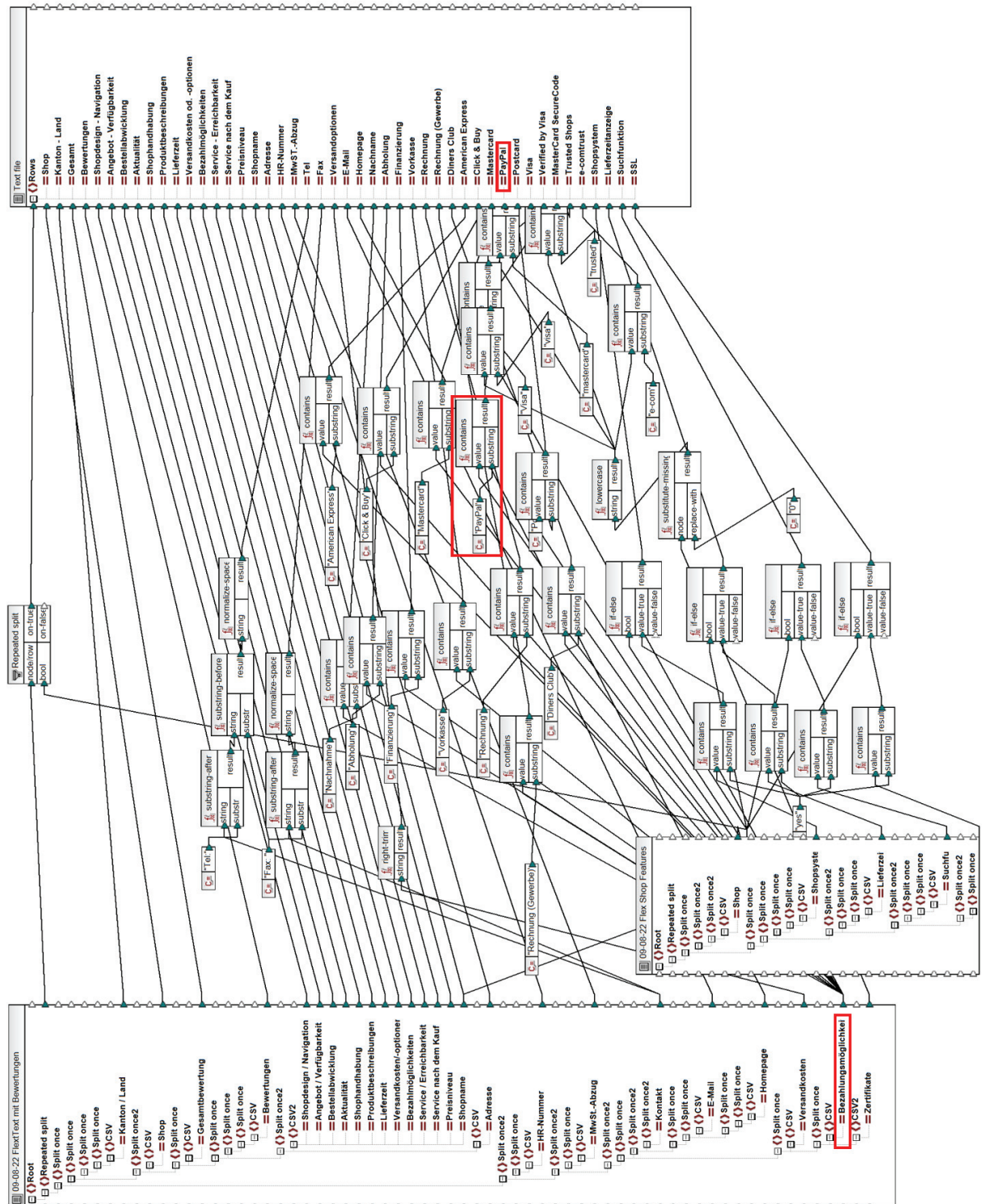


Figure 4: Data field mapping with Altova MapForce

3.3 Sample Structure

The two selected sources toppreise.ch and ShoppingAktuell list 812 different online shops. 61 or 7.5 % online shops are listed in both sources and 474 or 58.4 % are listed only in the paper based magazine ShoppingAktuell, 277 or 34.1 % are listed only on toppreise.ch (cf. Figure 5 and Table 2).

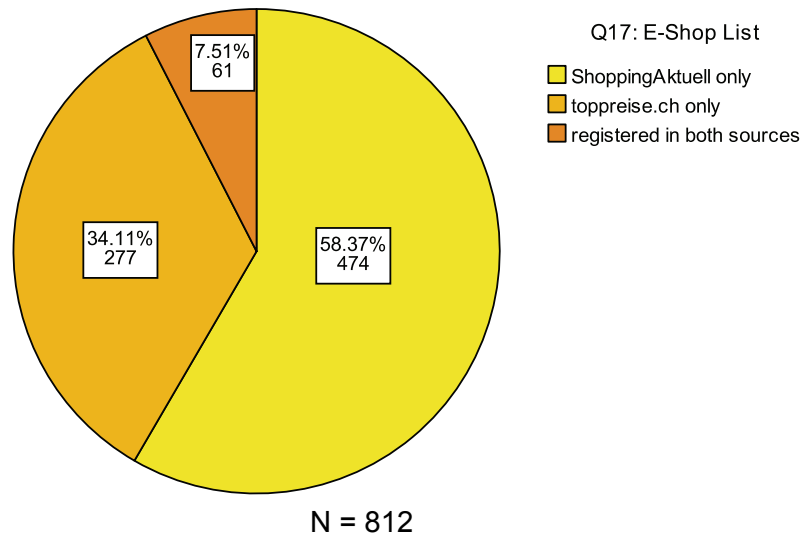


Figure 5: Amounts of listed online shops in selected sources (Q17)

Table 2: Amounts of listed online shops in selected sources (Q17)

		Frequency	Percent	Cumulative Percent
Valid	ShoppingAktuell only	474	58.4%	58.4%
	toppreise.ch only	277	34.1%	92.5%
	registered in both sources	61	7.5%	100.0%
	Total	812	100.0%	

Most of the online shops have a company address in one of the Swiss cantons or in the Fürstentum Liechtenstein (FL)¹². Only 6 online shops or 0.7 % from the sources toppreise.ch have no address in Switzerland or in the Fürstentum Liechtenstein: The countries of origin of these online shops are Belgium (BE), Germany (DE) and Ireland (IR) (cf. Table 3).

All except one of the online shops from outside of Switzerland and the Fürstentum Liechtenstein have a URL with the top level domain ".ch" (cf. Table 4). These online shops are not filtered out from the analysis in the following chapters, because the delivery conditions they of-

¹² Fürstentum Liechtenstein is strongly bound to the Swiss economy since 1923 by and customs treaty: It uses the same currency as Switzerland and the same system for the value added taxes (VAT). Switzerland and the Fürstentum Liechtenstein shares the same Postal code system. http://www.liechtenstein.li/eliiechtenstein_main_sites/portal_fuerstentum_liechtenstein/fl-staat-staat/fl-staat-aussenpolitik/fl-staat-aussenpolitik-bilateral/fl-staat-aussenpolitik-bilateral-schweiz.htm, accessed on 2 April 2010

fer are comparable to the other online shops in the sample. In addition, the influence of these online shops on the results of the analysis can be ignored because of the small amount.

Table 3: Country of origin of online shops (Q08)

		Frequency	Percent	Cumulative Percent
Valid	BE	1	.1 %	.1 %
	CH	802	98.8 %	98.9 %
	DE	4	.5 %	99.4 %
	FL	4	.5 %	99.9 %
	IR	1	.1 %	100.0 %
	Total	812	100.0	

Table 4: Online shops with company address outside Switzerland or the Fürstentum Liechtenstein (Q08)

		Country
Valid	www.apple.com/swissdestore	Ireland
	www.epson-store.ch	Germany
	www.lee-store.ch	Germany
	www.nexxtdirect.ch	Germany
	www.sonystyle.ch	Belgium
	www.tinte.ch	Germany

A comparison of the amount of online shops per canton in Switzerland shows that almost one third (29.7 %) have their address in the canton of Zürich (ZH) (cf. Figure 6 and Table 5). Compared to the 16.5 % of places of work¹³ in the canton of Zürich in relation to overall Switzerland (Bundesamt für Statistik 2009, p.10) this is a ratio of 2:1 (29.7 % to 16.5 %).

Similar ratios of percentages of online shops listed to the percentage of places of work have the canton of Aargau (AG) (12.7 % to 6.9 %) and the canton of Zug (ZG) (4.6% to 2.4 %). A reason for this could be that in these cantons the taxes for companies are relatively low and that online shops are often relatively young companies. So when the founders of these online shops had to select a domicile they selected a canton with low company taxes.

The chart and table (cf. Figure 6 and Table 5) show also that in most cantons where the mainly spoken language is not German, the ratio of percentages of online shops listed compared to the places of work is lower than 1:4. These cantons are Vaud (VD), Geneva (GE), Ticino (TI), Valais (VS), Neuchâtel (NE) and Jura (JU). Only the canton of Fribourg (FR) has a slightly higher ratio than 1:4. In parts of this canton the mainly spoken language is German.

A reason for this could be that ShoppingAktuell offers its online shop registration form only in German and therefore does not attract online shop providers who do not speak German (cf. Appendix A, Figure A-8). toppreise.ch offers registration forms in German, French and English. Another reason for the low number of shops from not German speaking parts of Switzerland could be that toppreise.ch and ShoppingAktuell have an address in a German speaking

¹³ Definitions from the BfS (Bundesamt für Statistik 2007, p.6)

Place of work: A place of work is a defined geographical unit (shop, office, factory, etc.) in which an economic activity of at least 20 hours per week is produced. The place of work is the basic unit of the census, over which the data are collected.
Company: A company (or institutional unit) is the smallest legally independent unit. It may consist of a single, but also of several places of work (headquarters and branches).

canton or country (ShoppingAktuell: ZH, toppreise.ch: Germany). And the target groups of their platform or magazine is mainly the German speaking part of Switzerland. Also, the magazine ShoppingAktuell is published only in German.

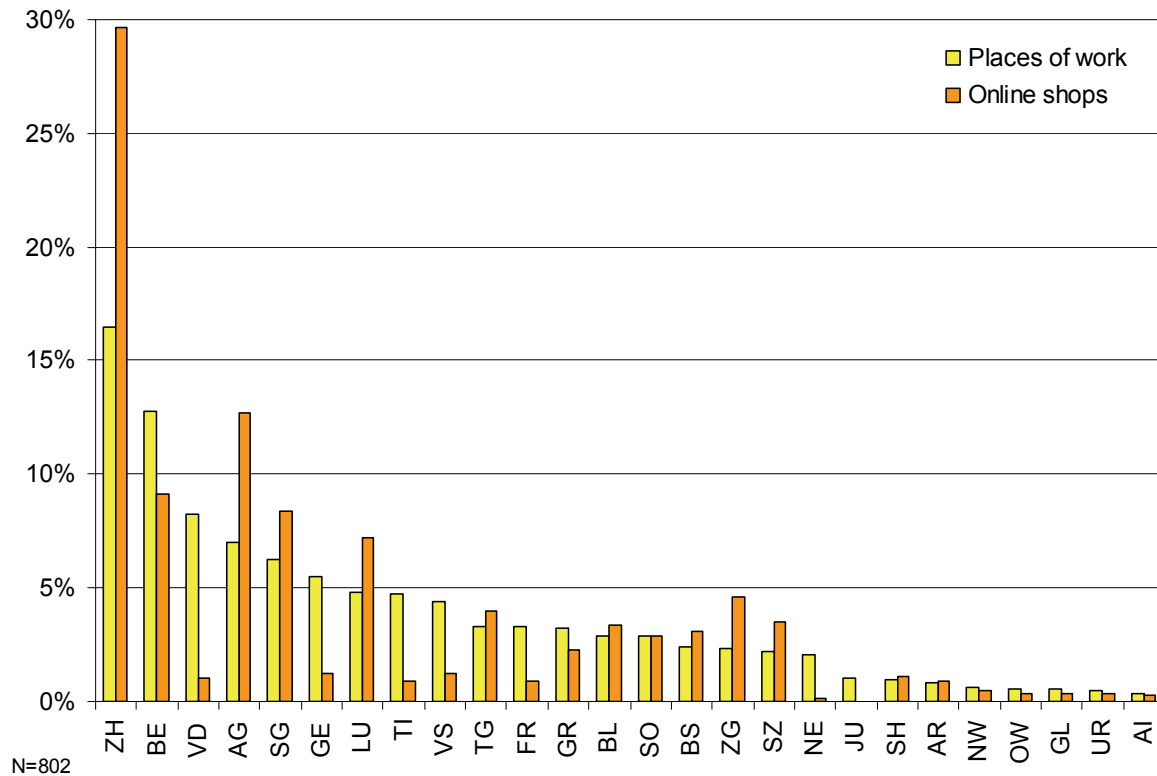


Figure 6; Amount of places of work¹⁴ and online shops in the cantons of Switzerland (Q13)

The rest of the cantons are showing a ratio of the percentage of places of work and online shops between 1.6:1 and 1:1.4.

¹⁴ Data source for count of "places of work" is the publication "Eidgenössische Betriebszählung 2008 - Wirtschaftsstruktur. Landwirtschaft Industrie Dienstleistungen, Schweiz Grossregionen Kantone - Arbeitsstätten, Beschäftigte" (Bundesamt für Statistik 2009, p.10).

Table 5: Amount of places of work and online shops in the cantons of Switzerland (Q13)

Canton	Places of work ¹⁵	Places of work	Online shops	Online shops	Difference
	Count	Percent	Count	Percent	Percent
AG	31521	6.98%	102	12.72%	82.28%
AI	1423	0.31%	2	0.25%	-20.83%
AR	3679	0.81%	7	0.87%	7.18%
BE	57594	12.75%	73	9.10%	-28.60%
BL	12939	2.86%	27	3.37%	17.54%
BS	10741	2.38%	25	3.12%	31.11%
FR	14781	3.27%	7	0.87%	-73.32%
GE	24771	5.48%	10	1.25%	-77.26%
GL	2457	0.54%	3	0.37%	-31.22%
GR	14592	3.23%	18	2.24%	-30.52%
JU	4697	1.04%	0	0.00%	-100.00%
LU	21627	4.79%	58	7.23%	51.06%
NE	9359	2.07%	1	0.12%	-93.98%
NW	2817	0.62%	4	0.50%	-20.02%
OW	2588	0.57%	3	0.37%	-34.70%
SG	28075	6.21%	67	8.35%	34.43%
SH	4477	0.99%	9	1.12%	13.24%
SO	12898	2.86%	23	2.87%	0.45%
SZ	9934	2.20%	28	3.49%	58.77%
TG	14891	3.30%	32	3.99%	21.05%
TI	21547	4.77%	7	0.87%	-81.70%
UR	2139	0.47%	3	0.37%	-21.00%
VD	37207	8.24%	8	1.00%	-87.89%
VS	19848	4.39%	10	1.25%	-71.62%
ZG	10644	2.36%	37	4.61%	95.81%
ZH	74512	16.49%	238	29.68%	79.92%
Total	451758	100.00%	802	100.00%	

¹⁵ Data source for count of "places of work" is the publication "Eidgenössische Betriebszählung 2008 - Wirtschaftsstruktur. Landwirtschaft Industrie Dienstleistungen, Schweiz Grossregionen Kantone - Arbeitsstätten, Beschäftigte" (Bundesamt für Statistik 2009, p.10).

