IE 597B DESIGNING PRODUCT FAMILIES ME597B
SPRING 2001

WEB DESIGN ELEMENTS
AND
THEIR IMPACT ON CONSUMER BRAND EXPERIENCE

A STUDY OF THE COMPUTER INDUSTRY

Submitted by:

Ramakrishnan Jayaraman
Girish Srinivasan
Arvind Rao
Smita Bharti
Jayesh Tekchandaney
Kiran Thimmegowda
TABLE OF CONTENTS

EXECUTIVE SUMMARY ........................................................................................................ 4

INTRODUCTION .................................................................................................................. 5
  INTERNET IN ENGINEERING .......................................................................................... 5
  INTERNET IN MARKETING ............................................................................................... 5

BACKGROUND ................................................................................................................... 7
  TECHNOLOGY BARRIER ................................................................................................. 7
  LOWERED SWITCHING COSTS ....................................................................................... 7
  LIMITATIONS ................................................................................................................. 7

MOTIVATION ....................................................................................................................... 8

OBJECTIVES ........................................................................................................................ 9

METHODOLOGY .................................................................................................................. 10
  1. LITERATURE REVIEW ............................................................................................... 10
  2. IDENTIFYING THE NON-QUANTIFIABLE AND QUANTIFIABLE WEB ELEMENTS .... 10
  3. QUESTIONNAIRE PREPARATION ........................................................................... 10
  4. SAMPLE SELECTION ............................................................................................... 11
  5. INTERVIEW PROCESS ............................................................................................. 12
  6. ANALYSIS AND CONCLUSIONS ............................................................................ 12

SUMMARY OF INTERVIEWEE RESPONSES BY WEBSITE ............................................. 13
  IBM ............................................................................................................................... 13
  DELL ............................................................................................................................. 15
  GATEWAY ..................................................................................................................... 17
  APPLE .......................................................................................................................... 19

RESULTS AND ANALYSIS .............................................................................................. 21
  QUANTIFIABLE ELEMENTS OF THE WEBSITE .......................................................... 21
  NON-QUANTIFIABLE ELEMENTS OF THE WEBSITE .................................................... 24

GUIDELINES FOR GOOD WEB DESIGN ......................................................................... 33
  GUIDELINES TO ENHANCE ONLINE EXPERIENCE ................................................... 33

CONCLUSIONS ................................................................................................................... 34

FUTURE WORK ................................................................................................................... 35

TIES TO THE COURSE QUESTION .................................................................................. 36
Executive Summary

This pilot study was undertaken with the intention to identify factors, both quantifiable and non-quantifiable, that influence consumer online experience.

The study comprised the following:

- Reviewing relevant literature.
- Identification of factors that affect customer behavior.
- Categorization of these factors as quantifiable and non-quantifiable.
- Drafting a questionnaire to facilitate the interview process.
- Conducting and recording interviews.
- Data analysis

The order in which websites were selected for the customization process was randomized to minimize bias. Results of the analysis were used to conclude the following.

- Web Design elements play a definite role in influencing online customer experience.
- Dell and Gateway are clear in their objective to sell online, while IBM and Apple are quite content with merely advertising their products and new technologies.
- Even experiments conducted with a small sample size, as in this pilot study; show a reversal in consumer brand perception after a brief online customization process.
- A larger and more diverse sample size must be experimentated with in order to arrive at any definite conclusion.
- A detailed analysis of web page content and its effects on online consumer brand experience must be carried out to be able to make any further recommendations.
- Web-layout / site organization, customer feedback tools and judicious use of graphics can be instrumental to the success of a web.
• Effective design and display of the company logo can influence customer brand perception.
• An effective way to increase online sales is to enhance one’s web presence.

**Introduction**

The Internet is proving to be one of the most challenging environments for product development in recent history. The Internet enables economic activities that are characterized by instant information flows, delayering of value chains, the emergence of new intermediaries, and shifting of economic rules and market dynamics. The exponential growth of the internet as an enabler of mass customization has led to the importance of web design issues, particularly as they relate to how consumers understand and interpret specific web sites while attaining information, browsing and purchasing goods. One of the critical aspects influencing the success of electronic commerce is the effectiveness of the interface interacting with the customers. The fact that consumers can customize products and services online has a host of implications for how web design and customization characteristics affect perceptions of the brand or company represented in a web site.

