Enhancing customer relations using customized printing

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Abstract

This paper illustrates how information from CRM systems and other customer inputs are used in print production to enhance customer relations. The results identify three common ways user data is obtained and used focusing on more advanced customized solutions; (1) Data mining of stored customer data, illustrated by a case where transpromo based on purchase patterns are sent to customers, (2) use of pre-stored data depending of e.g. customers’ orders, exemplified by production of customized instruction manuals based on customers’ orders, and (3) user input in connection to the production, represented by a web-based service providing customers with the opportunity to customize photo books. The identified and illustrated scenarios give good examples of the importance to use these different concepts in the marketing mix to enhance marketing efforts.

Introduction and Theoretical Framework

Focusing on customers and defining the business according to customer value rather than products or services have been stressed as important for a long time. Theodore Levitt (1960, p. 56) describes this as: “The organization must learn to think of itself not as producing goods or services but as buying customers, as doing the things that will make people want to do business with it”. Buy.com is an example of how valuable a large customer base might be to a firm, since they initially sold products at or even below the actual cost price. This business model was based on the idea to build a strong base of loyal customers and profit on ads and extra services (Nee, 1999). This is also an example of a bold and short-lived business model during the dot.com era of the late 1990s. Expressions such as customer relationship management (CRM), one-to-one marketing, relationship marketing (RM) and customization got wide use during the 1990s (e.g. Buttle, 1996; Christopher et al., 1991; Pepper & Rogers, 1993; Reichheld, 1996). In 1999, there were over ten times more articles on these subjects than five years earlier (Podi, 2000) and today there are massive amounts of data collected continuously in customer databases and enterprise planning systems at firms all over the world. The importance of finding effective ways of handling all this customer data should be emphasized since “relationship marketing is not effective in all situations, although CRM systems are reducing the value threshold at which it becomes appropriate” (Kotler et al., 2005, p. 483). In 2008 firms worldwide spent US$9.2 billion on CRM software, an increase of 40% since 2006. In total, North America and Western Europe accounted for 85% of the market for CRM software systems (Gartner, 2008; 2009). To use the systems to enhance customer relations, they have to be used for segmentation, targeting and positioning (STP) of a firm’s customers. This is “the heart of modern strategic marketing” (Kotler, 1991, p. 262) and is important for “surviving and thriving in volatile business environments” (Weinstein, 1994, p. 1). STP draws upon the idea that not all customers want the same relationship with a supplier and the same treatment of different customers can deliver a value that is perceived different (Anderson & Narus, 2004). Even though the growth of loyalty schemes during the 1990s, there is research that questions their value and how they are used in RM (e.g. Byrom, 2001; Divett et al., 2003). In the end of the 1990s limitation in IT was mentioned as “barriers to the development of true dialogue” (Hart et al., 1999, p. 557) and thus “few retailers are using this potential resource in local marketing activity, for reasons of cost and the quantities of data” (Byrom, 2001, p. 340). However, during the 2000s opportunities for data mining of large data
quantities has increased and, today, data of purchase patterns are more commonly used for creating better customer relations. Criticism towards using data from loyalty programs proposes that data quality is lacking due to missing data. A study by Wright & Sparks (1999) stated that almost a fourth of the loyalty cards are not used every time a purchase is made. In the early days of marketing, printing had a dominant position in spreading messages and information when referring to non-personal communication channels (Kotler et al., 2005) and starting in the 1900s, more and more print was demanded to deliver mass communication to accompany all mass produced products (Rossell, 1959). However, during the latter half of the 20th century many new channels for reaching larger audiences have been introduced. These channels have changed the interaction with customers and many of them, e.g. the Internet, are very good for personalized marketing messages and hence an enabler of RM. However, introduction of digital printing in the mid-1990s has developed printing to become a useful tool in customization for RM, since digital printing makes it possible to customize different copies in a print run to specific individuals based on different input variables, so-called variable data printing (VDP) (e.g. Kipphan, 2001; Romano et al., 1999). Broudy & Romano (1999) have shown the significance of VDP in terms of increased response rates when a firm is conducting a personalized campaign to a certain customer segment. There is a substantial difference between direct mail that has been customized for the recipient and static mail that has not been customized. The latter is often regarded as unsolicited and can, in some cases, even damage the customer relation (e.g. Broudy & Romano, 1999; Gidlund et al., 2008; Payne, 2006). Even though there are many advantages of printing customized pieces, the use of VDP is still very low in the printing industry. According to previous research (e.g. Mejtoft, 2008) digital printing is mainly used for short production runs and on-demand printing even though a majority of Swedish commercial printers offer different levels of VDP to their customers. The objective of this brief introductory study is to illustrate how customized printing and information from CRM systems and other customer inputs are used in print production to strengthen customer relationships and improve a firm’s marketing efforts.