4 Online Shop Categories and Characteristics

In the following chapters the variables relating to main shop categories, payment options, delivery options, trust and shop features as well as user ratings of the online shops are analyzed descriptively.

Information relating the payment options is offered by both selected sources. This information was merged in the data extraction process as described in chapter 3.2

The information about the main shop categories is provided by ShoppingAktuell but not by toppreise.ch. To have a basis for the comparison of payment options offered in different online shop categories, all shops listed on toppreise.ch were visited to evaluate the main product category. The main shop category is selected according to their product catalog and shop description if such was provided.

4.1 Main Categories of Online Shops

The following main shop categories are introduced by ShoppingAktuell. In the paper based magazine each shop is listed once under one of the ten categories (cf. Figure A-7, p. 48). In the registration process on the ShoppingAktuell webpage (cf. Figure A-8, p. 49) an online shop provider has to decide under which main category she or he wants to register her/his online shop. Figure 7 shows the distribution of all 812 online shops of the sample on the ten main shop categories.

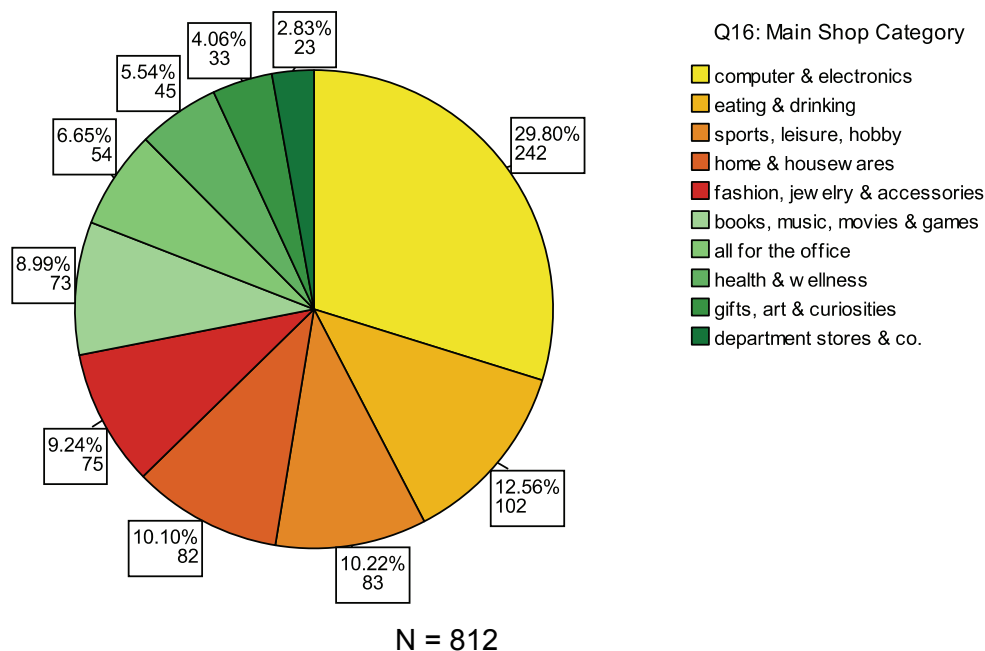


Figure 7: Pie chart online shop main categories (Q16)

The largest category is “computer & electronics”: 29.8 % of all listed shops are in this category. The next largest category is “eating & drinking”: to this category belong 12.56 % of all listed shops. This is less than half of the category “computer & electronics”.

In the next two categories “sports, leisure, hobby” and “home & house wares” each around 10 % of all shops are listed. All other categories contain less than 10 % of all listed shops. Table 6 shows that the largest four categories represent ca. two third (62.7 %) of all listed online shops.

Table 6: Online shop main categories all shops (Q16)

		Frequency	Percent	Cumulative Percent
Valid	computer & electronics	242	29.8%	29.8%
	eating & drinking	102	12.6%	42.4%
	sports, leisure, hobby	83	10.2%	52.6%
	home & house wares	82	10.1%	62.7%
	fashion, jewelry & accessories	75	9.2%	71.9%
	books, music, movies & games	73	9.0%	80.9%
	all for the office	54	6.7%	87.6%
	health & wellness	45	5.5%	93.1%
	gifts, art & curiosities	33	4.1%	97.2%
	department stores & co.	23	2.8%	100.0%
	Total	812	100.0%	

It must be mentioned here that the category “department stores & co” only contains 2.8 % of all shops. All other shops are focused more on a specific product assortment. A look at the web addresses¹⁶ of these shops shows that these are the online shops of well known “brick & mortar” department stores like “Manor” or of mail-order companies like “Ackermann” and “Neckermann”.

But there are also online shops like “Zentrumonline” (www.zentrumonline.com) in this category that have mainly stationary articles in their product catalogs, but also jewelry, erotic articles and some beauty products.

The category “department stores & co.” also contains online shops which do not belong to any other category. E.g. the two shops www.praktikus.ch and www.stromershop.ch offer products for electricians.

The following analysis examines the distribution of the main shop categories of the two selected sources. Figure 8 and

Table 7 show that there are huge differences.

53.0 % of the online shops listed on toppreise.ch are in the category “computer & electronics”. Only one other category is larger than 10 %: 13.6 % of the listed online shops are in the category “home & house wares”. Therefore, toppreise.ch can be seen as a price comparison platform for computer and electronic articles.

The largest category in ShoppingAktuell is “eating & drinking”: 18.1 % of the online shops listed are in this category. Only a little bit smaller is the category “computer & electronics” with 17.6 %. Two other categories have a share larger than 10 %: “sports, leisure, hobby” with 13.1 % and “fashion, jewelry & accessories” with 11.4 %.

¹⁶ www.ackermann.ch, www.bonprix.ch, www.heine.ch, www.jelmoli-shop.ch, www.macromarkt.ch, www.manor.ch, www.neckermann.ch, www.quelle.ch, www.super-discount.ch, www.tchibo.ch, www.teleshop.ch, www.adri.ch, <http://shoppingland.ch>, <http://alwacom.pcwebshop.ch>, www.ottos.ch/shopping/onlinehit, www.neues.ch, www.altreda.ch, <https://shop.angst-pfister.com>, www.manufactum.ch, www.heidiweb.ch, www.praktikus.ch, www.stromershop.ch, www.zentrumonline.com

Only the categories “books, music, movies & games” (toppreise.ch 8.9 % and ShoppingAktuell 9.2 %) and “department stores & co.” (toppreise.ch 3.3 % and ShoppingAktuell 2.8 %) show nearly the same percentage of online shops listed in the specific source. Nearly the same amounts of online shops are in the category “home & house wares”: toppreise.ch lists 46 shops while ShoppingAktuell lists 42.

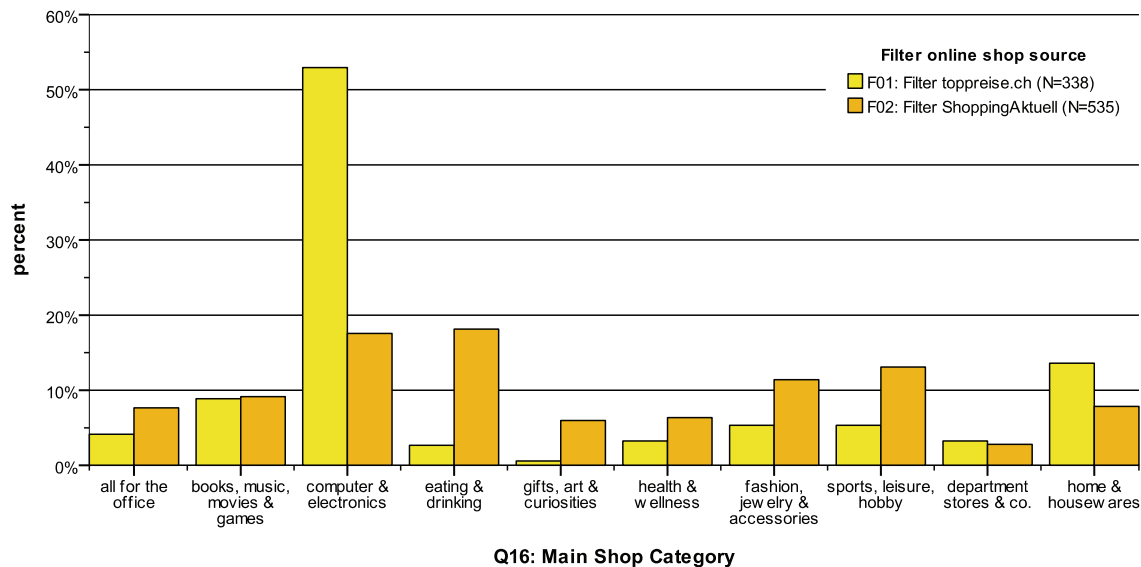


Figure 8: Comparison main shop categories in both sources (Q16 x F01 x F02)

Table 7: Comparison main shop categories in both sources (Q16 x F01 x F02)

			F01: Filter toppreise.ch	F02: Filter ShoppingAktuell
Q16: Main Shop Category	all for the office	Sum %	4.1%	7.7%
		Sum	14	41
	books, music, movies & games	Sum %	8.9%	9.2%
		Sum	30	49
	computer & electronics	Sum %	53.0%	17.6%
		Sum	179	94
	eating & drinking	Sum %	2.7%	18.1%
		Sum	9	97
	gifts, art & curiosities	Sum %	.6%	6.0%
		Sum	2	32
	health & wellness	Sum %	3.3%	6.4%
		Sum	11	34
	fashion, jewelry & accessories	Sum %	5.3%	11.4%
		Sum	18	61
	sports, leisure, hobby	Sum %	5.3%	13.1%
		Sum	18	70
	department stores & co.	Sum %	3.3%	2.8%
		Sum	11	15
	home & house wares	Sum %	13.6%	7.9%
		Sum	46	42

Total	Sum %	100.0%	100.0%
	Sum	338	535

4.2 Payment Options Offered by Online Shops

An online shop provider has to think about payment options. To agree on a payment is part of the agreement phase in the check out process (Schmid et al. 1995; Zbornik 1996; Selz & Schubert 1997). Therefore, each shop has to offer at least one payment option. Usually it is better to offer more than one payment option to attract customers who are using different payment methods.

In the registration form at ShoppingAktuell an online shop provider can register that the following payment options are possible: "payment on account", "advance payment", "cash on delivery", "cash on collection", "credit cards", "Postcard" (debit card of the company PostFinance), "PayPal" and "payment by mobile phone" (m-payment). Whether the provider offers additional payment options a customer can only see when visiting the shop in question.

At toppreise.ch an online shop provider can register with some more payment options. toppreise.ch distinguishes between different brands of credit cards. An online shop provider can select Visa, MasterCard, American Express and Diners Club. Additional payment options a provider can register are financing, payment on account for business customers (B2B), Click & Buy, EC-Direct, WIR Bank (B2B).

Figure 9 shows the offered payment options in online shops listed in selected sources in percent. "Payment on account" is the most offered payment option: 70.6 % of all 812 shops offer this option in the checkout process. The second most offered option is "advanced payment" with 51.2 %, third is "credit cards" with 40.9 %.

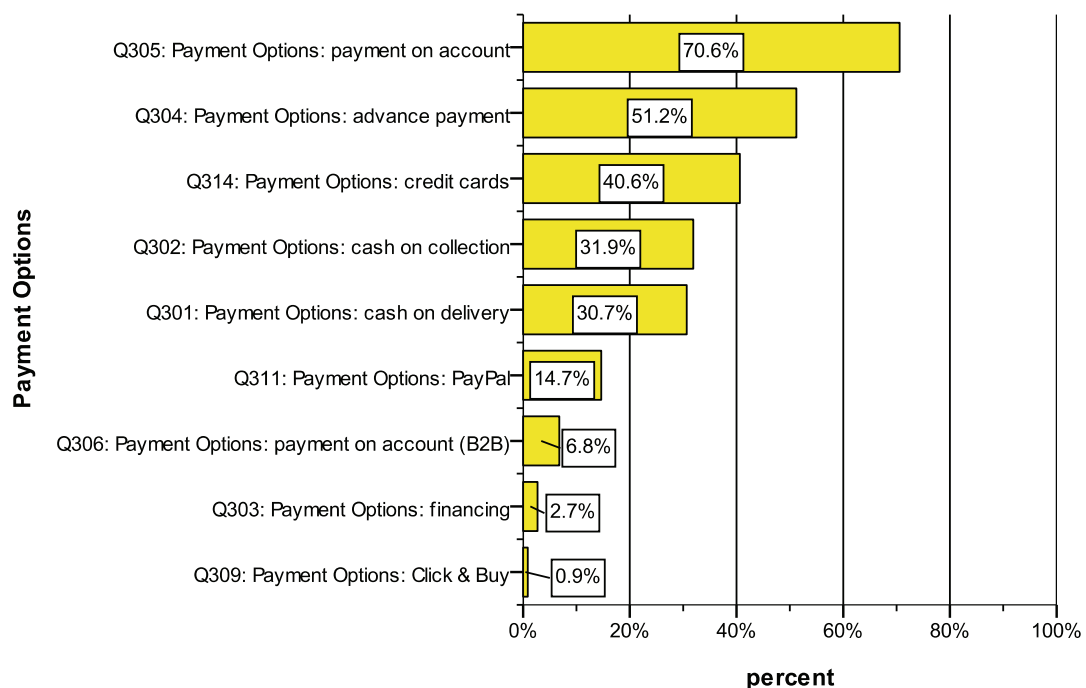


Figure 9: Offered payment options in online shops listed in selected sources (Q30)

Cash on collection is offered by 31.9 % of the online shops. This option is offered by online shop where a customer can pick up his ordered goods and pay by cash. In this case a real store exists and the online shop is only another channel of distribution. This multi-channel strategy is also called “clicks and bricks” (Otto & Chung 2000; Gulati & Garino 2000; Dennis et al. 2002).

“Cash on delivery” is the last of the offered payment options and is offered by more than 30 % of all listed online shops. “Cash on delivery” is in most cases the most expensive payment option. Online shops surcharge between 5.- and 30.- CHF for this payment option.

The payment options Postcard, EC-Direct and WIR Bank (B2B) are offered below 0.5 % and are removed from the analysis in this work.

Table 8 shows in addition to the percent the amount of the offered payment option in the online shops listed in the two selected sources.

Table 8: Offered payment options in online shops listed in selected sources (Q30)

	offered	offered
	Count	Percent
Q301: Payment Options: cash on delivery	249	30.67%
Q302: Payment Options: cash on collection	259	31.90%
Q303: Payment Options: financing	22	2.71%
Q304: Payment Options: advance payment	416	51.23%
Q305: Payment Options: payment on account	573	70.57%
Q306: Payment Options: payment on account (B2B)	55	6.77%
Q309: Payment Options: Click & Buy	7	.86%
Q311: Payment Options: PayPal	119	14.66%
Q314: Payment Options: credit cards	330	40.64%

N = 812

Table 9 shows the distribution of payment options per shop category. The highest values per category are colored in red. In most categories the payment option “payment on account” is offered most except for the category “computer & electronics”. In this category the payment option “advance payment” is the one offered most.