**Internet in Engineering**

Considerable research has been carried out in utilizing the Internet for distributed design and manufacturing, though not much has yet been related to the consumer brand experience. Work needs to be done to establish guidelines for effective website design, with implications for understanding how consumers utilize and interact with web sites, within the context of product customization.

**Internet in Marketing**

While the question of how web design relates directly to the customer brand experience has not specifically been addressed, studies have been carried out to question the effectiveness of pictures and colors, visuals of product design, richness and detail in websites, interactive decision aids in the customization process and banner advertising.
Peripheral cues such as background pictures or colors, are likely to affect product attribute weighting and subsequently, choice. Firms can increase their market power by strategically using information on multiple channels to achieve finer consumer segmentation.

Linking the web to a consumer’s brand experience within the context of product customization has led to a plethora of topics for research. In the present study, the effects of web design elements on the overall brand experience has been investigated by carrying out a quantitative and qualitative study of the websites of four leaders of the computer industry, namely Dell, IBM, Apple and Gateway. The study has been carried out on a number of people from engineering and marketing backgrounds. Through this effort, conclusions have been drawn on what web design elements affect the brand perceptions and the nature of impact, depending on the type of consumer. The present research is a pilot study, and a precursor to a more comprehensive and elaborate study in this important research area.
Background

The web has made customer experience more important than ever before. The following are the three qualities that make the web different.

Technology Barrier

Every major consumer technology has a basic level of ease of use, allowing customers easily to gain value from the product. The television requires the use of only three pairs of buttons, on / off, channel up / down, volume up / down. Likewise other technologies like VCR and refrigerators offer a basic set of features that are fast and easy to access.

The Web, on the other hand, makes it difficult and time consuming to gain any such value at all. The potential customer has to turn on the computer, start up Windows, dial out on the modem, run the Brower, click on the links, acknowledge a DNS error or two and then arrive at the website. The user at this stage expects to shop and buy. Instead, a busy web site or a maze of links and cluttered information can alienate the consumer, especially at the end of a long day. To succeed, websites must remove any complexity that might add to the frustrations customers experience when they are at the web site.

Lowered Switching Costs

Almost nothing separates one website from another. Unless the experience is good, unless customers can accomplish their goals quickly and easily, customers can and will immediately switch to a competitor. There are no switching costs. Customers are loyal only to those sites that they like and trust – i.e. customers are loyal to good brands.

Limitations

The web is a uniquely constrained medium wherein the most advanced technology does not necessarily win. Instead, the sites that build a better customer experience within constraints will succeed.
From the above analysis it is evident that a serious effort is needed to address the issue of the impact of web and web design elements on the customer’s brand perception.

**Motivation**

The Internet has a current user base of about 440 million, and is growing at a rapid pace of about 320 users per minute.

![Market Share by Company](image)

**Figure 1**

Figure 1 indicates that less than 50% of the total market for PCs is currently in the stronghold of the 5 leading brands leaving a whopping amount that can be tapped. Online customization strategies and the web sites used to accomplish it assume all the more importance in this light. Any potential influence that web site design may have on the consumer’s decision becomes a worthwhile proposition that can be examined. In today’s world of cutthroat competition, the fact that the Internet has become a prominent medium for advertising has meant that the website may be the key element that decides the sale.
Objectives

The objective is to study the impact websites have on the customer perception of brand value and image. On the web the brand is the customer experience. The design, layout, presentation and navigation of the website therefore become important factors that contribute to the customer’s experience and hence the brand.

