

Customized Information Supply in the B2C Online Retail Business – Competitive Differentiator or Commodity?

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In online-retailing social media, mobile and advanced analytics have become standard means for creating a seamless, personalized customer experience comprising multiple channels. Online-retailers realize that personalized communication, tailored product information, and individualized product recommendations are a necessary precondition to reaching the growing number of digitally skilled customers. Today the IT service market offers a broad spectrum of highly standardized solutions on premise and cloud based that can be readily integrated with a retailer's e-commerce applications. The widespread availability of those solutions questions whether a customized information supply can serve as a differentiator in the highly competitive online-retail business. We will answer this question by taking a closer look at classic theories of strategic management and current empirical studies related to this topic. Considering internal resources as well as environmental factors this article examines the circumstances under which online-retailers could gain a sustained competitive advantage through customized information supply.

Key words: e-commerce, customer data management, information needs, competitive advantage

Introduction

The internet has become an established distribution channel. Compared to traditional retail businesses, the key benefits of shopping online are a wider range of products, attractive prices, independence from opening hours as well as lower transaction and information costs (Wirtz 2016). But the competitive pressure is high in the online-retail business. For a long time retailers focused on operational effectiveness and lower costs to be able to provide the customers with the lowest price in the market, thus leading to the problem that “[c]ustomers end up making decisions based on price, undermining industry profitability“ (Porter 2001, p. 71). Hence retailers are looking for other ways of gaining a competitive advantage. Thereby customer orientation is getting more and more attention. But customer orientation to date often is limited to customized product recommendations (Grant et al. 2013). Thereby many retailers are losing sight of a major challenge in e-commerce: the impersonal shopping experience and information supply (Grant et al. 2013). From the customers' point of view it is a handicap that the right information in an online-store are often difficult to find to fulfill the perceived information needs and to make a satisfying buying decision. So the online buying process is affected by information asymmetry between consumer and seller (McLachlan 2004). Information asymmetry mainly refers to uncertainty regarding the product and the behavior of the seller (Paschelke et al. 2002). Through information seeking (screening), customers try to reduce their uncertainty when buying online (Paschelke et al. 2002). To lower a customers' uncertainty to an acceptable level retailers have implemented a wide range of information signals (Bettman 1972) like guarantees or seals of approval, for example. With regard to the supplied information to date online-retailers often focus on the product as the determining factor when it comes to the question which information they should offer to their customers. That's why on the internet products are offered in a more or less universal and standardized way. But in the online buying process, the information supplied by the retailer isn't of the same importance for each individual customer. For example, some customers value extensive product information and objective test results provided by reliable sources like a public agency or an industry expert. In contrast, other customers' buying decision might depend on experiences gained with the product by family members and friends. In a traditional retail store a skilled salesperson can identify (or at least guess) the customers' information needs and act accordingly by providing additional product information or emphasizing specific information. In the offline retail world the salesperson acts similar to an information filter that enables customers to focus on information relevant to the buying decision. However, in e-commerce this filter is often missing. Every prospective customer visiting an online store

is provided with the same informational content, no matter the relevance for the individual buying decision. In online retailing there seems to be no adequate complement to salespersons' advisory skills in the offline retail business customers may utilize to make an informed buying decision.