With the second most offered payment option (colored in blue) the situation is different. For five categories the option “credit cards” is the second most offered. For four categories it is the option “advance payment”. The category “computer & electronics” is different again: In this category the second most offered payment option is “cash on collection” followed by “cash on delivery” with almost the same percentage.

Table 9: The five most offered payment options by main shop categories (Q16 x Q30)

	cash on delivery	cash on collection	advance payment	payment on account	credit cards
	Percent	Percent	Percent	Percent	Percent
all for the office	13.0%	7.4%	31.5%	92.6%	24.1%
books, music, movies & games	19.2%	17.8%	34.2%	82.2%	46.6%
computer & electronics	59.1%	60.7%	82.6%	49.6%	51.2%
eating & drinking	8.8%	17.6%	24.5%	88.2%	26.5%
gifts, art & curiosities	24.2%	18.2%	42.4%	84.8%	45.5%
health & wellness	11.1%	31.1%	51.1%	80.0%	44.4%
fashion, jewelry & accessories	17.3%	13.3%	36.0%	77.3%	40.0%
sports, leisure, hobby	30.1%	20.5%	42.2%	74.7%	34.9%
department stores & co.	13.0%	13.0%	30.4%	87.0%	34.8%
home & house wares	26.8%	32.9%	52.4%	59.8%	36.6%

N = 812

In Figure 10 and Figure 11 the offered payment options between the two selected source toppreise.ch and ShoppingAktuell are compared. The charts reflect the statements about the main shop categories and payment options made before.

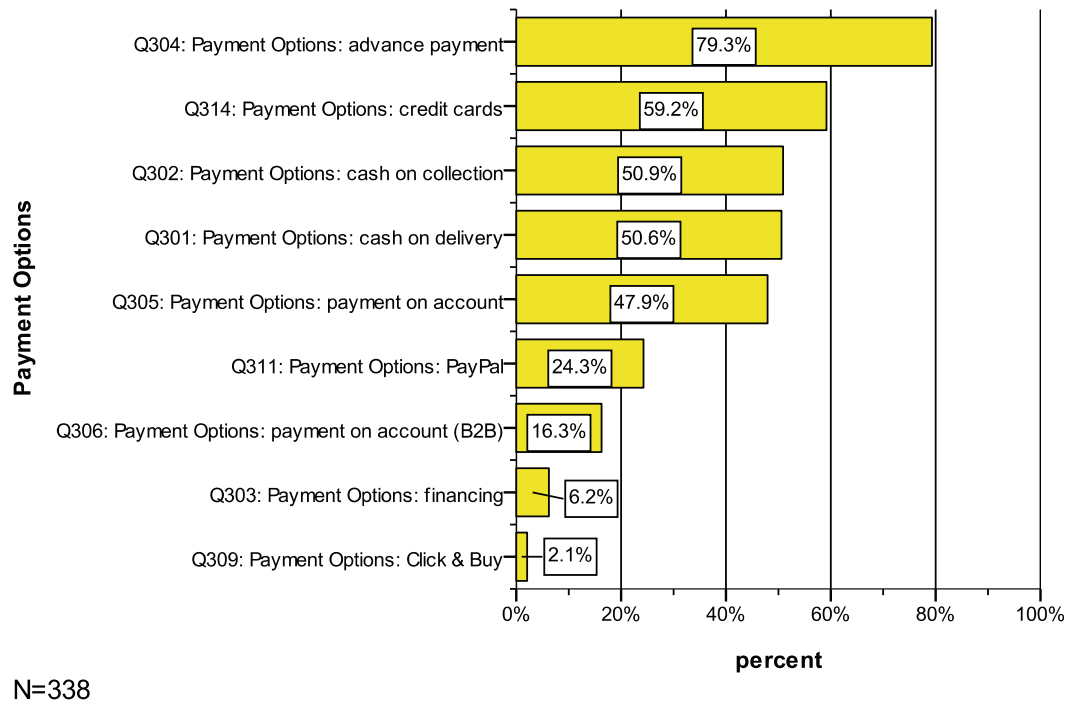


Figure 10: Offered payment options in online shops listed on toppreise.ch (F01 x Q30)

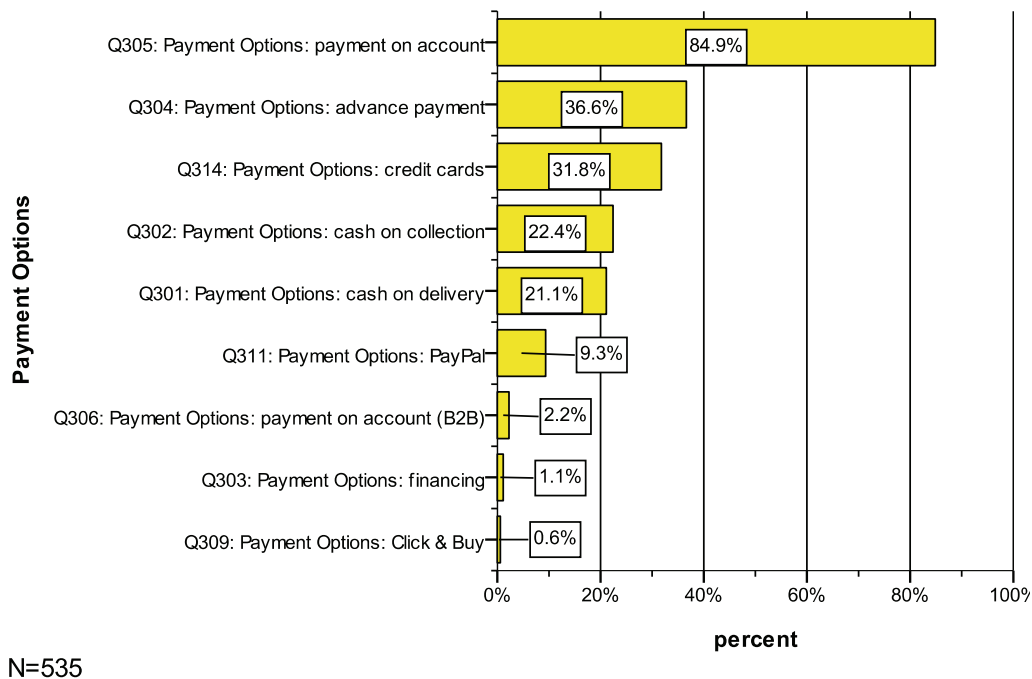


Figure 11: Offered payment options in online shops listed on ShoppingAktuell (F02 x Q30)

The five most offered payment options are still the same, but their order in the charts is completely different. On both charts the payment options “advanced payment”, “credit cards”, “cash on collection” and cash on delivery” appear in the same order but not at the same rank. The payment option “payment on account” is shifted from rank five in the chart for the online shops on toppreise.ch to rank one on the chart for ShoppingAktuell.

The last four payment options are still the same and appear in the chart in the same order.

Figure 10 shows that the payment option most offered in online shops listed on toppreise.ch is “advanced payment” with 79.3 % followed by “credit cards” with 59.2 %. The next three most offered payment options by online shops move around 50 %: “cash on collection” with 50.9 %, “cash on delivery” with 50.6 % and “payment on account” with 47.9 %.

The reason that “advanced payment” is the most offered payment option could lie in the cost and risk of this option for the online shop provider. Because toppreise.ch is a price comparison platform the prices for the products must be as low as possible. The payment option “advanced payment” is in most cases the cheapest, because a customer has to pay directly to the bank account of the provider before the goods are delivered. The risk of loss for the provider is nearly zero.

Figure 11 shows the percentage of payment options which are offered by the online shops listed on ShoppingAktuell. The payment options appear in the same order as in Figure 9. It should be mentioned here that the option “payment on account” is offered by 84.9 % of the online shops whereas all the other payment options are below 40 %.

A reason for this could be that when an online shop provider registers his or her shop on the ShoppingAktuell webpage, she or he marks with a cross “payment on account”, because this option is a very attractive payment option for most online shoppers. The ???exposure ??? for this option is on the side of the online shop providers; they know that they can still determine

special conditions with this option e.g. only very good customers are allowed to pay on account or customers whose creditability has been checked beforehand.

Table 10 and Table 11 show in addition to the percentage the amount of offered payment options in the online shops listed in the two selected sources.

Table 10: Offered payment options in online shops listed on toppreise.ch (F01 x Q30)

	offered Count	offered Percent
Q301: Payment Options: cash on delivery	171	50.59%
Q302: Payment Options: cash on collection	172	50.89%
Q303: Payment Options: financing	21	6.21%
Q304: Payment Options: advance payment	268	79.29%
Q305: Payment Options: payment on account	162	47.93%
Q306: Payment Options: payment on account (B2B)	55	16.27%
Q309: Payment Options: Click & Buy	7	2.07%
Q311: Payment Options: PayPal	82	24.26%
Q314: Payment Options: credit cards	200	59.17%

N = 338

Table 11: Offered payment options in online shops listed on ShoppingAktuell (F02 x Q30)

	offered	offered
	Count	Percent
Q301: Payment Options: cash on delivery	113	21.12%
Q302: Payment Options: cash on collection	120	22.43%
Q303: Payment Options: financing	6	1.12%
Q304: Payment Options: advance payment	196	36.64%
Q305: Payment Options: payment on account	454	84.86%
Q306: Payment Options: payment on account (B2B)	12	2.24%
Q309: Payment Options: Click & Buy	3	.56%
Q311: Payment Options: PayPal	50	9.35%
Q314: Payment Options: credit cards	170	31.78%

N = 535

4.3 Shipping Surcharges of Online Shops

Online shops that sell physical products normally ship these products to the customers by a parcel service. Often they have a contract with a company like the Swiss Post or another parcel service.

The charges for shipping are normally calculated depending on the parcel size and weight. For these expenditures the online shop provider is responsible. She or he can either surcharge this cost to the customer or not, or define a lump sum for an order which also includes packing and handling, or define a minimum order quantity: when this quantity is reached, the customer is not charged for shipping expenditures.

On toppreise.ch an online shop provider can state details about her or his shipping conditions. 308 from the 338 listed online shops did this. Table 12 shows the distribution of the different shipping surcharges for each main shop category. More than half of all online shops do surcharge expenditures to customers: 36.4 % charge "by weight" and 23.7 % charge a "lump sum". Online providers listed on toppreise.ch charge lump sums between 1.- CHF and 75.- CHF. The mean charge is 10.3 CHF.

Depending on the main shop category more or less different types of shipping surcharges are used by the online shops. E.g. 53.3 % of all online shops in the category "books, music, movies & games" do not charge expenditures to the customers. 28.6 % of the shops in this category are shipping "by weight" ("by weight" 10.7 % plus "by weight or free shipping at min. quantity" 17.9 %). 60.9 % of all online shops in the category "computer & electronics" charge shipping expenditures "by weight" ("by weight" 52.2 % plus "by weight or free shipping at min. quantity" 8.7 %).

A reason for this could be the different kind of products of the categories "books, music, movies & games" and "computer & electronics". Books, CDs or DVDs have often nearly the same sizes and weights. Products in "computer & electronics" often vary very much in size and weight.

Table 12: Shipping surcharges by online shop category for online shops listed on toppreise.ch (Q16 x Q200)

		Q200: Shipping Surcharges					Total
		free shipping	by weight	by weight or free shipping at min. quantity	lump sum	lump sum or free shipping at min. quantity	
all for the office	Count	0	2	6	4	2	14
	Percent	.0%	14.3%	42.9%	28.6%	14.3%	100.0%
books, music, movies & games	Count	15	3	5	5	0	28
	Percent	53.6%	10.7%	17.9%	17.9%	.0%	100.0%
computer & electronics	Count	23	84	14	34	6	161
	Percent	14.3%	52.2%	8.7%	21.1%	3.7%	100.0%
eating & drinking	Count	0	3	4	2	0	9
	Percent	.0%	33.3%	44.4%	22.2%	.0%	100.0%
gifts, art & curiosities	Count	0	1	0	1	0	2
	Percent	.0%	50.0%	.0%	50.0%	.0%	100.0%
health & wellness	Count	1	2	6	1	0	10
	Percent	10.0%	20.0%	60.0%	10.0%	.0%	100.0%
fashion, jewelry & accessories	Count	6	1	3	8	0	18
	Percent	33.3%	5.6%	16.7%	44.4%	.0%	100.0%
sports, leisure, hobby	Count	4	1	6	4	1	16
	Percent	25.0%	6.3%	37.5%	25.0%	6.3%	100.0%
department stores & co.	Count	0	3	0	7	0	10
	Percent	.0%	30.0%	.0%	70.0%	.0%	100.0%
home & house wares	Count	7	12	13	7	1	40
	Percent	17.5%	30.0%	32.5%	17.5%	2.5%	100.0%
Total	Count	56	112	57	73	10	308
	Percent	18.2%	36.4%	18.5%	23.7%	3.2%	100.0%

N=308

4.4 Payment Surcharges of Online Shops

As in the case of shipping surcharges payments can also cause expenditures. On toppreise.ch online shop providers can state their details about payment surcharges. 126 of the 338 listed online shops did this. Table 13 shows the distribution of the different payment surcharges for each main shop category. Categories where no online shop has given information about payment surcharges are not listed in this table.

Table 13: Payment surcharges by shop category of online shops listed on toppreise.ch (Q16x Q209 – Q211)

	credit card surcharge	advance payment discount	cash on delivery surcharge
	Count	Count	Count
all for the office	0	0	3
books, music, movies & games	0	1	2
computer & electronics	48	11	70
gifts, art & curiosities	1	0	1
sports, leisure, hobby	1	0	6
home & house wares	5	1	4
Total	55	13	86

N=126

Especially “cash on delivery” (COD) is an expensive payment option. Online shop providers listed on toppreise.ch charge between 5.- CHF and 30.- CHF for this payment option. The mean charge is 17.53 CHF. 70 of 179 online shop providers in the category “computer & elec-

tronics” have stated that they bill “cash on delivery” to their customers (in Table 9 one can see that 59.1 % or 106 online shops listed on toppreise.ch accept “cash on delivery” but 36 of them do not state “cash on delivery” surcharge on toppreise.ch). For a payment by credit card an issuer of credit cards normally charges a fee between 2 % and 3 % of the due amount. For products with low margins this fee is a lot. Therefore, 48 of 179 online shop providers in the category “computer & electronics” charge their customers with this fee when they pay by credit card.

4.5 Trust, System and Information Features Available in Online Shops

Trust features seem to be of little importance in Switzerland. Only two online shops have stated on toppreise.ch that they have a “Trusted Shops” or an “E-comtrust” certificate. And only 11.54 % of 338 (or 19.5 % of the 200 online shops that offer credit card payment) do offer secured credit card payment with “Verified by Visa”¹⁷ or “MasterCard SecureCode”¹⁸. A reason for this could be that not all credit card issuers in Switzerland support these trust features (e.g. PostFinance does not).