It is planned to examine the web design elements that are functional (e.g., number of drop down boxes, check boxes, radio buttons) and symbolic (e.g. background colors, logos, product pictures). The quantitative and qualitative factors that contribute to the customer’s perception of a company are to be identified. The study aims to capture the reactions and emotions of the user while browsing the web, so as to examine the user responses to non-quantifiable (symbolic) elements. The objectives were classified into the following categories:

- *Clarity of website objective*
- *Ease of finding information*
- *Amount of information per screen*
- *Ease of navigation*
Methodology

To be able to actually compare the various companies involved in the study, the following methodology was adopted -

1. Literature Review
The first task was to build the questionnaire so that various elements of the selected web sites could be compared. The necessary factors for a successful comparison had to be identified. Numerous online and offline surveys comparing web site elements were analyzed. A number of articles addressing online customization and marketing strategies, business models and sales reports were studied. The information gathered was used to build a questionnaire.

2. Identifying the Non-Quantifiable and Quantifiable Web Elements
The following are some of the qualitative web elements:

- Background colors
- Font size, style
- Web page layout
- Visual Aids
- Ease of Navigation

The quantifiable web elements that we identified are:

- Number of clicks to get to the customizations page
- Number of check boxes, radio buttons
- Number of pull down menus

3. Questionnaire Preparation
Based on the above identified quantifiable and non-quantifiable web elements a comprehensive questionnaire was prepared to compare each website.
The following were the questionnaires prepared for the study:

1. Pre-Questionnaire- Used to evaluate the interviewee’s familiarity and experience with the Internet and the selected web sites. (Refer APPENDIX 1)
2. Questionnaire for the interview process- Used to record user responses while going through the customization process on the web sites. (Refer APPENDIX 2.1, 2.2)
3. Post Questionnaire- Used to gather data on the non-quantifiable aspects. This questionnaire was designed such that it would provide a summary of the quality of the online customization process of the websites.

The identified non-quantifiable elements were assigned a range of values between 1-5, where each number represented the following:

1- Strongly Disagree
2- Disagree
3- Satisfactory
4- Agree
5- Strongly agree

4. Sample Selection
A group of four students from both engineering and marketing were selected. This served the purpose of getting a broader perspective for the study. Both groups of people use computers for varying applications and hence have different requirements. These students were of two different academic standings (the marketing students all being undergraduate and the engineering students being graduate). This disparity had an impact on the customization process. For example, an engineering student may want a faster processor speed to run complex code while a management student may not require this. Hence, the responses to particular questions are likely to be different.
5. Interview Process

The interview procedure consisted of the following steps:

1. Each interviewee was asked to sign a consent form.
2. The pre-questionnaire was used to understand the interviewee’s experience in areas such as online shopping, familiarity with computer brand names, internet browsing and related topics.
3. During the interview, the interviewees were asked to customize a desktop from one of the four selected websites. The prepared questionnaire was used to document their opinions on the customization process and their online experience. The entire interview was videotaped to capture their emotions and reactions.
4. This was followed by a post-questionnaire, which consisted of the qualitative analysis.

For the interview process the companies were paired so that each four sets of data could be gathered for each pair. In order to ensure that the users were not influenced by the sequence in which they viewed the web sites, the sequence was altered for the subjects.

6. Analysis and Conclusions

All the data collected from the interviews and the questionnaires were put together and a comparison between the company websites was made. The data analysis included the following:

1. Analysis of the responses obtained from interviews
2. Analysis of the results obtained from post-questionnaire (Refer APPENDIX 3.1, 3.2, 3.3, 3.4)

Conclusions made based on the analysis cannot be deemed entirely reliable due to the small sample size.
Summary of Interviewee responses by website

IBM

Page 1: http://www.ibm.com
1. The website has an uncomplicated look.
2. There are two images that keep alternating each time the page is refreshed does not give the user a familiarity with the web site.
3. Some users were able to relate to a human image on the first page. The other image simply had a notebook on the page that didn’t really make an impression.
4. Classification based on the market segment and the product directed the user to the right page.
5. Page is cluttered in the top half while the bottom half is blank. The information could have been displayed better.