But if one takes a look at the possibilities that are open to online-retailers to collect data about the behavior of their customers, it shows a huge potential. Every customer leaves digital traces when visiting an online-store. Online-retailers could use web analytics software to collect and analyze these digital traces like clickstream, path to purchase or referring website, for example (Montgomery et al. 2004; Walter 2016). Combined with data from other sources (e.g. market research) and by the use of software solutions that can be integrated with an existing e-commerce application, online-retailers are able to offer a custom-tailored information supply with the objective of reducing information overload and lowering customer uncertainty to aid customer decisions and increase sales (Ansari et al. 2003). In this context the term 'customization' is understood as the dynamic adjustment of informational content (product-related information, navigation and design) to the individual needs of a customer. Even though it seems that to date only a few online-retailers are dealing with such measures, the increasing availability of adequate software solutions as well as the fact that nearly every online-retailer possesses more or less detailed data about their customers scrutinizes whether a customized information supply can serve as a differentiator in the highly competitive online-retail business. As customer-data is only a necessary but not a sufficient condition for a customized information supply, we are going to answer this question by taking a resource-based look at the competence to gain information about customer needs, which is the basis for the discussed measures. Moreover we are going to analyze the strategic potential of a customized information supply from a market-based point of view. For this purpose and for the time being we will discuss if and to what extent classic approaches of strategic management are applicable in this context. This paper contributes to the literature by analyzing the strategic potential of a custom-tailored information supply in online-stores to gain a sustained competitive advantage.

The applicability of classical strategic concepts in the context of e-commerce

Different theoretical approaches deal with the question of how organizations can gain and sustain competitive advantages. Amongst these approaches the market- and the resource-based view have gained prominence. The market-based view primarily focusses on the external environment to explain competitive advantages (Porter 1981), whereas the resource-based view focusses on the internal structure and the resources of an organization (Barney 2014). According to market-oriented theories the profitability of an organization is a function of two main factors: the attractiveness of the industry and the competitive position of an organization (Porter 1980). The attractiveness of an industry is determined by five competitive forces: "the entry of new competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers and the rivalry among the existing competitors" (Porter 1980, p. 4). The more inappropriate these 5-Forces are, the harder it is for an organization to gain a competitive advantage (Hungenberg 2014). An organization, aiming at doing so can follow one of three generic strategies, namely cost leadership, differentiation or focusing on lower costs or differentiation in a niche segment of a market (Porter 1980). In contrast representatives of the resource-based view explain the superior success of organizations by emphasizing the existence of strategically relevant resources (Doch 2009; Freiling 2001). An organization's resources are "all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness" (Barney 1991, p. 101). A resource that enables an organization to gain a sustained competitive advantage has to meet four criteria. It has to be valuable, rare and difficult to imitate (Barney 1991). Furthermore an organization needs complementary resources and capabilities to fully exploit a resource's strategic potential (Barney 1995). With regard to the strategic options the resource-based view shows similarities to Porter's generic strategies: "To create more value than its rivals, an enterprise must either produce greater benefits for the same cost or the same benefits for a lower cost" (Peteraf et al. 2003, p. 314). As a consequence, gaining or sustaining a competitive advantage requires from organizations to take environmental (market related) as well as internal (resource related) factors into consideration when developing a competitive strategy (Barney 1991; Rühl 1994; Wirtz 2016).

However, the static character and the fact that both approaches refer to a particular point in time poses the question whether these strategic approaches are suitable for the explanation of sustained competitive advantages in rapidly changing environments like the internet, where industries and business models are transformed more and more rapidly. When cycles of innovation are getting shorter, for instance it is particularly doubtful how far an analysis of the competitive forces of an industry can deliver useful findings. In this context Porter's 5-Forces aren't a suitable instrument to predict long-standing developments but rather a tool for the identification of environmental changes at an early stage (Bettis et al. 1995). For this reason the 5-Forces haven't lost their importance as an analytical framework in e-commerce (Busch 2005; Wirtz 2016). Though the strategic options within an industry stay the same, the assumption that businesses either have to focus on lower costs or differentiation to not risk being stuck in the middle can't be kept up on the internet. Because of a rising market transparency and an increasing bargaining power of the customers surfing the internet, a solely focus on lower costs has little prospect of success. In fact lower costs and competitive prices are evolving a basic requirement for businesses in e-commerce (Haertsch 2000). One can actually assume that businesses that do not meet this criterion will have a competitive disadvantage (Theuvsen 2002). This means that online-retailers could gain a competitive advantage particularly by pursuing a strategy of differentiation or hybrid strategies (Schmecken 2007; Theuvsen 2002). Against this background even Porter (2001) agrees with the idea that e-commerce possibly requires a combination of generic strategies: "The only way to do so is by achieving a sustainable competitive advantage - by operating at a lower cost, by commanding a premium price, or by doing both" (p. 70).