Table 14: Offered trust features in online shops listed on toppreise.ch (Q40)

	available	available
	Count	Percent
Q401: Certificates: Verified by Visa	39	11.54%
Q402: Certificates: MasterCard SecureCode	39	11.54%
Q403: Certificates: Trusted Shops	2	0.59%
Q404: Certificates: E-comtrust	2	0.59%

N = 338

Other information online shop providers can state for customers on toppreise.ch is about the usability of their system: whether they have a shop system (with features like product catalog and shopping basket), whether a search function is provided (if only a few products are offered such a function is not absolutely necessary), whether the shop system shows product availabilities and whether the communication with the online shop is encrypted by SSL (Secure Sockets Layer). Not surprisingly, however, is that 97.3 % of the online shops provide an e-commerce solution for to the customer. Most of these systems (94.7 %) provide a search function. Still 70.1 % provide product availabilities and around a third of all online shops use Secure Socket Layer¹⁹ (SSL) (64.2 %) to encrypt the communication between the online shop server and the customer’s computer.

Table 15: Offered system and information features in online shops listed on toppreise.ch (Q50)

	available	available
	Count	Percent
Q501: Features: shop system	329	97.34%
Q502: Features: availabilities	239	70.07%
Q503: Features: search function	320	94.67%
Q504: Features: SSL encryption	217	64.20%

N = 338

¹⁷ https://usa.visa.com/personal/security/vbv/index.html?ep=v_sym_verifiedbyvisa, accessed on 24 April 2010

¹⁸ <http://www.mastercard.com/us/personal/en/cardholderservices/securecode/index.html>, accessed on 24 April 2010

¹⁹ Transport Layer Security (TLS) and its predecessor, Secure Socket Layer (SSL), are cryptographic protocols that provide security for communications over networks such as the Internet. TLS and SSL encrypt the segments of network connections at the Transport Layer end-to-end. http://en.wikipedia.org/wiki/Transport_Layer_Security#SSL_versions_1.2C_2.2C_and_3, accessed on 24 April 2010

5 Ratings of Online Shops on toppreise.ch

5.1 Rating Criteria and the Four Phases of E-Commerce

The 12 rating criteria from toppreise.ch (cf. Figure 13) can be mapped to the four phases of e-commerce (Selz & Schubert 1997, p.49): information, agreement, fulfillment, and after sales. Figure 12 shows an example how the criteria could be mapped to the phases.

Depending on the rating criteria they are mapped to more than one phase. The most criteria are mapped to one or two phases. The criteria "service/accessibility" is mapped to all four phases. The criteria focus mainly on the first two phases and, therefore, on the online shop system itself.

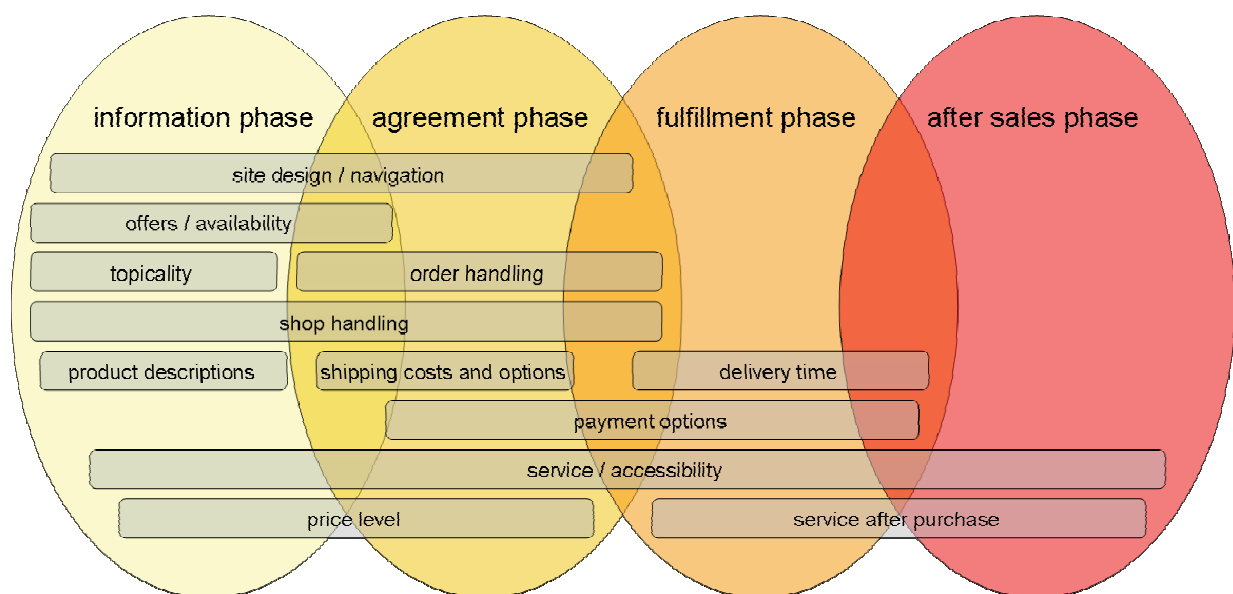


Figure 12: Rating criteria of toppreise.ch mapped to the four phases

5.2 Analysis of Ratings and Differentiation Potentials

toppreise.ch provides 12 rating criteria to users (cf. Figure 13). For every criteria a user on toppreise.ch can choose a mark between 1 (useless) and 6 (very good) or "n.i." (no indication).

250 of the 338 listed online shops received at least one user rating in which 126 online shops got more than 10 ratings. toppreise.ch display the average of the rating of the 12 criteria, when an online shop got at least 10 user ratings. Altogether, these 126 online shops got 17.098 single user ratings which flows into the average rating of the criteria.

Table 16 shows the summary statistics of the ratings for online shops listed on toppreise.ch. Overall, the online shops are on average rated with 5.24 (Q601: toppreise.ch Ratings: total

rating). If the scale can be interpreted like the Swiss grading system²⁰ this means a little bit better as just “good”.

Most of the 12 criteria present an average of more than 5.10 except for two criteria. These are the criteria “site design/navigation” (4.903) and “product descriptions” (5.078). This can be interpreted as a differentiation potential: Online shop providers can differentiate their shops from others if they make investments in these areas. Creating a good navigation for a large product assortment is a difficult task, which not all online shop providers managed successfully.

Table 16: Summary statistics of ratings for online shops listed on toppreise.ch (Q60)

	N	Mean	Median	Minimum	Maximum	Std. Deviation
Q601: toppreise.ch Ratings: total rating	126	5.240	5.300	3.7	5.8	.3731
Q603: toppreise.ch Ratings: site design / navigation	126	4.903	5.000	2.7	5.9	.5088
Q604: toppreise.ch Ratings: offers / availability	126	5.271	5.350	3.0	5.9	.4776
Q605: toppreise.ch Ratings: order handling	126	5.424	5.600	3.5	6.0	.5037
Q606: toppreise.ch Ratings: topicality	126	5.352	5.400	2.7	6.0	.4067
Q607: toppreise.ch Ratings: shop handling	126	5.186	5.250	2.8	5.9	.4823
Q608: toppreise.ch Ratings: product descriptions	126	5.078	5.100	2.7	5.9	.5698
Q609: toppreise.ch Ratings: delivery time	126	5.271	5.600	2.1	6.0	.7331
Q610: toppreise.ch Ratings: shipping costs and options	126	5.271	5.300	3.6	6.0	.4986
Q611: toppreise.ch Ratings: payment options	126	5.273	5.300	3.9	6.0	.4381
Q612: toppreise.ch Ratings: service / accessibility	126	5.223	5.500	2.2	6.0	.7153
Q613: toppreise.ch Ratings: service after purchase	126	5.158	5.400	1.3	6.0	.7730
Q614: toppreise.ch Ratings: price level	126	5.410	5.500	3.3	6.0	.4123

Differentiation potential can also be seen in criteria that have a relatively flat distribution of the ratings and therefore a high standard deviation. These criteria are “delivery time” (0.7331), “service/accessibility” (0.7153) and “service after purchase” (0.7730). A reason for this could be that the criteria concerning these services are based on human attention and humans are an expensive and rare resource for a company.

Practically no differentiation potential is possible in the criteria “order handling” (5.424, 0.5037), “topicality” (5.352, 0.4067) and “price level” (5.410, 0.4123). A reason could be that the online shop systems have similar and kind of standardized shopping baskets and check-out processes. The processes that support the topicality are often automated by a system integration with resellers or a company like cnet²¹. The prices are calculated according to the reseller list prices of the products and the margin an online shop provider configures in his ERP system (Stahl et al. 2009).

²⁰ 6=very good, 5=good, 4=sufficient, 3=insufficient, 2=poor, 1=very poor

²¹ <http://cnetcontentsolutions.com/main/default.aspx>, accessed on 24 April 2010

My Toppreise	
Personal settings	Info entries
Reviews	Shop ratings
Choose shop for rating	
Dealer	digitec AG <input type="button" value="OK"/>
Shop rating for digitec AG	
<p>For every criterion choose a mark between 😞 (1 = useless) and 😊 (6 = very good) or "n.i." (no indication) if you are not able to rate this criterion because of insufficient experience. For more details on a criterion simply click on its title.</p> <p> <input type="radio"/> 😞 <input type="radio"/> 😐 <input type="radio"/> 😊 <input type="radio"/> 😄 <input type="radio"/> 😍 <input type="radio"/> n.i. </p>	
Onlineshop / Website	
Site design / navigation	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How is the site's arrangement? > What about the overall clarity?	
Offers / availability	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How extensive is the assortment? > Do the shop offer availability / delivery time data?	
Order handling	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> Is the order procedure logically and intuitively? > How fast can an order be placed? > Possibility of one-click-orders? > SSL encryption of personal data?	
Topicality	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How up-to-date are the offers and prices?	
Shop handling	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How fast can you find the desired product? > How intuitive and easy is the shop handling?	
Product descriptions	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> Descriptions available to the products? > How detailed are they?	
Order procedure / conditions	
Delivery time	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> Does the dealer keep the promised delivery times?	
Dispatch costs and options	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> Various dispatch possibilities? > Are the shipping charges transparent and fair?	
Payment options	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How variable are the payment options? > Are the additional costs ok?	
Service / accessibility	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How fast do you get answers to your requests? > Is the customer sufficiently advised? > How's the shop accessibility (e-mail, phone, fax)?	
Service after purchase	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How is the complaints treatment? > Possibility of conversions? > How quickly and obliging are refund treatments?	
Price level	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
> How are the product prices?	
Comment (at least 20 words)	
Please write down your experiences with this shop in short form. 4 or 5 sentences should be enough but 20 words are the minimum.	
<div style="border: 1px solid black; height: 60px; width: 100%;"></div>	
<input type="button" value="send rating"/> <input type="button" value="Cancel"/>	
Top of page Print content Report an error	

Figure 13: Online form at toppreise.ch for rating an online shop

Figure 14 to Figure 26 show the distribution for each criterion in detail.

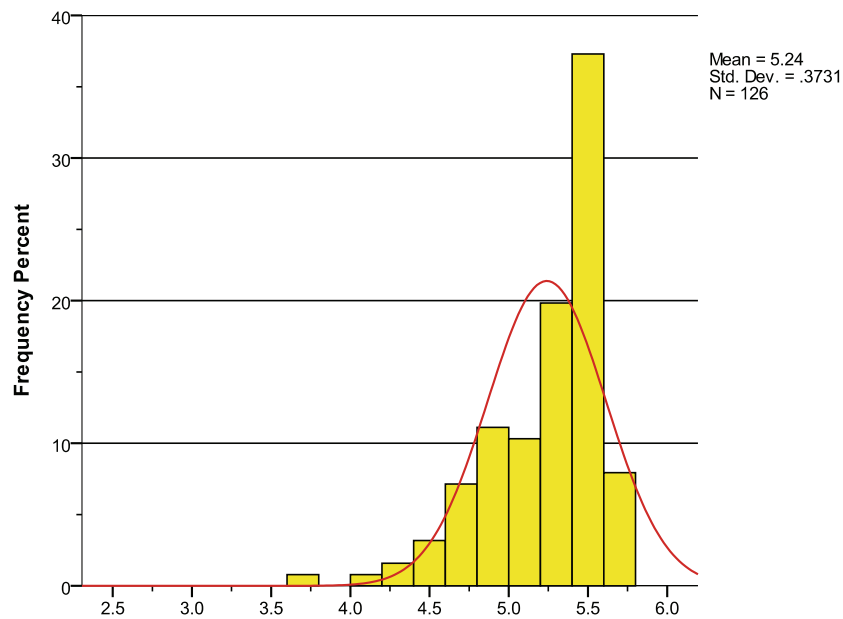


Figure 14: Online shop rating “total ratings” (Q601)

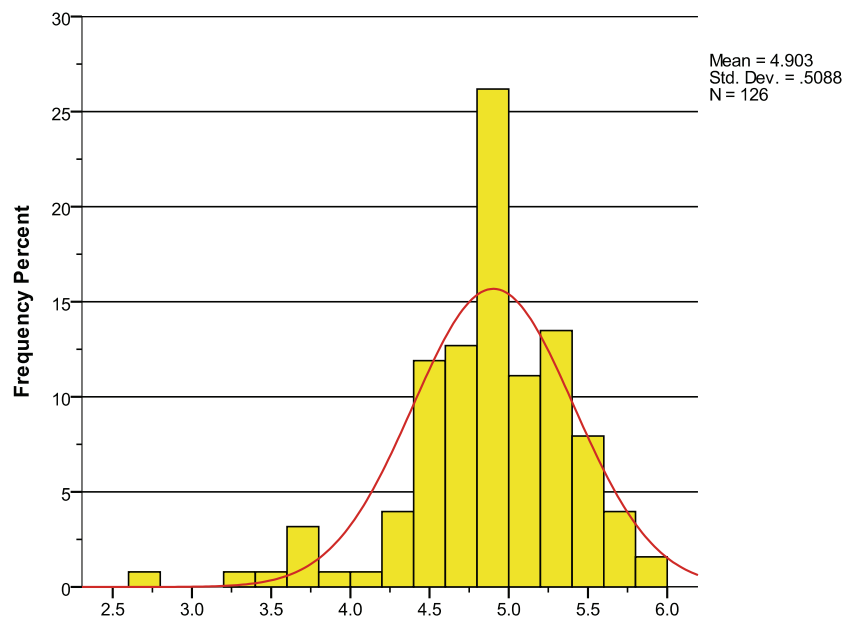


Figure 15: Online shop rating “site design / navigation” (Q603)