Page 2: Home/Home Office
1. The page was quite cluttered. The user had to spend quite some time locating the link to move on to the next page.
2. Special offers and incentives were displayed on the same page. Most users felt that this space could have been utilized better. For example, the camera that was displayed (much bigger than the laptops) made the users wonder whether they were trying to sell a camera or a laptop.
3. Most users disliked excessive scrolling.
4. Conditions and policies could be viewed using links at the bottom of the page. This was a better way to represent it rather than displaying all the conditions on the same page.
5. Font size was too small, making it difficult to read.
**Page 3: Desktops: NetVista**

1. Users preferred to have different models displayed in a tabular form and presented on the same page rather than spread over pages. A vertical tabulation was preferred over a horizontal one.

2. There was an option for users to make a visual tour of the PC elements they were interested in.

**Page 4: Choose Your Form Factor**

Users are asked to choose between Desktop and MicroTower. No information presented on either series, which users felt was essential to make a decision.

**Page 5: IBM NetVista**

Users have to choose a processor, an operating system and a productivity package. No problems on this page.

**Page 6: Build Your Own System**

1. Help provided was quite bad. (Help me decide) On a click, a pop-up window appeared with the information. Users did not mind this since they initiated it, but the information was of no use to the users.

2. Amount of information reduced on this page as compared to the previous pages.

3. Number of options provided was not too much, which was liked by some and disliked by others.

4. Price updates with the customization process were liked. A price update at the side helped because the users didn’t have to scroll to see the updates.

5. The users didn’t always feel in control.

6. A separate option to view the selected PC configuration was appreciated.

**Page 7: Add to Shopping Cart**

Users liked the option of saving their choices and coming back later to purchase.

All the web pages were consistent as far as look was concerned, which was appreciated.
Dell

Page 1: http://www.dell.com
1. The website has an uncomplicated look.
2. The dynamically changing image on the homepage does not give the user a familiarity with the site.
3. Some users were able to relate to a human image on the first page, others felt it was meaningless since it had nothing to do with the purpose of the page.
4. Classification based on the market segment and the product makes it easy for the user to select the option most relevant to him/her.
5. Page shows blank areas on the right side, they should have covered it up.

Page 2: Home & Home/Office
1. Pop-up window appears- most users were quite irritated by this feature.
2. More colors used on this page to highlight different information. The same information on a different page if superseded by something more important (company based) was presented in a different color.
3. Most users disliked excessive scrolling.
4. Conditions and policies were placed at the bottom of the page and the font size was too small.
5. Too much information on the page.

Page 3: Choose a Dimension
1. The use of tables to compare models was appreciated.
2. Most users preferred to have different models presented on the same page rather than spread over several pages.

Page 4: Dimension 4100 Desktop
1. Bulleted form of information looks neat.
2. The marketing students did not feel the need for detailed specifications.
3. The page was not attractive. A few did not want to spend time on this page.
4. Excessive scrolling was required.

Page 5: Customization Your Desktop
1. Some users felt that this page should have appeared sooner.
2. The help provided was good. On a click, a pop-up window appeared with the information.
3. Amount of information this page was not as much as the previous pages.

Page 6: Customization Your Dell System
1. The number of options provided was very high, which was liked by some and disliked by others. Engineering users liked the number of options provided but marketing students felt that so much information was unnecessary.
2. Price updates with the customization process were liked.
3. Customization was easy and the users felt in control.
4. Different page viewing options and printable summary feature was appreciated.

Page 7: Add to Shopping Cart
1. Most users liked the option of saving their choices and coming back later to purchase.
2. The layout was good but the font size was too small
3. Policies and conditions could have been mentioned in different links at the top rather than at the bottom since scrolling was required.
**Gateway**

**Page 1:** http://www.gateway.com

1. A lot of empty space is prevalent on the website.
2. The company motto gave the impression that it is customer oriented and wants to help the customer.
3. Classification based on the market segment makes it easy for the user to select the option most relevant to him/her.
4. The font size could be increased and the text at the bottom does not catch one’s attention.

The company got positive reviews.

Since students were viewing the website, the category of ‘Home & Student Learning’ caught their attention. They got the feeling that it was more personalized.

