Exploring the Use of E-CRM Elements and Effective Website Design as Tools for Reducing Consumer Post-Purchase Cognitive Dissonance

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Abstract

The focus of this paper is to discuss potential ways for businesses to help reduce consumers levels of post-purchase cognitive dissonance through implementation of e-CRM elements and effective website design. Using an experimental design it was shown that cognitive dissonance levels can in-fact be reduced through the use of websites that utilize 7 C elements in their creation. Those in the high dissonance experimental condition, after seeing the website, ended up with dissonance levels equally low to those in the low dissonance experimental condition. This speaks to the great importance e-CRM elements can have in the reduction of dissonance and thus the positive impact it can have on customer satisfaction. The conclusion and implications focus on how businesses can strategically implement these e-CRM elements into their website designs, thus potentially decreasing/alleviating post-purchase dissonance and its negative effect on CLV. The authors caution that this website design strategy should not be used alone, but in tandem with other more commonly used dissonance redressal systems.

Keywords: Cognitive Dissonance, e-CRM, Website Design, Customer Lifetime Value

Introduction

Consumer satisfaction is the key to building up long-term relationships between the customers and the firm. With the change in times, business practices have undergone a significant change in terms of the bond businesses try to establish with the customers. There has been a paradigm shift from the transactional model to the relationship model where the focus is more on long-term customer satisfaction and less on the short-term profits acquired by the business.

One approach to building and maintaining satisfaction (thereby leading to a long-term relationship with the customer) is to make sure that the businesses are able to reduce the post-purchase dissonance frequently experienced by consumers. Businesses have established various mechanisms to combat the feelings of such dissonance including, *inter alia,* offering promotional offers such as low price guarantees, access to redressal systems, making sure that the consumer believes in the fact that he/she has made the right choice (sometimes by sending letters in the mail stating that one has made the best decision by purchasing the particular product), and constantly reinforcing the veracity of the decision by promoting the product in a certain manner.

It is our contention that businesses making the effective use of the Internet may be more successful in their ability to reduce dissonance (hence, increase satisfaction) compared to those that do not make the use of the Internet. Specifically, we posit that the implementation of e-CRM elements through effective website design is likely to lead to lower dissonance levels compared to businesses that do not use such strategies. The concept of e-CRM is the application of Customer Relationship Management ideas in the electronic environment.

The manuscript is organized in the following manner: The first section discusses the theory of cognitive dissonance and reiterates its importance in the domain of marketing. The second section discusses how the Internet has evolved to present market-based information to the customer in a unique way. The third section deals with the concepts of electronic customer relationship management. Section four introduces the research hypotheses followed by sections five and six where we discuss the methods and results respectively. Section seven states the discussion and implications of the research along with some potential future research directions.

Cognitive Dissonance

The theory of cognitive dissonance is considered as one of the most influential theories in psychology (Jones 1985). In the domain of marketing too, the particular construct has been researched extensively and managerial implications have been formulated to help the businesses and the consumers. A recent study by Sweeney et al. (2000) has shed new light on how to conceptualize the construct. According to their perception, cognitive dissonance has three distinct dimensions. There is one emotional dimension capturing the discomfort experienced by individuals after they have made a decision and two cognitive dimensions, termed "wisdom of purchase" and "concern over the deal".

The first dimension refers to the emotional feeling of inner tension and anxiety experienced by individuals after they have purchased a product. In other words, there is a presence of an internal inconsistency making an individual uncomfortable and leading to a state of tension or dissonance (Landman, 1993). Individuals then try to put these cognitive tensions to rest.

The cognitive component of "wisdom of purchase" refers to the realization on the part of the consumer, post hoc, that one might not need the product or that one might have made a wrong choice. This refers to the difficulty of making a choice while purchasing a product. "Concern over the deal" dimension refers to the situation when the individual, after the purchase, may contemplate that one has purchased a particular product due to the insistence of a 'pushy' salesperson. It is a common notion that consumers sometimes feel obligated to buy a certain product because they have heard the salesperson talk about the product for an extended period.