In the following we discuss the applicability of the resource-based theory in e-commerce. It is especially of importance here to consider if the four VRIO-criteria (short for valuable, rare, inimitable and organization) are still useful to evaluate the strategic potential of resources and competencies. In rapidly changing environments resources that are valuable, rare and difficult to imitate today, could lose these qualities tomorrow (Hunt et al. 1995). On the one hand this implies that online-retailers need to constantly evaluate resources and competencies with regard to their potential for opening up new market opportunities (Hall 1997). On the other hand meta-competencies are becoming more and more important. These so called 'dynamic capabilities' "reflect an organization's ability to achieve new and innovative forms of competitive advantage given path dependencies and market positions" (Teece et al. 1997, p. 516). Nevertheless, retailers should focus on these resources and competencies whose relevance is relatively stable even in a dynamic competitive environment. Thereby the VRIO-framework can be used as a continuous analysis tool that enables online-retailers to evaluate the strategic potential of their resources and competencies in a perseverate process (Haertsch 2000).

Gaining information about customer needs as a strategic competence

In the following paragraph we are going to discuss the question if and under which circumstances the competence of an organization to gain high quality information about customer needs could be a source of a sustained competitive advantage in the online-retail business. Here we define information as the subset of customer data that is collected, organized, stored and managed by an organization. There are many potential data-sources like web analytics software, ERP systems or data warehouses providing different kinds of data (e.g. clickstream, buying behavior, market research) that could help retailers to identify and understand customer needs (Moe 2003; Montgomery et al. 2004; Mroue et al. 2009).

As shown in the previous paragraph a competence has to fulfill the four VRIO-criteria to be a source of a sustained competitive advantage (Barney 1995). With regard to the competence examined in this context we will discuss each of those attributes in the following.

First of all, resources or competencies have to be valuable. Because of the increasing heterogeneity of customer expectations, the hybridization of consumer behavior and a rising intensity of competition as well as market transparency, it is undoubted that customer orientation is an essential competitive factor (Gregori 2006; Silberer 2009). In the online-retail business customer orientation is based on customer

data. The higher the level of competence to extract information from this data, the more an organization knows about its customers' characteristics and needs. Based on this knowledge an organization is able to address these needs more specifically, reducing information overload and thereby supporting customers in the decision-making process (Ansari et al. 2003; Tam et al. 2006). Therefore, the competence to extract information about customers from customer data is valuable because it is the basis of a customer-oriented design of all e-commerce activities, from product recommendations to informational content and even targeted advertising.

To be a source of a competitive advantage the discussed competence has to be rare as well. In the course of an e-commerce transaction every online-retailer is collecting large amounts of data about its customers (Risch et al. 2008). However, in some online-businesses collecting and storing customer data is regarded as a means to itself or an inconvenient duty that needs to be borne in order to comply with regulatory requirements. Some online-retailers may not even be aware of the fact that they possess large amounts of potentially highly valuable customer data. Others may have recognized that they might be in possession of a customer data treasure chest but aren't able to extract any meaningful information from the data. Clearly possessing large amounts of data doesn't mean that it serves as a competitive advantage (Bachem 2015; Walter 2016). Many organizations are just data rich but information poor (Falkner 1998), because they are not able to gain useful information from the collected data. This is supported by a current study on customer data management in Germany (Uniserv GmbH 2016). According to this study insufficient data quality is a major concern for 53 % of the participating companies (Uniserv GmbH 2016, p. 17). Another problem is the poor integration between IT systems that often inhibits the consolidation of data based on different data sources in different departments (Uniserv GmbH 2016, p. 18). However, nearly half (44 %) of the respondents criticize that customer data management has not gained the attention needed within their company (Uniserv GmbH 2016, p. 18). So one can assume that to date only a small part of online-retailers is able to gain detailed and high quality information about their customers' needs. For this reason the examined competence also meets the criterion of rareness.