Methodology

Firstly, cases in Podi’s (2010) database was analysed to get insight into how printing firms use information when providing customers with customized prints. It should be noted that the database does not represent a random selection of all available cases. Although, the database indicates how the industry regards successful use of customized printing today. These results formed the basis for identifying illustrative cases to the phenomenon. Secondly, to gain in-depth knowledge of how customers provided information and database systems are utilized and affect RM efforts, a qualitative case study approach was selected (e.g. Yin, 1994). During 2010, interviews, based on open-ended questions (e.g. Fontana & Frey, 2005; Robson, 2002), were conducted, with respondents from firms representing both the illustrated products and their suppliers. Since case studies are usually not intended to be representative to the world (Stake, 2005; Yin, 1994), the results from this study should not be considered general. Although, it is the author’s opinion that it gives a good illustration of the phenomenon.

Results and Discussion

Analysing reports on successful digital printing cases (Podi, 2000; 2001; 2003; 2004; 2005; 2006), show a trend towards advocating printing firms to market themselves as service providers, using the Internet as a resource and cooperating with other firms to offer full services to customers. In the early reports, the lack of using the de-facto standards for variable data printing (VDP), PPML, was an issue, which is not prominent in the following reports.
Nevertheless, in a discussion by Frank Romano (2007) the lack of standard was mentioned as a problem and only about 10% of all digital printing is VDP. One of the most contributory causes is the lack of standard, or rather lack of using standard, in the variable printing business. Most manufacturers of printing presses want to control the entire workflow and, consequently, have their own workflow languages and systems for VDP. Consequently, “if it’s hard to do [VDP], most people aren’t going to do it” (Romano, 2007). In Podi’s Case Study Database (2010) of successful digital print projects, Podi has categorized the cases in six different categories depending on application (Table 1).

| Table 1. Applications in Podi’s case study database (Based on Podi, 2010). |
|---------------------------------|-----------------|---------------------------------------------------------------|
| Business communications         | 7               | Postcards with personalized URLs, web-to-print system for business cards |
| Collateral management           | 88              | Personalized sales and information kits                        |
| Direct marketing                | 334             | Campaigns using loyalty program data, personalized/versioned direct mail |
| Publishing                      | 17              | Personalized illustrated children’s books, Customized instruction manuals |
| Specialty printing              | 16              | Customized ceramic tiles, personalized tickets to avoid counterfeit. |
| Transactional                   | 37              | Personalized invoices and statements to build customer loyalty      |

* A single case may appear in more than one category. In total there were 433 cases in the database.

These categories do, however, not illustrate how user data is used in the production. When performing a deeper analyse the different cases that are described in the Podi Case Study Database (2010) can be divided in different scenarios depending on how the data for printed products is derived. In general there are three conceptual ways the data is obtained and used when discussing more advanced customized solutions (Figure 1): (1) Data mining of stored customer data. Cases in this category are fully personalized offers based on previous purchase pattern, but also small personalization such as including name in ads and transactional printing. (2) Use of pre-stored data depending of e.g. a customer’s order. This can be manuals that are customized to a customized product, such as computers or cars, and customization of enrolment kits or tickets. (3) User input in connection to the production, most often done by web application, e.g. photo books and other self-customized printed material.

The first scenario is based on passive user input combined with data mining and analysis or direct use of the data. The last two identified scenarios are based on an active user input that either triggers the use of pre-stored data or use new data from the customer. In many cases more than one of these ways are combined when producing a digitally printed matter e.g. when a customer is ordering a customized calendar on the internet. In this scenario user input, such as photos, texts and year, are combined with pre-stored data of the days and dates on the calendar sheets that are triggered by the user’s input to form a customized calendar. These three different scenarios will be exemplified below with different cases.
Loyalty Cards and Customized Coupons