Given the above discussion regarding the multi-dimensional nature of cognitive dissonance it is reasonable to offer the explanation that any statements and reports offered by the business contradicting the emotional and cognitive tensions experienced by consumers are likely to decrease the level of cognitive dissonance. Although businesses do perform certain activities that try to reduce the levels of dissonance, it is our contention that having certain specific elements presented electronically (such as via websites) to consumers will be more effective in reducing the levels of dissonance experienced compared to those businesses that do not have such mechanisms.

Electronic Commerce

The Internet can be defined as a "worldwide network of networks enabling millions of smaller computers to share information with each other and to share various database, communications and transaction resources" (Clemente, 1998). Interconnectivity signifies that people connected to the Internet can interact and communicate with each other. As a result, there is trade and exchange of new products and ideas at a very low cost.

The World Wide Web, introduced in the year 1991, made it possible to search for information effectively over the Net. This created a paradigm shift in the manner information was presented. Gradually consumers began to go online to get information on products and services. Businesses began to take advantage of this new technology and the concept of electronic commerce was born.

E-CRM

Since new customers may be hard to come by, keeping your existing customers satisfied and maximizing Customer Lifetime Value (CLV) becomes increasingly important. CLV is the process of looking at a customer's potential lifetime contribution to your businesses revenue stream rather than looking at the individual contribution to income from each transaction (Kotler, 2003). A key factor in making a customer a lifetime customer is the relationship that the person has with the organization. The profit potential and marketing efficiencies that focusing on customer retention rather than customer acquisition have been demonstrated in the marketing literature (e.g. Reichheld, 1993). Since we have been examining how high levels of cognitive dissonance can reduce customer satisfaction and therefore repeat purchasing, even more attention to satisfying existing customers and fostering an even greater amount loyalty is paramount.

Having and managing a relationship with your customers is one way to increase brand loyalty. The goal of Customer Relationship Management (CRM) is to help create and increase customer equity. Numerous studies have found that a CRM emphasis can give mutual benefit to both the company and customer (Gronroos, 1996). Customer retention studies have also shown

that by increasing customer retention levels, profitability can be increased (e.g. Buchanan and Gillies, 1990; Reicheld and Kenny, 1990).

Since this paper is focusing on how companies can utilize web sites to maximize CLV through reducing post-purchase cognitive dissonance, we will use e-CRM, which is a platform that delivers CRM functions via the World Wide Web (Feinberg and Kadam, 2002), as a framework in which to evaluate what types of web content sports teams are using to help foster relationships with their customers.

E-CRM features that many online retailers utilize include the ability to complain, E-mail capability, information for first time users, mailing lists, frequently asked questions (FAQ) section, member benefits, site customization, chat rooms, bulletin boards and site tours just to name a few (Feinberg and Kadam, 2002). Feinberg and Kadam demonstrated that the amount of e-CRM factors present on a company web page was related to customer satisfaction levels. They then were able to demonstrate that as e-CRM increases on a site, the higher the level of customer satisfaction will be.

The environment we will be examining is the online environment, therefore it is important to look at what common elements effective web pages contain. Rayport and Jaworski (2001) identified what they classify as the 7 C's of effective website design. These C's include: Context, Content, Community, Customization, Communication, Connection, and Commerce. The context is the actual layout and design of the web page. The context refers to the text, video, sound, and picture elements contained on the site. The Community aspect of effective design pertains to the ability of user-to-user communication and interaction. Customization is the web sites ability to allow the user to customize or personalize the site to their liking, giving the content and features that they want. Communication refers to the availability of user-to-site, site-to-user, or two-way communication. Connection relates to the amount of links to other sites that are included in the design of the sponsoring web site. Commerce refers to the ability of the website to allow for commercial transactions between the company and the visitor/customer. Many of these "C's" translate very well to e-CRM and relationship building theories. Therefore this study focused on creating scenario's in which websites were created utilizing the 7 C's, within the context of e-CRM, in the hopes of reducing dissonance levels of consumers.