But is the competence of gaining high quality information about customers also protected from imitation? There are different reasons why a valuable and rare resource or competence may be costly to imitate. Barney (1991) identifies three groups of reasons, namely unique historical conditions, causal ambiguity and social complexity. Due to the fact that competencies normally evolve little by little from company-specific learning processes, their tradability on open markets is precluded (Dierickx et al. 1989). An organization "which does not own a nontradeable asset which it requires for the implementation of its product market strategy is constrained to "building" this asset" (Dierickx et al. 1989, p. 1506). But competitors can't catch up an organization's advance that is evolved over many years in a significant shorter period of time (Dierickx et al. 1989). According to this, the competence of gaining information about customers probably requires similar complex mechanisms of internal development. An organization with many years of experience in aggregating, analyzing and utilizing large amounts of data based on different sources thus may have a competence that is not easy to imitate. Moreover there is evidence that the discussed competence meets the criterion of causal ambiguity. Barney (1991) speaks of causal ambiguity "when the link between the resources controlled by a firm and a firm's sustained competitive advantage is not understood or understood only very imperfectly" (p. 108 f.). Here the combination of usually complex and generally unique system landscapes (that have evolved over many years) and company-specific, inter-departmental processes to gain information from the collected data may lead to such diffuse causal connections thus making this competence imperfectly imitable. Connected closely to causal ambiguity there is the concept of social complexity. Competencies not only represent a variety of individual capabilities but also a bundle of complex social relations as well as information and communication structures that have evolved over time (Fichtner 2008). That's why competencies often are a social complex phenomenon and, in this case, imperfectly imitable. That also applies to the competence of gaining high quality information from customer data that can be characterized as a collaboration of different influencing variables like company specific structures, interpersonal relationships and individual capabilities like the handling of the collected data, for example. Due to this organizational interdependencies the discussed competence may also be hard to

imitate. In addition a strategically equivalent substitute to the competence discussed can't be recognized in this context.

Under these preconditions the discussed competence is valuable, rare and only imperfectly imitable. But the examined competence finally has to meet the last VRIO-criterion, which means that an organization needs complementary resources and capabilities to fully exploit the strategic potential of this competence (Barney 1995). Here we talk about appropriate technological systems that enable an organization to customize their communication without hampering the user experience (Kaptein et al. 2015). Furthermore, an organization needs a great variety of informational content like different texts, pictures or graphics, for example, to address the varying information needs of different customers. An organization that complies with these requirements also meets the fourth and last criterion of the VRIO-framework. From a resource-based view the competence of gaining high quality information about customer needs thus could be a source of a sustained competitive advantage in the online-retail business. But will online-retailers be able to capitalize on the information they have about their customers through the customization of the information-supply? We will discuss this question in the following paragraph.

A customized information-supply as a competitive differentiator

With the strategy of differentiation online-retailers are pursuing the objective to generate a benefit that is valuable from a customer's point of view and which is unique in an industry. But how about the potential of a customized information supply in an online-store as a strategic differentiator?

Evans and Wurster (1999) answer this question in the affirmative. They see the richness of information as well as affiliation as potential sources for a competitive advantage in the e-commerce (Evans et al. 1999). "Affiliation is about whose interests the business represents. Richness is the depth and detail of the information that the business gives the customer" (Evans et al. 1999, p. 87). Both affiliation and richness therefore can be interpreted as an implementation of a differentiation strategy (Schmeken 2007). Weiber and Kollmann argue as well that the customized communication of specific information is a great differentiator for online-retailers (2000). A customized information supply serves the purpose of lowering the customers' price sensitivity and simultaneously leading to a higher degree of customer loyalty (Kollmann 2013). Tiedtke's (2001) viewpoint is that a customized information supply that targets the individual information needs provides a superior value for each customer because of a better buying advice and lower search costs. Thus Ansari and Mela (2003) herein see a high potential for building unique customer relations and gaining a competitive advantage in the e-commerce.