To strengthen the relationship with their customers, ICA, a leading retail group in the Nordic countries with around 2200 grocery stores, started to send customized transpromo (i.e. promotions on transactional statements) to their frequent loyalty card users in the fall of 2008. As of 2010, ICA had over 2 million frequent loyalty card holders, i.e. a monthly purchase of over €110. The project was initiated in May 2007, but data of purchase behaviour had been gathered for over 10 years, which was a prerequisite for the system to work. ICA launched a test phase during the summer of 2008, during which 75'000 loyal customers received discounts on 10 different products shown in a picture and discount presented in writing. To avoid the use of costly coupons in the store, the discounts were stored on the customers’ loyalty cards and the discounts were deducted when swiping the card in the store. The objective of the project was, according to the respondent, to “keep loyal and profitable customers by giving them relevant offers”. Moreover, the basic conditions were, except for data regarding purchasing habits, to have a suitable CRM system and the possibility to perform fast and accurate analysis of the collected data. Today they have an agreement with a printing firm, which, each month, prints around seven million sheets during a period of 6 to 7 days. The large volume has made the actual printing speed of the digital printing presses important. The respondent believes that an important success factor for the project has been the improvements in print quality and speed of digital colour printing during the last couple of years. However, the cost when changing from ordinary statements to transpromo has increased, this since colour is more expensive than monochrome printing. Yet, the main objective of this project was to increase the total revenues and, thus, compensating a higher cost. To have the opportunity to choose supplier for print and other services ICA developed their own systems, customized to their needs. Since, it has become more common with retail software, similar to the one developed by ICA, it is the respondent’s belief that it might be possible for a smaller actor to do similar customization today without the need for heavy investments in development. Regarding the production, ICA has partnered up with firms that can provide printing, finishing and distribution to decrease lead times. However, when offering discounts it is important to work close to suppliers that want to reach a targeted customer segment, since these firms are the ones that grant the discount. Furthermore, ICA experiences a great increase in the usage of the customized discount coupons. General discount coupons have a usage of no more than 1-3%, while customized coupons have a usage of approximately 25%.

Customized Instruction Manuals

Scania, a manufacturer of heavy trucks, has developed a system for producing customized printed instruction manuals to accompany their trucks. The need for customizing their instruction manuals is a result of customization made to the trucks depending on customers’ preferences and is also a way to increase relations with their customers. Before commencing the project some initial studies were conducted to find out how end users perceive the value of the instruction manual. When the project was initiated a long-term relationship with a Swedish print and media firm was established regarding the production of the instruction manuals. It was important to find a supplier that could provide the complete value chain and handle the database, matching the specification to the database, preform printing and do all necessary packaging. The system is based on a database in which all text and images are tagged and separated from the layout. Each night product specifications of trucks in production are delivered to the printing firm that complete the instruction manuals based on information from the database. The instruction manuals are electronically compiled at the printing firm depending on a number of variables set during production. In total the printing firm has six workdays to complete an instruction manual. According to the respondent, the
primary objectives, when switching to customized instruction manuals, were to increase customer value and decrease the cost of the instruction manual. Furthermore, having an exclusive and user friendly instruction manual is important for the image of the firm and an important marketing tool. The primary cost reduction, according to the respondent, comes from avoiding stock-keeping of finished manuals since they are printed on-demand. Thus, they can avoid that undelivered and out-dated instruction manuals have to be discarded. The total weight of paper products delivered with the trucks has been decreased with roughly 40%. The introduction of this new production method of the manuals was introduced with a new model of trucks to avoid any production problems when changing system.

**Customized Photo Albums**

Fotobok.com provides the opportunities for customers to create their own photo books online and have them printed and delivered to the customer’s home address. The system is based on an offline software (and plug-ins for the common graphic software) that can be downloaded and installed on the customers’ computer. The photo books can be created either by using templates or by the customer creating the complete layout themselves. This makes the system suitable for both amateurs and professional photographers. The idea behind the project was to develop a user friendly service with both high quality and a reasonable price. Furthermore, to enable professionals to brand and sell photo books of e.g. weddings, Fotobok.com do not print their logotype or other information in the books. This makes it possible to use them as a supplier for those who wants to market themselves. This has, according to the respondent, been successful. To develop the infrastructure needed for the project, the firm initiated a cooperation with a small software firm that created the website and customized the software for creating the photo books. Today they are also cooperating with four printing firms that provide all printing, finishing and delivery. They have focused their marketing on people interested in photography through e.g. sponsoring free photo books to photo associations.

**Concluding Remarks and Further Research**

This paper identifies and illustrates three common ways to use, collect and retrieve information in customized printing: (1) data mining of customer data, (2) use of pre-stored data in customization depending of a customer’s order, and (3) user input of data in the production. As of use in marketing efforts, all of these may be of interest and practitioners should know the opportunity to use these different concepts in the marketing mix to enhance marketing efforts. Nevertheless, data mining and customizing messages to customers in print and other channels is indeed the most important of these three examples in working with customer loyalty and relationship marketing. Transpromo is becoming increasingly important to reach out to customers and get their attention though targeted customized offers. Moreover, customizing and reducing the amount of unnecessary information provided to the customer is also an important piece in marketing products, in which a high quality brand image can be displayed to customers. The proposed scenarios can work as a starting point for communication firms developing innovative ideas for printed relationship marketing. Even though focus is on printed products, the illustrated concepts most certainly are valid for any channels.

From a managerial point of view, further research should focus on how printing firms organize their business to, strategically, meet new demands to provide more customized marketing in contrast to static mass marketing messages. Furthermore, even though this paper has illustrated scenarios for how data is used in print production, further research should focus on possible scenarios for how print can be differentiated from other channels (except from obvious tactile differences) and, hence, provide a useful future channel in the marketing mix.
Literature Cited


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