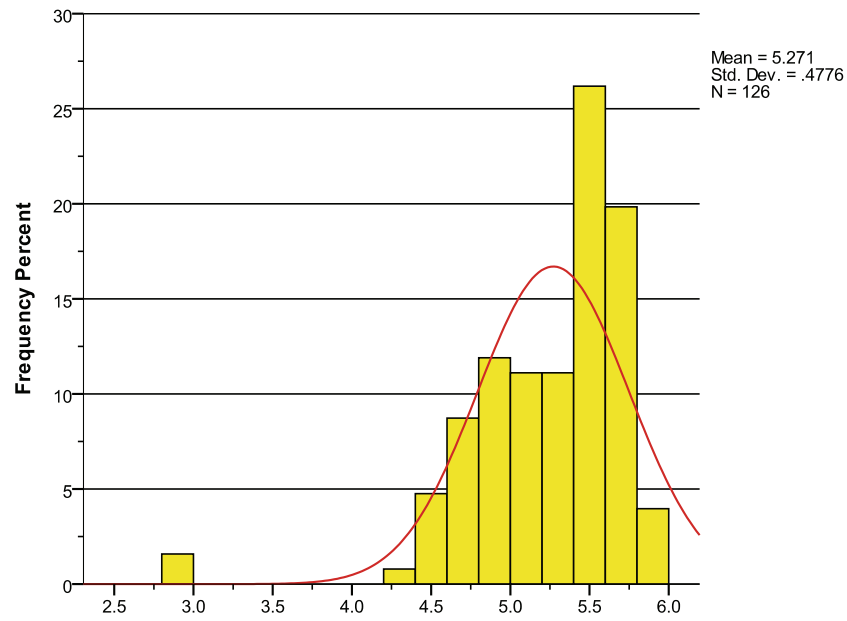


Figure 16: Online shop rating “offers/availability” (Q604)

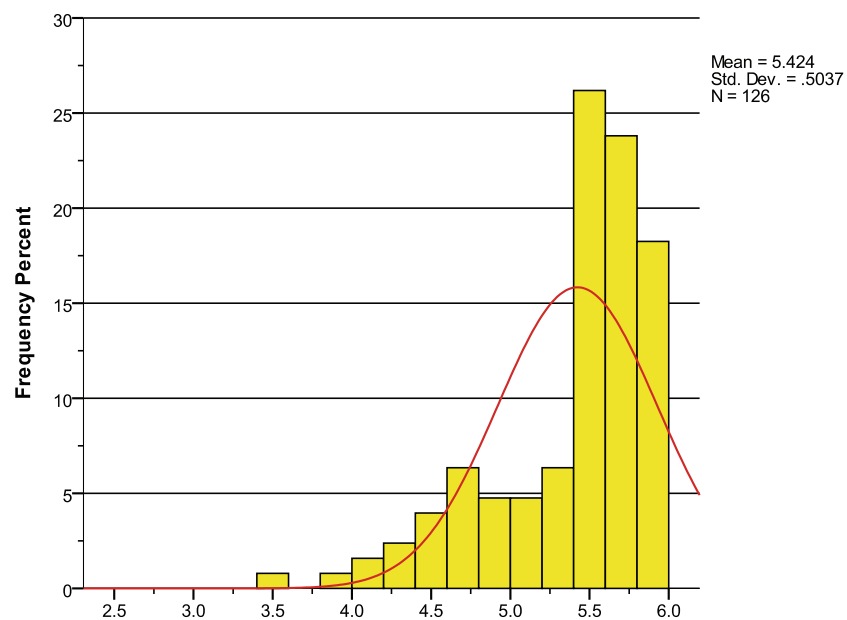


Figure 17: Online shop rating “order handling” (Q605)

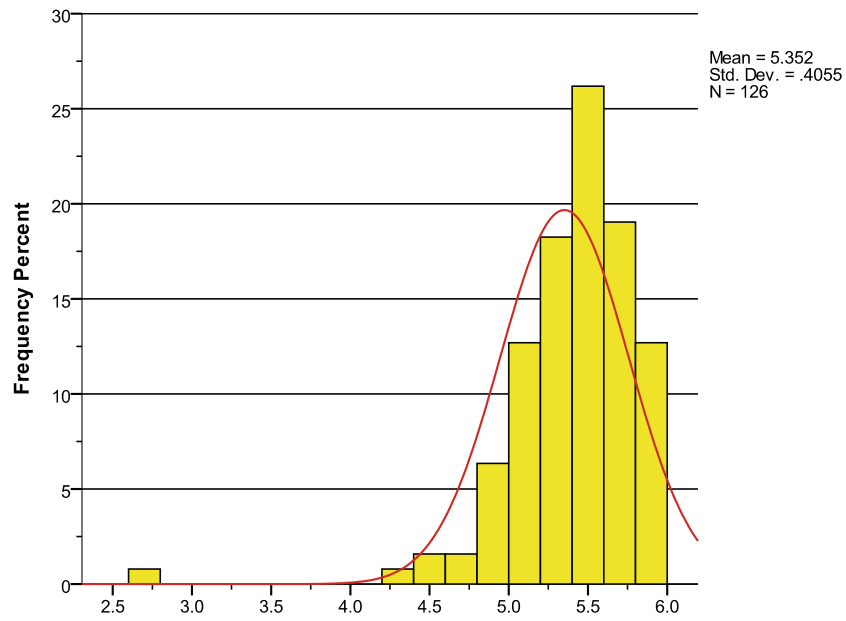


Figure 18: Online shop rating "site topicality" (Q606)

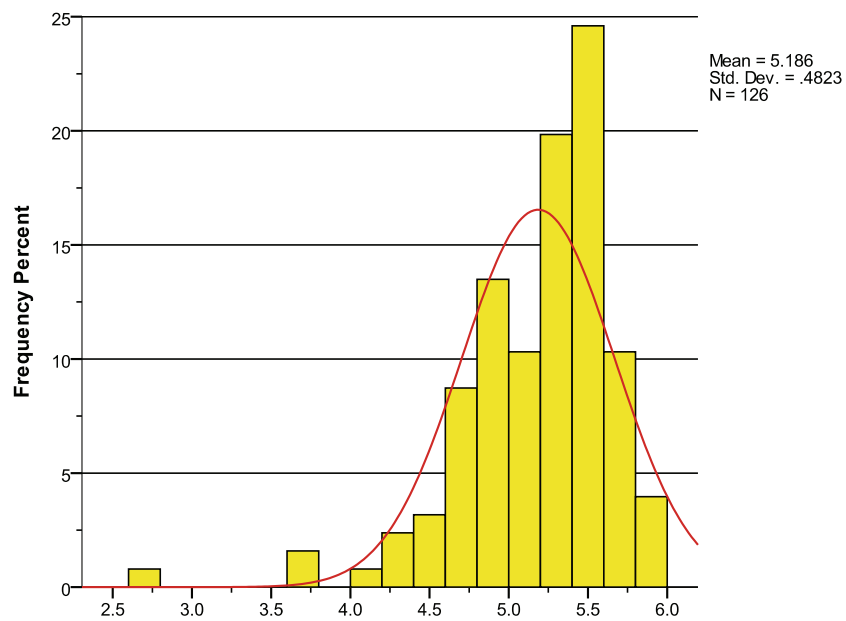


Figure 19: Online shop rating "shop handling" (Q607)

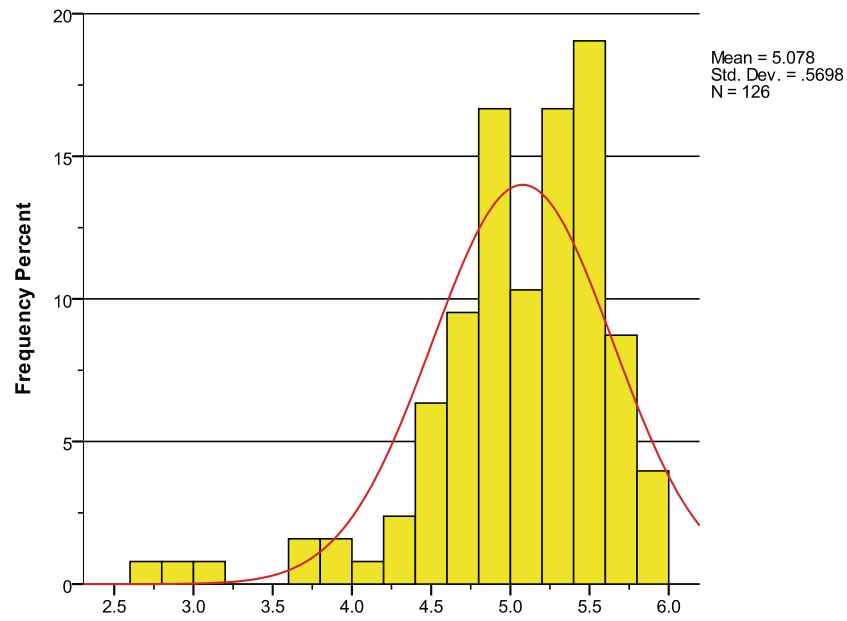


Figure 20: Online shop rating “product descriptions” (Q608)

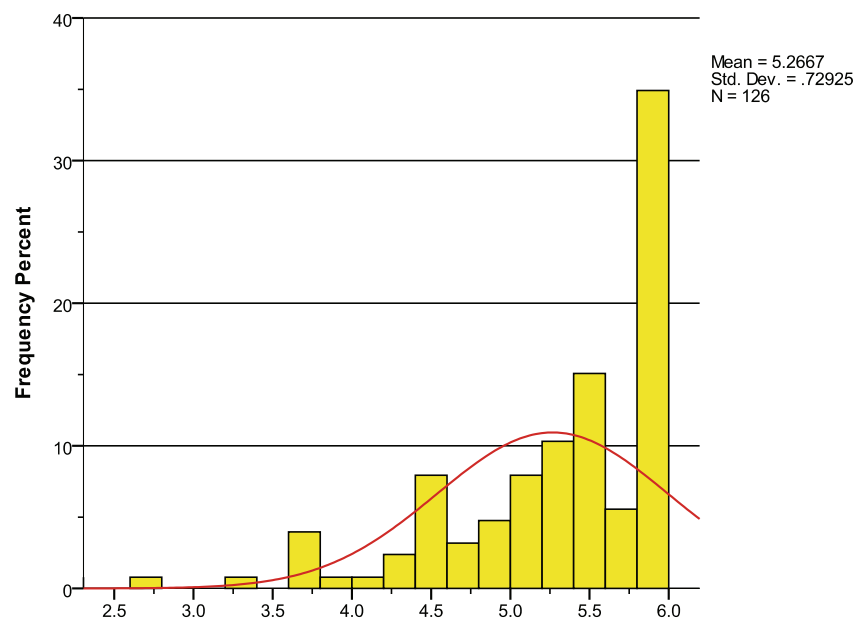


Figure 21: Online shop rating “delivery time” (Q609)

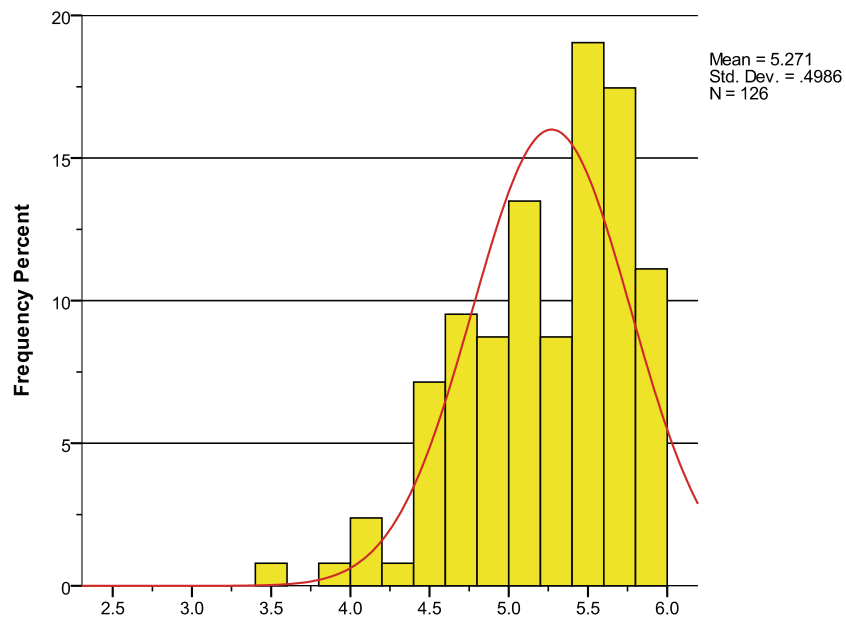


Figure 22: Online shop rating “shipping costs and options” (Q610)

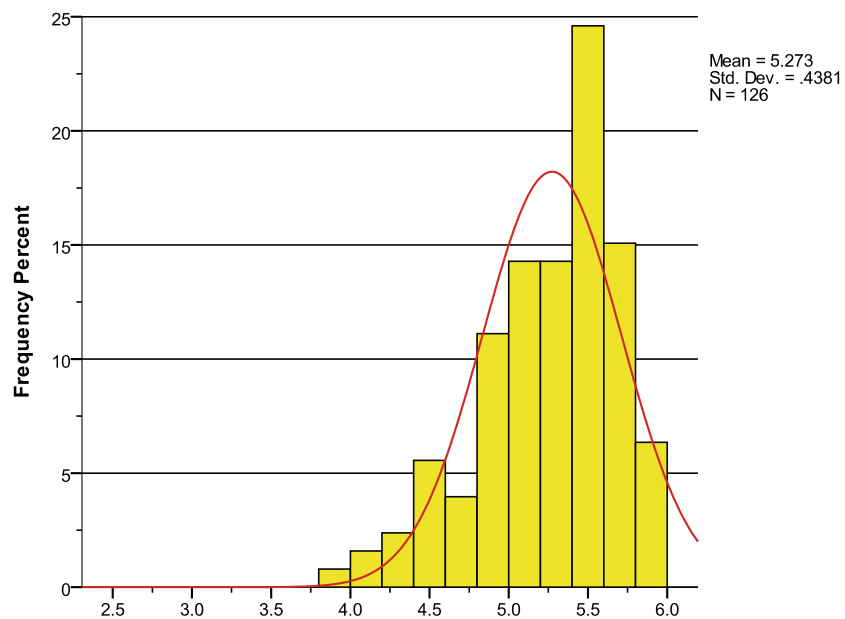


Figure 23: Online shop rating “payment options” (Q611)

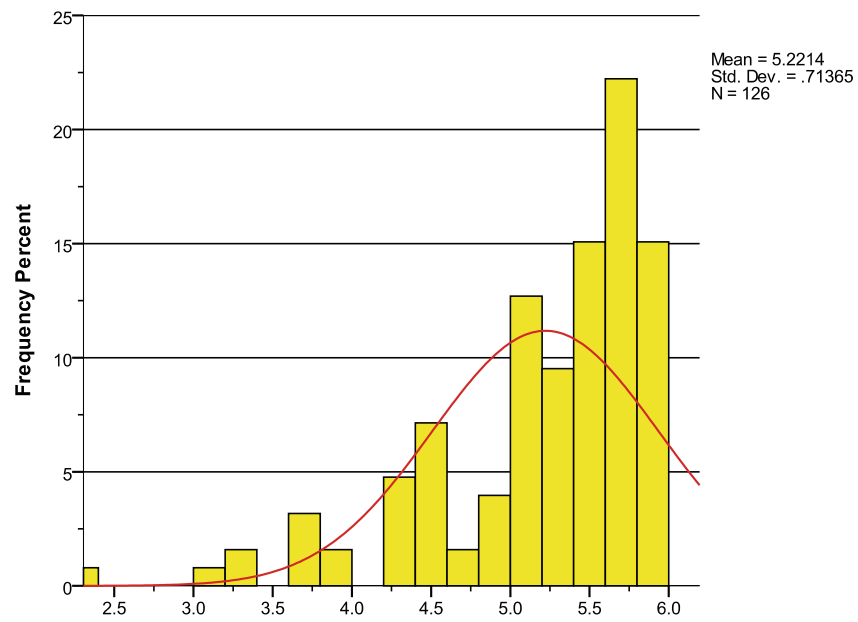


Figure 24: Online shop rating “service/accessibility” (Q612)