Since the cognitive dissonance literature suggests that high levels of dissonance can reduce customer satisfaction, and the e-CRM literature suggests that use of e-CRM elements on a website can increase satisfaction, this study offers hypotheses that the use of e-CRM should decrease the post-purchase levels of cognitive dissonance experienced by a consumer.

Hypotheses

H1:   Subjects seeing a high dissonance scenario will experience a significantly higher cognitive dissonance level than subjects seeing a low dissonance scenario.
H2:   Subjects viewing information about a website created to be high in e-CRM elements will experience a significant reduction in dissonance levels.

Method

Sample: 90 participants were chosen to participate in this study. No compensation or course credit was given for their participation.

Procedure: Two product/service categories were chosen as the backdrop of the experiment.
These were the purchase of a new digital camera and the purchase of a vacation. The researchers
then asked the participants to read a scenario, picture themselves in that situation, and then
record their responses to the cognitive dissonance measurement scale provided. For each
category, camera and vacation, both a high and low dissonance-producing scenario was created.
Once this was done, descriptions of fictitious company websites were created that incorporated
many of the e-CRM elements and many of the 7 C's of effective website design mentioned
earlier. This was intended to reduce the customers' level of dissonance. Two product categories
were chosen, rather than just one, to help lend validity to the results by showing the phenomenon
occurring over multiple product types.
        Examples of information that was provided in the dissonance inducing scenarios
includes:
- "Your friends have put you in charge of choosing a spring break location."
- "You have never planned a trip before."
- "You are under a time constraint and places are booking quickly."
- "Your friends are very picky and have been known to complain even under the best of
circumstances." Etc.

These kind of statements were designed to induce a higher level of dissonance in the
respondents.
        The website descriptions were intentionally developed so as to incorporate as many of the
7 C's as possible. For example the vacation website scenario included statements such as "you
have access to a "members only website", "there is a chatroom where you can talk with other
Spring Break Guests", "there are message boards for posting and answering guest questions",
and a "FAQ" section. Each of these items relates directly back to one of the aforementioned 7
C's and is predicted, by including this information on the website and making it available post-
purchase, to reduce consumer dissonance levels.
        A copy of the cognitive dissonance scale used in this study is included as appendix I.

Results

        Of the 100 surveys handed out 90 valid surveys were returned. Cronbach's alpha's were
conducted to test for the reliability of the 7-item cognitive dissonance scale used for each
scenario. The alpha's ranged from .795 to .947 and are above the generally accepted .70 level.
        As a manipulation check, a test of the mean dissonance scores between the high and low
dissonance scenarios was conducted to determine if the researchers had created scenarios that
produced significantly different levels of dissonance in the predicted direction. A paired sample
t-test was conducted resulting in a mean score for the high dissonance scenarios of 3.94 and a
mean for the low dissonance scenarios of 2.78. The result was a t-value of 6.277, with a
significance = 0.000. This indicates support for the researchers creation of significantly different
dissonance producing scenarios in the predicted direction as stated in hypothesis 1.
        In order to test for a significant reduction in cognitive dissonance after viewing the
website material, a paired sample t-test was conducted between the high dissonance scenario
mean dissonance scores and the high dissonance scenario after viewing the website scores. The
high dissonance scores had a mean of 3.96, while the dissonance scores after seeing the website
information was 3.06. The result was a t-value of 6.896, with a significance = 0.000. This

indicates that the people having viewed the website had significantly lower levels of cognitive dissonance than they had before viewing the websites. This shows support for hypothesis 2.

Of further interest to the researchers was how low the dissonance levels could get with the addition of the e-CRM 7 C laden websites. A paired sample t-test was conducted between the post-website viewing cognitive dissonance scores and the low cognitive dissonance scenario mean scores. The result was a t-value of 1.516, with a significance = 0.133. This indicates that there was no significant difference between the high dissonance post-website scores and the low dissonance condition.