These assumptions are supported by a study concerning the online attitudes and behaviours of 5710 online-shoppers from the UK, US, Australia, Germany, France and Italy (LivePerson, Inc. 2013). 83 % of the respondents "admit they need some form of support during their online journey" (LivePerson, Inc. 2013, p. 4). And for more than half of the respondents (56 %) a lack of information concerning the product, service or delivery is a reason to abandon an online purchase (LivePerson, Inc. 2013, p. 4). Against the background that the use of mobile devices is steadily increasing and therefore the available space to present information is declining, it gets more and more important to provide customers with relevant information. The Otto Group (2016), a big German retailer, for example states that actually nearly 50 % of the customers use mobile devices to access the online-shops of the group.

In contrast Theuvsen (2002) only sees little potential for gaining competitive advantages through the customization of information, because online buying is a two stage process. Initially customers try to satisfy their information needs concerning the product-quality. Thereafter they search for the lowest price. Because of a high market transparency in e-commerce it is easy for customers to combine the advisory skills of one retailer with the price advantage of another retailer (Theuvsen 2002). This would mean that it is even possible that focusing on customization possibly will have the opposite effect, because it strengthens the strategic position of competitors with a price advantage. But Riemer (2002) argues that a customized information supply increases the specificity of an online-store and thereby is capable of building psychological lock-ins. Therefore online-retailers are confronted with the task to

accustom the users to the online-store through a distinguished information supply that makes it hard for the users to switch to a competitor. Even though online-retailers won't be able to entirely prevent such a buying behavior (Riemer 2002).

A further point of criticism in this context concerns the aspect that retailers can use software, both for collecting data as well as for the customization of content, that is purchasable on the IT service market, thus making such an advantage easy to imitate (Theuvsen 2002). But as shown in the previous paragraph it is not crucial that the technology used by the retailers isn't necessarily protected against imitation. In fact it is more about the retailer's competence to aggregate, analyze and utilize large amounts of data based on different sources. And in contrast to a software, such a competence isn't as easy to imitate. By all means a customized information supply therefore can serve as a differentiator in the highly competitive online-retail business.

Conclusion

In this paper, we showed that a customized information supply, which is based on the knowledge of customer needs, can serve as a strategic differentiator. Even though it can't prevent buyer-uncertainty or information overload as a whole, it is a helpful approach to reduce these problems. Therefore a customized information supply could be a chance for online-retailers to increase sales as well as customer retention and to diminish rates of returns. According to company statements, the digital retail group Shop Direct (2015) for example provides customers of their flagship brand very.co.uk with a fully customized shopping experience that has delivered a significant uplift in conversion. Even if to date many retailers do not have the competence to utilize the collected data one can assume that the number of online-retailers following the example of Shop Direct is likely to increase in the future. With regard to a rising customer-orientation and the rapid technological progress it is moreover unclear if the customization of informational content will even be a standard in the future, similar to the widespread used recommendation engines. But even though it is not unlikely that there will probably be distinct differences regarding the performance of such activities. Retailers that succeed in building durable first-mover advantages thus may gain a lead over their competitors for some time. Nevertheless retailers should be aware of the fact that no advantage lasts forever.

Notwithstanding the above a basic requirement in this context is a reasonable cost-value ratio, which means that the benefits of this strategy should exceed the costs involved. We assume that the cost-value-ratio as well as the strategic potential differs from industry to industry. The latter may be higher in industries with products that are hallmarked by a high percentage of experience and credence attributes, often coinciding with high levels of uncertainty. In contrast the strategic potential may be low for retailers with semantically simple products like paper clips. In this paper we analyzed the strategic potential of a customized information supply in a general context. Additional research may be needed to ascertain if these assumptions are met in specific markets.

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