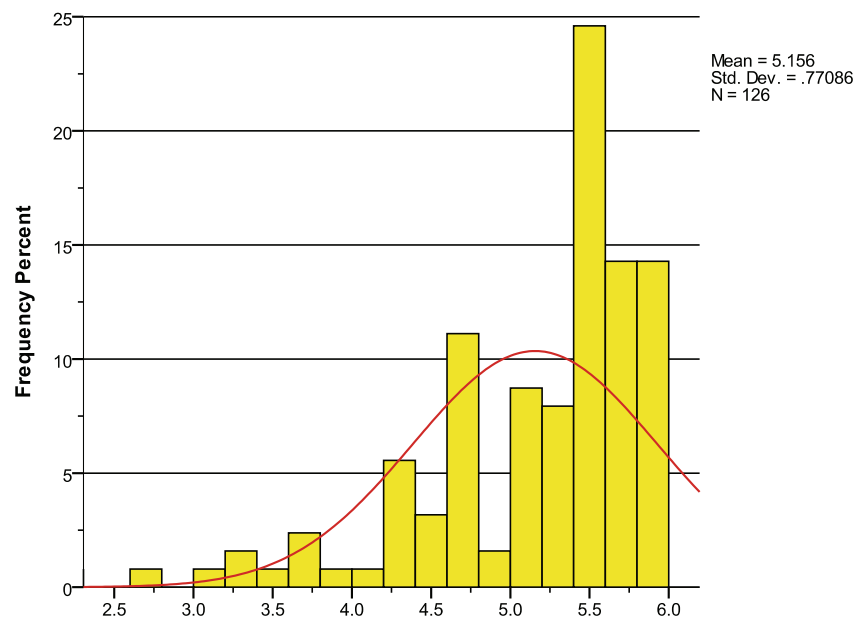


Figure 25: Online shop rating “service after purchase” (Q613)

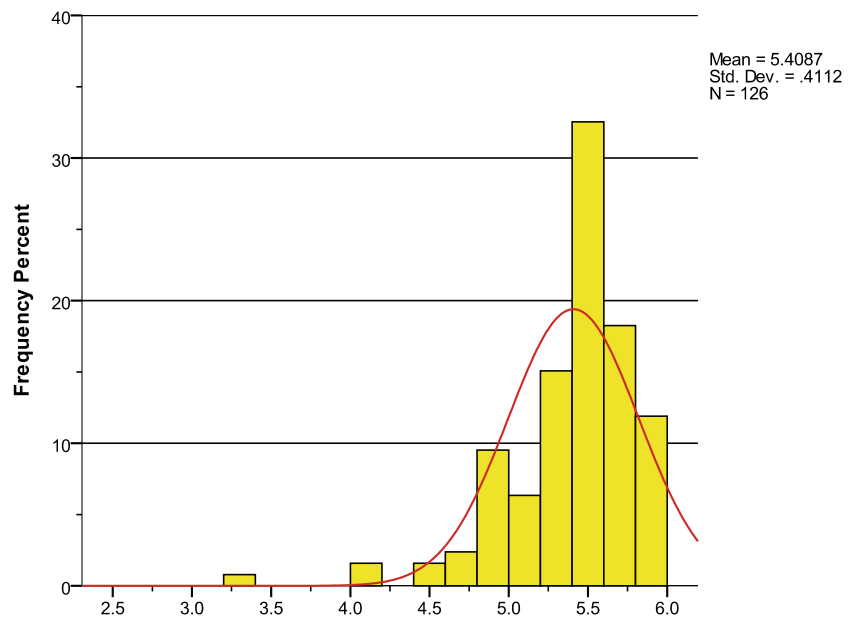


Figure 26: Online shop rating “price level” (Q614)

6 Exploratory Factor Analysis of the Rating Catalog

There is a whole number of different platforms with a different implementation of a rating function (Dannecker & Quade 2010, p.1279). The platforms vary primarily in the number of rating criteria. Other price comparison platforms than toppreise.ch offer between 4 to 6 rating criteria e.g. preisvergleich.ch which offer 4 and comparis.ch which offer 6 (cf. Appendix A, Figure A-2, p 44 and Figure A-4, p. 46). toppreise.ch ask users to rate 12 criteria.

The literature does not show any approach for the selection of the criteria catalog. Different questions arise: Are the 12 rating criteria at toppreise.ch really needed? Are there redundancies in the criteria? Do the criteria differentiate the online shops?

In the following chapters a methodical procedure is developed that shows how the quality (redundancy vs. differentiation) of a criteria catalog can be examined by using an exploratory factor analysis.

6.1 Extraction of Factors

For the examination of the necessity of the criteria catalog of toppreise.ch with 12 rating criteria the exploratory factor analysis is applied. This is an often employed procedure of the multivariate statistics to infer from a given set of variables the underlying latent factors. The procedure is based on the ascertainment of correlations and significances between given variables (Backhaus et al. 2006, pp.259-336). Factor analysis is a multistage process and relatively complex, because each stage must be evaluated individually. It is made sure that the factors extracted at the end have an appropriate meaningfulness.

In principle, toppreise.ch's 12 rating criteria are suitable for the approach with the factor analysis. At least six criteria would be necessary to guarantee at least three variables per factor.

Before the application of the exploratory factor analysis can be carried out the "subjects to variable ratio" has to be considered. The ratio of 126 online shops (subjects) with 12 criteria (variables) represents 10:1. This is according to Nunnally (1978, p. 421) the minimum required ratio for the implementation of an exploratory factor analysis.

In the analysis on hand the factors are extracted with SPSS Statistics with principal axis factoring and rotated for the allocation of the variables to the factors with the Varimax method. These parameters are the most commonly used because they provide reliable and well interpretable results (Backhaus et al. 2006, pp.259-336).

To get factors which are strong and standing behind the rating criteria listed in Figure 13, several factor analyses are executed. Single variables with a too low load or with a cross load on the factors are removed gradually from the next analysis (Costello & Osborne 2005, p.3).

For the extraction of the factors at the beginning all twelve existing rating criteria are included in the analysis as variables (cf. Figure 13). The following three variables are removed from the final factor analysis because of the above mentioned reason:

- offers/availability
- payment options
- price level

Using the variables left two factors were extracted according to the Eigenvalue (>1) (cf. Table 17) and the analysis of the Scree Plot (elbow at two factors, cf. Figure 27).

The KMO criterion (Kaiser & Rice 1974) of this analysis has a value of 0.859. This value is described as "meritorious" and therefore represents a very good value for the chosen sample.

The Cronbach alpha values for both extracted factors are each over 0.70 (Nunnally 1978, p. 245) and indicate, moreover, a stable and solid sample (cf. Table 17).

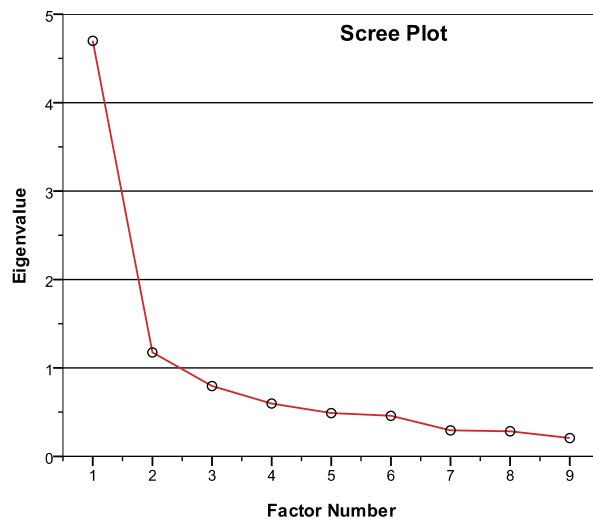


Figure 27 Screeplot to factor analysis

Table 17 Result of factor analysis (Q60)

	Cronbach's α / Eigenvalue Factorloading
Factor 1: reaction time / service orientation	$\alpha = 0.883$ Eigenvalue = 4.700
delivery time	.830
service / accessibility	.774
order handling	.760
service after purchase	.637
topicality	.608
shipping costs and options	.520
Factor 2: usability / information representation	$\alpha = 0.792$ Eigenvalue = 1.175
site design / navigation	.928
shop handling	.672
product descriptions	.524
extraction method: principal axis factoring rotation method: Varimax with Kaiser-normalization	

6.2 Interpretation of the Factors

This first purely syntactic result must be interpreted in another step and checked for logical cohesions. This is necessary to be able to make a statement with regard to the abstract meaning of the factors. The two factors standing behind the chosen variables (cf. Table 17) can be interpreted as follows:

- Factor 1: reaction time/service orientation: All the variables which are assigned to this factor refer to rating criteria which have to do either with the order handling of the online shop or with the service. In which the order handling can be considered a service of the provider.
- Factor 2: usability/information representation: All the variables behind this factor stand for rating criteria which either concern the handling of the online shop or have to do with the information offered in the online shop. The handling of an online shop is mostly supported by an open representation of the information.

The second factor is also supported by the findings in the descriptive analysis in chapter 5 where the two criteria “site design/navigation” and “product descriptions” show the potential for differentiation between online shops.

Contrary to the initial incorporation into two areas (“Online shop/Website” and “Order procedure/conditions”, cf. Figure 13) by the platform provider of toppreise.ch two new factors arise in which e.g. for factor 1 criteria can be found from both former areas. After the analysis on hand there is the possibility of reducing the 12 criteria to five and cancelling the two areas:

- offers/availability
- payment options
- price level
- reaction time/service orientation
- usability/information representation

These should be accompanied though by a further empirical observation.

7 Conclusion

Chapter 4 of this work focuses on the characteristics of online shops in Switzerland, especially on payment options and the differences between the main categories. Most of the differences can be explained by assumptions or other evidence, but some questions remain: e.g. why the selected sources only list very few online shops for the French and Italian speaking parts of Switzerland. Future work should focus on these parts of Switzerland and evaluate sources for online shops in these regions.

The selected sources do not provide information about other characteristics of online shops like web 2.0 functions, recommender systems or customer logins. http://www.gstatic.com/translate/sound_player.swf The occurrence of such characteristics in Swiss online shops could be further investigated by visiting online shops or by making a survey with the provider of the online shops in Switzerland.

Chapter 5 of this work focuses on the rating criteria and ratings provided by toppreise.ch. There are enough ratings available so that the law of large numbers for distributions can be applied. The values show that Swiss online shops are rated by users in each criterion on average “good” (5.0) to “good to very good” (5.5). A problem with these ratings could be that only the best shops are rated. Only 126 of the 335 online shops on toppreise.ch received enough ratings (10) for the detailed rating to be displayed on the portal. And 124 online shops were rated by one to nine users and the details of these ratings could be of interest too. Perhaps Swiss online shops are on average not as “good” as these ratings would make us believe. Nevertheless, if someone wants to enter e-commerce in an online shop he or she will be successful if she or he orients him/herself on the characteristics of the best of all online shops and not on the average online shop. The next step in this area should be to contact toppreise.ch and ask them for the rating data of these online shops.

As mentioned in chapter 6 there is no literature available on how to establish criteria to rate online shops or products. In chapter 6 it was shown that a part of the evaluation criteria may ultimately make the same statement. The criteria did not differentiate the online shops in many ways?????. E.g. it is not clear whether the different opinions within the criteria are of random or systematic nature, or whether the differences of opinion are simply too few????.

At the same time, a method was identified to allow providers of portals to check their rating criteria for redundancies. The goal should be to differentiate the online shops with as few rating criteria as possible to reach the broadest possible base of users who make a rating.

This is not possible with an extensive - even redundant – criteria catalog. It is important in this approach, however, to ensure that a reduction of the catalog always is accompanied by further empirical observations so that the interpretation of the resulting factor is correct. Of course, criteria can be considered as isolated test values or built into the criteria to substantiate the reasonableness of ratings.

It can be used to substantiate the validity of the construct. There are varied applications of factor analysis in the range of rating sites which help to improve these portals.

The methodological approach - described in chapter 5 of this work - to the identification of differentiated rating criteria will soon be the subject of further studies on other platforms applied such as hrs.de, and holidaycheck.de.

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Appendix A: Comparison of information about one shop in different portals

The screenshot shows the website guentstiger.ch with a dark blue header and sidebar. The main content area is white. The header includes navigation links: Preisvergleich, Testbericht, Reisen, Händlerinfos, and Hilfe. A red banner below the header says 'Willkommen bei guentstiger.ch - Ihrem neutralen Preisvergleich!'. The sidebar on the left has links for Home, TV | Video | Foto, Telefon & Co, HiFi | Audio, Computer, Haushalt, Specials, and Impressum. The main content area displays details for 'brack.ch - Brack Electronics AG'. It includes an address, contact information, and a list of services. A search bar is on the right. The footer contains copyright information and links to contact, terms, and press.

guentstiger.ch

Preisvergleich | Testbericht | Reisen | Händlerinfos | Hilfe

Willkommen bei guentstiger.ch - Ihrem neutralen Preisvergleich!

Home > Händlerdetails: brack.ch - Brack Electronics AG

Anschrift:
brack.ch - Brack Electronics AG
Hintermättlistrasse 3
5506 Mägenwil

Bestellhotline: 062/889 80 80
Fax: 062/889 80 81
eMail: info@brack.ch
HomePage: brack.ch - Brack Electronics AG
AGB: brack.ch - Brack Electronics AG

Shopinformationen:

<input type="checkbox"/> Kostenl. Hotline/Callback	<input checked="" type="checkbox"/> Nachnahme
<input type="checkbox"/> Newsletter	<input type="checkbox"/> Kreditkarte
<input checked="" type="checkbox"/> Suchmaschine	<input type="checkbox"/> Finanzkauf
<input type="checkbox"/> Katalog	<input type="checkbox"/> Zertifizierung
<input checked="" type="checkbox"/> Lagerbestandsanzeige	<input type="checkbox"/> SSL-Verschlüsselung
<input checked="" type="checkbox"/> Expressversand	<input checked="" type="checkbox"/> Warenkorb

Versand:
Kosten innerhalb der Schweiz:
Zahlung per Vorkasse oder Rechnung ab CHF 9.-;
Zahlung per Nachnahme ab CHF 24.-; Expressversand
ab CHF 24.-; gewichtsabhängig

jeweils zzgl. evtl. Nachnahmegebühren

Alle Preise sind Angaben des jeweiligen Anbieters inklusive Umsatzsteuer, zzgl. Versand
Alle Angaben ohne Gewähr


© 2004-2009 - [Kontakt](#) - [Nutzungsbedingungen](#) - [Mitmachen](#) - [Presse](#) - [Österreich](#)


Suche
GO!