Discussion and Implications

Given that the study has found some interesting results for the hypotheses, observations of managerial relevance can be made regarding the usage of the electronic medium to present information to the consumers in order to reduce dissonance and to increase the chances of building a long-term relationship with the firms. It is evident from the results that compared to the businesses that do not use e-CRM elements, businesses that do so benefit by lowering the levels of dissonance experienced by consumers. Corporate websites may also need to be updated to create sections specifically for people that have purchased products. This section most certainly needs to have the effective website design and e-CRM elements described in this paper.

The results of our study provide evidence that the post-purchase viewing of a website instilling the 7 C's within the context of e-CRM does indeed reduce the dissonance levels of individuals initially experiencing high cognitive dissonance from the product purchase. In other words, subsequent to the experience of high levels of cognitive dissonance, when individuals are exposed to a website inculcating the proposed elements of the 7 C's, the levels of cognitive dissonance are reduced. This reduction is further validated when the results of our first hypothesis show that the scenario created with objective of inducing high dissonance did indeed result in such an experience, and significantly more so than the scenario created with the objective of inducing low dissonance.

Perhaps what is more interesting is the fact that the subsequent reduction in high dissonance scores for individuals who saw the website is comparable to the initial scores of dissonance obtained for those exposed to the low dissonance scenario. What this means is that the website significantly ameliorates the high dissonance scores to levels that are equivalent to those experienced by individuals initially having low dissonance.

In terms of the theoretical implications, our research opens the door for conversation regarding the electronic mechanisms available for reducing post-purchase dissonance. Extant research in terms of the effects of Internet and the World Wide Web has looked extensively at pre-decision/purchase variables such as, *inter alia*, search intentions and promotions offline vis-à-vis the online environment. We hereby demonstrate the need to further investigate the offline versus online environment in a post-purchase context.

With regard to the practical implications, the important point to note is that creating and maintaining a website (bearing the elements of the 7 C's) is likely to be more cost-effective than other redressal mechanisms available to the marketer. For instance, operating and maintaining a 1-800 phone line is likely to be expensive and labor intensive for the company. It can be guessed that irate customers are less likely to wait on the phone line in order to list their grievances. We are, however, not suggesting that companies use their website as the only tool to deal with consumer complaints/dissonance. We recommend that it be used as an additional tool to make

other redressal mechanisms more efficient and effective. Several companies direct and instruct their customers (either when communicating over the phone or by way of a TV ad) to company websites, however if these websites are not created with dissonance reduction in mind they may be missing out on a very important opportunity.

In terms of future research directions, extrapolations along the same lines of this research could be made in terms of investigating whether other negative post-purchase emotions, like regret and disappointment, can be dealt with using the proposed website e-CRM elements. Another thing that marketers and web designers need to understand is that not all customers would be motivated to search for and visit the website and hence, it is important to understand some of the personality variables that might support such a behavior. Furthermore, websites might not always be suitable for a company selling to certain target markets where the exposure to Internet and the notion of ready availability of the same is not quite as prevalent compared to that in the United States. Hence, the company also needs to understand and strategize accordingly.

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Appendix I.

| | Strongly _____ Strongly |
| | Disagree   Agree |

	Strongly Disagree						Strongly Agree
I would wonder if I really needed this product.	1	2	3	4	5	6	7
I would wonder whether I should have bought anything at all.	1	2	3	4	5	6	7
I would wonder if I had made the right choice.	1	2	3	4	5	6	7
I would have wondered if I had done the right thing in buying this product.	1	2	3	4	5	6	7
After I had bought this product I would wonder if I'd been fooled.	1	2	3	4	5	6	7
After I had bought this product I would wonder if they had spun me a line.	1	2	3	4	5	6	7
After I had bought this product I would wonder whether there was something wrong with the deal I got.	1	2	3	4	5	6	7