28. März 2010

Figure A-1: Screenshot from guentstiger.ch with the details of brack.ch

Impressum


Land wechseln



Computer
Digitalkamera
Handys
Konsolen
Musik
Video & TV
Wellness
Sport & Freizeit
Bücher
Mehr Kategorien...
Shopverzeichnis

Suche
Kategorie

Sie sind hier » [Preisvergleich](#)

Informationen zu dem Shop Brack

Allgemeine Daten
Shopname: Brack
Anschrift:


Zum Shop

Artikel des Shops


Beschreibung:

Testergebnis: Übersicht


Gesamtbewertung:




Präsentation und Navigation:




Information und Service:



Bestellung und Kosten:



Lieferung:



Bewertung abgeben:

schlecht sehr gut

Präsentation und Navigation:

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

Information und Service:

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5


Bestellung und Kosten:

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5




Lieferung:

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

Kommentare von Usern:



Alle Preise inkl. MwSt. und ggf. zzgl. Versandkosten und weitere Gebühren der Shops. Dieser Preisvergleich ist kein Onlineshop. Den Vertragsschluss und die verbindliche Preisangabe finden Sie bei dem jeweiligen Shop. Alle Daten und Preise ohne Gewähr.


Impressum
Werbung buchen
Shopping
Topartikel

copyright 2010 | [preisvergleich.ch](#)

Figure A-2: Screenshot from preisvergleich.ch with the details of brack.ch

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Toppreise.ch - Das Schweizer Preisportal

Letztes Update: 28.03.10 / 14:37 Uhr

Produktkategorien

Computer Games HiFi/Audio Foto/Video/TV Telefon/GPS Haushalt DVD-Filme Sonstiges

Produktsuche

OK BestHit

Detailsuche

Häuptauswahl

Home
Neue Toppreise
Bücher-Preise
Musik-Preise
TopShop 2009
Hilfe / FAQ
Kontakt
Herstellerlinks
Mitmachen

Collect & Save

leer


Zu meiner C&S Liste

Partnerseiten


Tweaker.ch
Ocaholic.ch
Swissjabber.ch
Provider vergleichen
Xrise.ch DVD-Verleih
sipcall VoIP
Cablecom DSL
hostpoint.ch

Händlerdetails

Händlerliste > Brack Electronics AG



Kanton Aargau (AG)



Gesamtwertung: 5.5
(54 Bewertungen)

Onlineshop / Website

Shopdesign / Navigation	5.2
Angebot / Verfügbarkeit	5.6
Bestellabwicklung	5.9
Aktualität	5.7
Shophandhabung	5.5
Produktbeschreibungen	5.2

Bestellvorgang / Konditionen

Lieferzeit	5.9
Versandkosten/-optionen	4.8
Bezahlmöglichkeiten	5.8
Service / Erreichbarkeit	5.6
Service nach dem Kauf	5.8
Preisniveau	5.0

Bewerten Sie diesen Shop

Brack Electronics AG

Adresse: Brack Electronics AG
Hintermättlistr. 3
CH-5506 Mägenwil

HR-Nummer: CH-400.3.024.474-2
MwSt.-Abzug: Ja

Kontakt

Tel: 062 889 80 80
Fax: 062 889 80 81

E-Mail: verkauf@brack.ch
Homepage: www.brack.ch
AGB: www.brack.ch

Versandkosten

Versandkosten: CHF 8.00 zzgl. CHF 0.65 je Kilo

über 30kg (Stückgut): CHF 58.60
über 30kg (Palette): CHF 69.70

Nachnahme: zzgl. CHF 15.00
Express: zzgl. CHF 15.00

Bezahlung per Kreditkarte (Visa / Master): zzgl. 2.0%

Bezahlmöglichkeiten

VK Vorkasse
NN Nachnahme
RE Rechnung (Privat)
REG Rechnung (Gewerbe)
VISA Visa
Mastercard

Shop-Features

✓ Shopsystem ✓ Suchfunktion
✓ Lieferzeitanzeige ✓ SSL

Login

Username: michaelq
Passwort:
Zugang merken ☒ OK
Neu anmelden Vergessen?

Sprache / Währung

Aktuelle Wechselkurse:
1 CHF 0.7001 EUR
1 EUR 1.4283 CHF

iPhone & Android



Zuletzt gesucht

- > Vertical Computer...
- > Sitzsack
- > Lcd Tv
- > Schuhputz
- > HD TV 32
- > Oakley Gascan
- > Thermometer Infrarot
- > Tangent

Community

Toppreise @ Facebook

Toppreise @ Twitter

Seite weiterempfehlen

Newsletter


E-Mail: OK

Diese Seite bookmarken:



© 2010 Toppreise Preisvergleich Home | Sitemap | Tags | Hilfe / FAQ | Kontakt | Disclaimer / Impressum | Händleranmeldung
Preisvergleiche: Bücher-Preisvergleich | Musik-Preisvergleich

Figure A-3: Screenshot from toppreise.ch with the details of brack.ch




Das Leben wird einfacher


Sprache: [De](#) [Fr](#) [It](#) [En](#)
[Home](#) | [Über comparis.ch](#) | [Karriere](#) | [Medien](#) | [New sletter](#) | [Forum](#) | [FAQ](#) | [iPhone](#) | [Werbung](#) | [Infos](#) | [Suchen](#)


myComparis
 Nutzen Sie die Vorteile von myComparis!
 [Registrieren](#)
[Login](#)


Unterhaltungselektronik, IT, Mobile, Games, Bücher, Filme, Musik Brack Electronics AG

Einstieg Preisvergleich



[Unterhaltungs-Elektronik](#)


[IT & Mobile](#)


[Film, Musik, Games](#)


[Bücher, Hörbücher](#)

[Preisvergleich für unterwegs!](#)
 - für iPhone
 - für Google Handy



[zurück zum Resultat](#)


Händlerdetails zu Brack Electronics AG

Adresse: Brack Electronics AG Hintermättlistrasse 3 5506 Mägenwil	Zahlungsmöglichkeiten: <input checked="" type="checkbox"/> Bar (bei Abholung) <input checked="" type="checkbox"/> Vorkasse <input checked="" type="checkbox"/> Nachnahme <input checked="" type="checkbox"/> Rechnung <input checked="" type="checkbox"/> Visa <input checked="" type="checkbox"/> Mastercard	Versandkosten: Pauschale: 08.60 Preis pro Kilo: 00.70
Kontakt: 062 889 80 80 verkauf@brack.ch http://www.brack.ch Filialenübersicht		

[Allgemeine Geschäftsbedingungen von Brack Electronics AG](#)

Bewertung Brack Electronics AG

Gesamtnote :	✓ 5.6
Zahlungsarten :	✓ 6.0
Versand und Lieferung :	✓ 6.0
Bestellung :	✓ 6.0
Konsumentenrecht :	✓ 4.1
Kontaktkanäle :	✓ 6.0
AGBs und Informationen :	✓ 5.6



Brack Electronics AG Shops mit Abholmöglichkeit

Adresse: Brack Electronics AG Hintermättlistrasse 3 5506 Mägenwil	Öffnungszeiten: Mo - Fr 8.30 - 18.30
Kontakt : 062 889 80 89	

[Hinweis zur Bewertung](#)

[Sitemap](#) | [Privatsphäre & Datenschutz bei comparis.ch](#) | [Rechtliche Informationen](#) | [Impressum](#) | © 1996–2010 comparis.ch AG

Figure A-4: Screenshot from comparis.ch with the details of brack.ch



Figure A-5: Screenshot from eshops.ch with the details of brack.ch



Figure A-6: Scan from ShoppingAktuell with the details of brack.ch

3

<p>Sicheres Shopping 5</p> <p>Schwein gehabt! Sparkünstler dank Internet</p> <p>22</p> 	INHALT
<p>Mit dem Handy einkaufen 34</p> 	
<p>40 Erfolgreiche Online-Shops</p> <p>Das süsse Wunder</p>  <p>44</p>	
<p>Sommer Trends 48</p> 	
<p>Shopping-Clubs – so kommen Sie rein 60</p>	

ALLES FÜRS BÜRO	6
BÜCHER, MUSIK, FILME & SPIELE	10
COMPUTER & ELECTRONICS	14
ESSEN, TRINKEN & GENIESSEN	24
GESCHENKE, KUNST & KURIOSES	36
GESUNDHEIT & WELLNESS	44
MODE, SCHMUCK & ACCESSOIRES	48
SPORT, FREIZEIT & HOBBY	54
WARENHÄUSER & CO.	60
WOHNEN & HAUSHALT	62

IMPRESSUM Mai-Ausgabe 2009

HERAUSGEBER:
Baur Medien & Consulting

GESAMTLEITUNG:
Rolf A. Baur

PRODUKTION: Inge Hess **LAYOUT:** Otto Kohler **Korrektorat:** Jürg Casanova

REDAKTIONS- UND VERLAGSADRESSE:
Baur Medien, Kirchweg 129, 8102 Oberengstringen

INTERNET: www.ShoppingAktuell.ch **E-Mail:** shoppingaktuell@baurmedien.ch

DRUCK: Vogt-Schild Druck AG **AUFLAGE:** 240 000 Exemplare

© Alle Beiträge in ShoppingAktuell EXTRA sind urheberrechtlich geschützt.
Nachdruck sowie sonstige digitale oder analoge Verwendung nur mit schriftlicher Genehmigung des Verlags.

Figure A-7: Scan from ShoppingAktuell with the main product categories

VERZEICHNIS DER SCHWEIZER ONLINE-SHOPS

ShoppingAktuell EXTRA

Startseite Mediadaten Shop-Eintrag Mutation Impressum Kontakt AGB Preise Shopverzeichnis-Bestellung

Neueintrag Ihres Online-Shops

Hiermit beantrage ich eine kostenpflichtige Aufnahme in **ShoppingAktuell EXTRA** (Ausgabe 25. Mai 2009).

- Die mit * gekennzeichneten Felder müssen korrekt ausgefüllt werden.
- Sobald das Formular abgeschickt ist, erhalten Sie per E-Mail einen Kontrollausdruck Ihrer Daten, wie Sie in unserer Datenbank gespeichert wurden.

Shopname

Kategorie *

Shop URL 1 *

Shop URL 2

Shop Email *

Shop Beschreibung *

Eintragsart *
☐ 200 Zeichen lang ohne Screenshot
☐ 200 Zeichen lang mit Screenshot

URL für Screenshot

Zusätzlicher Shop-Tipp (nur zusammen mit einem Eintrag möglich) ☐ Ja, ich interessiere mich für folgenden Shop-Tipp:

Zahlungsmöglichkeiten im Shop *
☐ Rechnung
☐ Vorkasse
☐ Nachnahme
☐ Bar
☐ Kreditkarte(n)
☐ Postcard
☐ Paypal
☐ Handy

Angaben zur Firma
 Firmenname *
 Zusatz
 Strasse *
 Postfach
 PLZ *
 Ort *
 Land
 Telefon *
 Fax

Nur für Rückfragen von uns, erscheint nicht im Shop-Guide
 Anrede
 Kontakt-E-Mail*
 Sachbearbeiter Vorname*
 Sachbearbeiter Nachname*
 Bemerkung

Beachten Sie mit dem Eintrag unsere [Aufnahmekriterien](#).

Suchen

Quick-Link

Bitte Quick-Link eingeben

[Quick-Link so siehts](#)

Premium-Partner



VELO PLUS
Ausrüstung für Abenteuer

Partner-Links



CDQuick.ch
CD- und DVD-Kopier-Services
www.cdquick.ch



www.U-Shop.ch
alles für Fotografen
walimex pro



ICT
kommunikation



emex



DIE POST



PostFinance
Ermöglichen Sie Ihren Kunden das Bezahlen per Handy. Jetzt anmelden!



PostLogistics



ICTNEWS
Auflagenstärkster IT-Titel



TradeDoubler
Market like you mean it

Werbung

Baur Medien Alle Rechte vorbehalten © 2009 | [Impressum](#) | [Kontakt](#) | Professionelle Formulare mit [Chronoengine](#)

Figure A-8: Screenshot from ShoppingAktuell online registration form

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Appendix B: Factor Analysis

Correlation Matrix ^a									
	Q603: Toppreise Ratings: site design / navigation	Q605: Toppreise Ratings: order handling	Q606: Toppreise Ratings: topicality	Q607: Toppreise Ratings: shop handling	Q608: Toppreise Ratings: product descriptions	Q609: Toppreise Ratings: delivery time	Q610: Toppreise Ratings: shipping costs and options	Q612: Toppreise Ratings: service / accessibility	Q613: Toppreise Ratings: service after purchase
Correlation	1.000	.344	.343	.672	.538	.236	.321	.336	.338
Q603: Toppreise Ratings: site design / navigation									
Q605: Toppreise Ratings: order handling	.344	1.000	.576	.514	.362	.708	.460	.658	.472
Q606: Toppreise Ratings: topicality	.343	.576	1.000	.441	.365	.552	.435	.499	.436
Q607: Toppreise Ratings: shop handling	.672	.514	.441	1.000	.494	.400	.389	.446	.364
Q608: Toppreise Ratings: product descriptions	.538	.362	.365	.494	1.000	.381	.261	.519	.441
Q609: Toppreise Ratings: delivery time	.236	.708	.552	.400	.381	1.000	.511	.633	.535
Q610: Toppreise Ratings: shipping costs and options	.321	.460	.435	.389	.261	.511	1.000	.414	.393
Q612: Toppreise Ratings: service / accessibility	.336	.658	.499	.446	.519	.633	.414	1.000	.709
Q613: Toppreise Ratings: service after purchase	.338	.472	.436	.364	.441	.535	.393	.709	1.000
Sig. (1-tailed)									
Q603: Toppreise Ratings: site design / navigation		.000	.000	.000	.000	.004	.000	.000	.000
Q605: Toppreise Ratings: order handling	.000		.000	.000	.000	.000	.000	.000	.000
Q606: Toppreise Ratings: topicality	.000	.000		.000	.000	.000	.000	.000	.000
Q607: Toppreise Ratings: shop handling	.000	.000	.000		.000	.000	.000	.000	.000
Q608: Toppreise Ratings: product descriptions	.000	.000	.000	.000		.000	.002	.000	.000
Q609: Toppreise Ratings: delivery time	.004	.000	.000	.000	.000		.000	.000	.000
Q610: Toppreise Ratings: shipping costs and options	.000	.000	.000	.000	.002	.000		.000	.000
Q612: Toppreise Ratings: service / accessibility	.000	.000	.000	.000	.000	.000	.000		.000
Q613: Toppreise Ratings: service after purchase	.000	.000	.000	.000	.000	.000	.000	.000	

a. Determinant = .010

Figure B-1: Exploratory factor analysis Q60: Correlation and significance matrix

Inverse of Correlation Matrix									
	Q603: Toppreise Ratings: site design / navigation	Q605: Toppreise Ratings: order handling	Q606: Toppreise Ratings: topicality	Q607: Toppreise Ratings: shop handling	Q608: Toppreise Ratings: product descriptions	Q609: Toppreise Ratings: delivery time	Q610: Toppreise Ratings: shipping costs and options	Q612: Toppreise Ratings: service / accessibility	Q613: Toppreise Ratings: service after purchase
Q603: Toppreise Ratings: site design / navigation	2.141	-.096	-.085	-1.129	-.636	.391	-.199	.224	-.240
Q605: Toppreise Ratings: order handling	-.096	2.745	-.441	-.497	.270	-1.093	-.076	-.942	.273
Q606: Toppreise Ratings: topicality	-.085	-.441	1.734	-.159	-.089	-.320	-.203	-.043	-.141
Q607: Toppreise Ratings: shop handling	-1.129	-.497	-.159	2.270	-.216	-.032	-.147	-.108	.106
Q608: Toppreise Ratings: product descriptions	-.636	.270	-.089	-.216	1.785	-.231	.138	-.596	-.089
Q609: Toppreise Ratings: delivery time	.391	-1.093	-.320	-.032	-.231	2.577	-.463	-.324	-.330
Q610: Toppreise Ratings: shipping costs and options	-.199	-.076	-.203	-.147	.138	-.463	1.510	-.012	-.152
Q612: Toppreise Ratings: service / accessibility	.224	-.942	-.043	-.108	-.596	-.324	-.012	3.052	-1.296
Q613: Toppreise Ratings: service after purchase	-.240	.273	-.141	.106	-.089	-.330	-.152	-1.296	2.169

Figure B-2: Exploratory factor analysis Q60: Correlation matrix

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.859
Bartlett's Test of Sphericity Approx. Chi-Square	556.144
df	36
Sig.	.000

Figure B-3: Exploratory factor analysis Q60: KMO and Bartlett's test

Anti-image Matrices										
	Q603: Toppreise Ratings: site design / navigation	Q605: Toppreise Ratings: order handling	Q606: Toppreise Ratings: topicality	Q607: Toppreise Ratings: shop handling	Q608: Toppreise Ratings: product descriptions	Q609: Toppreise Ratings: delivery time	Q610: Toppreise Ratings: shipping costs and options	Q612: Toppreise Ratings: service / accessibility	Q613: Toppreise Ratings: service after purchase	
Anti-image Covariance	Q603: Toppreise Ratings: site design / navigation	.467	-.016	-.023	-.232	-.167	.071	-.062	.034	-.052
	Q605: Toppreise Ratings: order handling	-.016	.364	-.093	-.080	.055	-.155	-.018	-.113	.046
	Q606: Toppreise Ratings: topicality	-.023	-.093	.577	-.040	-.029	-.072	-.077	-.008	-.038
	Q607: Toppreise Ratings: shop handling	-.232	-.080	-.040	.440	-.053	-.005	-.043	-.016	.022
	Q608: Toppreise Ratings: product descriptions	-.167	.055	-.029	-.053	.560	-.050	.051	-.109	-.023
	Q609: Toppreise Ratings: delivery time	.071	-.155	-.072	-.005	-.050	.388	-.119	-.041	-.059
	Q610: Toppreise Ratings: shipping costs and options	-.062	-.018	-.077	-.043	.051	-.119	.662	-.003	-.046
	Q612: Toppreise Ratings: service / accessibility	.034	-.113	-.008	-.016	-.109	-.041	-.003	.328	-.196
	Q613: Toppreise Ratings: service after purchase	-.052	.046	-.038	.022	-.023	-.059	-.046	-.196	.461
Anti-image Correlation	Q603: Toppreise Ratings: site design / navigation	.759 ^a	-.040	-.044	-.512	-.326	.167	-.111	.088	-.111
	Q605: Toppreise Ratings: order handling	-.040	.852 ^a	-.202	-.199	.122	-.411	-.037	-.326	.112
	Q606: Toppreise Ratings: topicality	-.044	-.202	.947 ^a	-.080	-.051	-.151	-.125	-.018	-.073
	Q607: Toppreise Ratings: shop handling	-.512	-.199	-.080	.845 ^a	-.107	-.013	-.080	-.041	.048
	Q608: Toppreise Ratings: product descriptions	-.326	.122	-.051	-.107	.870 ^a	-.108	.084	-.255	-.045
	Q609: Toppreise Ratings: delivery time	.167	-.411	-.151	-.013	-.108	.869 ^a	-.235	-.115	-.139
	Q610: Toppreise Ratings: shipping costs and options	-.111	-.037	-.125	-.080	.084	-.235	.926 ^a	-.006	-.084
	Q612: Toppreise Ratings: service / accessibility	.088	-.326	-.018	-.041	-.255	-.115	-.006	.839 ^a	-.504
	Q613: Toppreise Ratings: service after purchase	-.111	.112	-.073	.048	-.045	-.139	-.084	-.504	.851 ^a

a. Measures of Sampling Adequacy(MSA)

Figure B-4: Exploratory factor analysis Q60: Anti image covariance and correlation matrix

Communalities		
	Initial	Extraction
Q603: Toppreise Ratings: site design / navigation	.533	.878
Q605: Toppreise Ratings: order handling	.636	.645
Q606: Toppreise Ratings: topicality	.423	.453
Q607: Toppreise Ratings: shop handling	.560	.593
Q608: Toppreise Ratings: product descriptions	.440	.419
Q609: Toppreise Ratings: delivery time	.612	.707
Q610: Toppreise Ratings: shipping costs and options	.338	.334
Q612: Toppreise Ratings: service / accessibility	.672	.677
Q613: Toppreise Ratings: service after purchase	.539	.479

Extraction Method: Principal Axis Factoring.

Figure B-5: Exploratory factor analysis Q60: Communalities

Total Variance Explained									
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.700	52.218	52.218	4.288	47.640	47.640	3.214	35.714	35.714
2	1.175	13.060	65.278	.899	9.985	57.625	1.972	21.911	57.625
3	.795	8.837	74.115						
4	.598	6.640	80.755						
5	.489	5.436	86.191						
6	.458	5.093	91.284						
7	.294	3.269	94.552						
8	.283	3.150	97.702						
9	.207	2.298	100.000						

Extraction Method: Principal Axis Factoring.

Figure B-6: Exploratory factor analysis Q60: Total variance explained

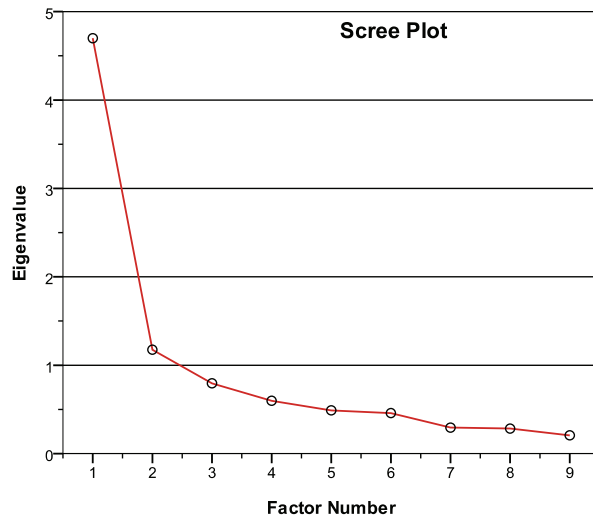


Figure B-7: Exploratory factor analysis Q60: Scree plot

Factor Matrix ^a			Rotated Factor Matrix ^a		
	Factor			Factor	
	1	2		1	2
Q612: Toppreise Ratings: service / accessibility	.797	-.206	Q609: Toppreise Ratings: delivery time	.830	.136
Q605: Toppreise Ratings: order handling	.775	-.212	Q612: Toppreise Ratings: service / accessibility	.774	.278
Q609: Toppreise Ratings: delivery time	.763	-.354	Q605: Toppreise Ratings: order handling	.760	.261
Q607: Toppreise Ratings: shop handling	.689	.344	Q613: Toppreise Ratings: service after purchase	.637	.270
Q613: Toppreise Ratings: service after purchase	.679	-.135	Q606: Toppreise Ratings: topicality	.608	.289
Q606: Toppreise Ratings: topicality	.665	-.104	Q610: Toppreise Ratings: shipping costs and options	.520	.252
Q608: Toppreise Ratings: product descriptions	.608	.220	Q603: Toppreise Ratings: site design / navigation	.129	.928
Q610: Toppreise Ratings: shipping costs and options	.572	-.085	Q607: Toppreise Ratings: shop handling	.375	.672
Q603: Toppreise Ratings: site design / navigation	.629	.695	Q608: Toppreise Ratings: product descriptions	.379	.524

Extraction Method: Principal Axis Factoring.

a. Attempted to extract 2 factors. More than 25 iterations required. (Convergence=.002). Extraction was terminated.

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Figure B-8: Exploratory factor analysis Q60: Factor matrix and rotated factor matrix

Factor Transformation Matrix		
Factor	1	2
1	.827	.563
2	-.563	.827

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

Figure B-9: Exploratory factor analysis Q60: Factor transformation matrix

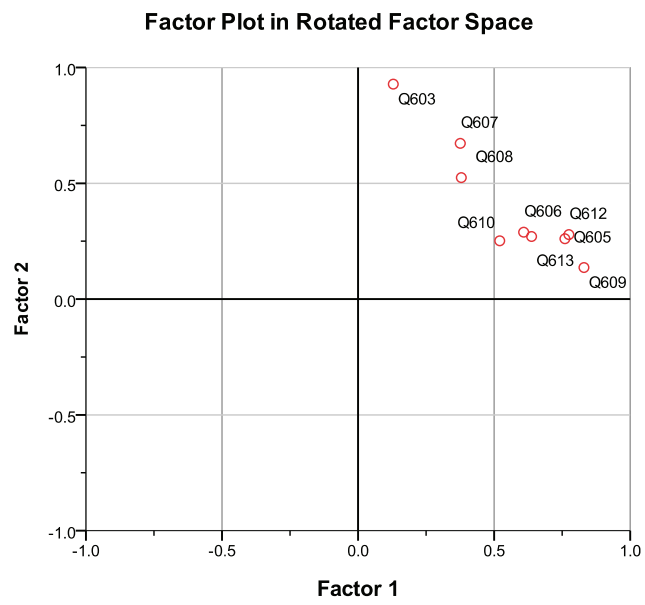


Figure B-10: Exploratory factor analysis Q60: Factor plot in rotated factor space

Appendix C: Data Set Variables

Name	Type	Label	Measure
ID	Numeric	ID: Primary Key	Ordinal
F01	Numeric	F01: Filter toppreise.ch	Nominal
F02	Numeric	F02: Filter ShoppingAktuell	Nominal
F03	Numeric	F03: Online shops with address outside CH and FL	Nominal
Q01	String	Q01: E-Shop Name	Nominal
Q02	String	Q02: Organisation Name 1	Nominal
Q03	String	Q03: Organisation Name 2	Nominal
Q04	String	Q04: P.O. Box	Nominal
Q05	String	Q05: Street	Nominal
Q06	Numeric	Q06: ZIP	Nominal
Q07	String	Q07: City	Nominal
Q08	String	Q08: Country	Nominal
Q09	Numeric	Q09: Kanton	Nominal
Q10	String	Q10: Phone	Nominal
Q11	String	Q11: Fax	Nominal
Q12	String	Q12: E-Mail	Nominal
Q13	String	Q13: Homepage	Nominal
Q14	String	Q14: HR-Number	Nominal
Q15	String	Q15: MwSt.-Abzug	Nominal
Q16	Numeric	Q16: Main Shop Category	Nominal
Q17	Numeric	Q17: Online Shop Source	Nominal
Q201	Numeric	Q201: Shipping Charges: free shipping	Nominal
Q202	Numeric	Q202: Shipping Charges: free shipping on orders from	Scale
Q203	Numeric	Q203: Shipping Charges: lump sum	Scale
Q204	Numeric	Q204: Shipping Charges: by weight	Nominal
Q205	Numeric	Q205: Shipping Charges: markup for small-volume purchases	Scale
Q206	Numeric	Q206: Shipping Charges: small-volume up to amount	Scale
Q207	Numeric	Q207: Shipping Charges: credit card surcharge	Nominal
Q208	Numeric	Q208: Shipping Charges: advance payment discount	Nominal
Q209	Numeric	Q209: Shipping Charges: cash on delivery surcharge	Scale
Q210	Numeric	Q210: Shipping Charges: pay on invoice surcharge	Nominal
Q301	Numeric	Q301: Payment Options: cash on delivery	Nominal
Q302	Numeric	Q302: Payment Options: cash on collection	Nominal
Q303	Numeric	Q303: Payment Options: financing	Nominal
Q304	Numeric	Q304: Payment Options: advance payment	Nominal
Q305	Numeric	Q305: Payment Options: payment on account	Nominal
Q306	Numeric	Q306: Payment Options: payment on account (B2B)	Nominal
Q307	Numeric	Q307: Payment Options: Diners Club	Nominal
Q308	Numeric	Q308: Payment Options: American Express	Nominal
Q309	Numeric	Q309: Payment Options: Click & Buy	Nominal
Q310	Numeric	Q310: Payment Options: Mastercard	Nominal
Q311	Numeric	Q311: Payment Options: PayPal	Nominal
Q312	Numeric	Q312: Payment Options: Postcard	Nominal
Q313	Numeric	Q313: Payment Options: Visa	Nominal
Q314	Numeric	Q314: Payment Options: credit cards	Nominal
Q315	Numeric	Q315: Payment Options: EC-Direct	Nominal
Q316	Numeric	Q316: Payment Options: mobile payment	Nominal
Q317	Numeric	Q317: Payment Options: WIR Bank (B2B)	Nominal
Q401	Numeric	Q401: Certificates: Verified by Visa	Nominal
Q402	Numeric	Q402: Certificates: MasterCard SecureCode	Nominal
Q403	Numeric	Q403: Certificates: Trusted Shops	Nominal
Q404	Numeric	Q404: Certificates: E-comtrust	Nominal
Q501	Numeric	Q501: Features: shop system	Nominal

Name	Type	Label	Measure
Q502	Numeric	Q502: Features: availabilities	Nominal
Q503	Numeric	Q503: Features: search function	Nominal
Q504	Numeric	Q504: Features: SSL encryption	Nominal
Q601	Numeric	Q601: toppreise.ch Ratings: total rating	Scale
Q602	Numeric	Q602: toppreise.ch Ratings: votes	Scale
Q603	Numeric	Q603: toppreise.ch Ratings: site design / navigation	Scale
Q604	Numeric	Q604: toppreise.ch Ratings: offers / availability	Scale
Q605	Numeric	Q605: toppreise.ch Ratings: order handling	Scale
Q606	Numeric	Q606: toppreise.ch Ratings: topicality	Scale
Q607	Numeric	Q607: toppreise.ch Ratings: shop handling	Scale
Q608	Numeric	Q608: toppreise.ch Ratings: product descriptions	Scale
Q609	Numeric	Q609: toppreise.ch Ratings: delivery time	Scale
Q610	Numeric	Q610: toppreise.ch Ratings: shipping costs and options	Scale
Q611	Numeric	Q611: toppreise.ch Ratings: payment options	Scale
Q612	Numeric	Q612: toppreise.ch Ratings: service / accessibility	Scale
Q613	Numeric	Q613: toppreise.ch Ratings: service after purchase	Scale
Q614	Numeric	Q614: toppreise.ch Ratings: price level	Scale
FAC1_1	Numeric	FAC1_1: toppreise.ch Ratings: order processing / services	Scale
FAC2_1	Numeric	FAC2_1: toppreise.ch Ratings: usability / information presentation	Scale