**Page 2: Home and Student Learning**

1. Some users suddenly got the feeling that they were on a different web site. The layout on this page was very different from the first page. There was much more information on this page.
2. The subjects liked the ‘Shop by solution’ and ‘Shop by Price Option’. The entire menu on the left was well laid out.
3. The ‘Deal Of The Week’ caught the attention of most users.
4. Conditions and policies were placed at the bottom of the page and the font size was too small - most users did not like this.
5. Colors were inconsistent in the page.

**Page 3: Students**

1. The use of tables to compare models was appreciated.
2. Users preferred to have different models presented on the same page rather than spread over pages.
3. Links were not provided at the appropriate places.
4. The page layout was consistent with the previous page.
Page 4: Gateway Solo 1150cs Student-on-the-go PC
1. This page seemed inconsistent with the previous pages.
2. The number of options for customization were too less. Most users wanted more variety in the customization process.
3. Too much of scrolling required.
4. The page was so unattractive for some that they did not notice the ‘Chat Now’ option. The users felt that it should have been highlighted.
5. The price update option was at the bottom and the users had to explicitly click on it to get the price after they chose their configuration. This was not to the liking of some users who wanted it placed somewhere easily visible.
6. The users who had customized a desktop on the Apple website were biased by the features offered on that site.

Page 5: Add to Shopping Cart
1. The layout of the page was better than the previous page.
2. Most users were unclear about the differences between ‘Checkout’ and ‘Express Checkout’.
3. The ‘Need Help’ and ‘Chat’ options stood out.

Page 6: Home & Home/Office
Some users did not choose the ‘Students’ option but used the ‘Home and Home/Office’ option. There was a greater range of customization options on this page. On hindsight, most users preferred the ‘Home and Home/Office’ option.
Apple

**Page 1: http://www.apple.com**
1. The dynamically changing image on the homepage does not give the user a familiarity with the web site.
2. Page has marquee text- some people liked this and some did not.
3. Most users liked the visuals that displayed the accessories that could be used with the computer.
4. Most users felt that the site emphasized on laptops more than desktops.
5. The link to the customization page was hard to find. The users felt that Apple was not really pushing to sell through this page and that it was more of a general home page.
6. The font was too plain when compared with the visuals presented.

**Page 2: Store - Start of Customization**
1. Most users liked the visuals on this page. The page was consistent with the previous page.
2. The Font size was too small and italicized, making it difficult to read. A lot of scrolling was required.
3. Options like software and accessories could have been offered later in the customization process.
4. Most users liked the fact that the links used the same color as the different models.

**Page 3: Choose your iMac**
1. The use of tables to compare models was appreciated. Most users liked the fact that the prices were mentioned along with the visuals.
2. The page is consistent with the previous pages.

**Page 4: Select Memory for your iMac**
1. This page is not as colorful as the other pages. The page seems quite plain and a lot of area has been unused.
2. The important features have been highlighted.
3. The font size is small, making reading difficult.

Page 5: Select AirPort for your iMac
The users had the same reactions to this page.

Page 6: Do you need anything else?
1. Most users liked this page. The price update and a summary report of the features selected to date was a popular feature.
2. More options should have been provided to the user. Very limited range of selections. The company seemed to have more options for accessories like movie players and music files than for integral parts of the computer like monitors or processor configurations.
3. Most users liked the way the website was designed but felt that it did not help in customization. Most users were influenced by the fact that Apple computers were not the typical Windows based systems.
Results and Analysis

The interviewees were asked some specific and some general questions during their interviews. The following are some of the comments the interviewees made on issues that were crucial to the outcome of this pilot study.

Quantifiable Elements of the Website

Some of the quantifiable web elements that were identified are:

- Number of clicks to get to the customizations page
- Number of check boxes, radio buttons
- Number of pull down menus

The number of quantifiable elements provided by the web site is an estimate of the extent of product variety being offered by the company. Each of the four web sites studied were examined for the number of options they provide to the user. The following is a summary the options that each of the company provide

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>DELL</th>
<th>GATEWAY</th>
<th>APPLE</th>
<th>IBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customizable Web Page</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Type Of Customization</td>
<td>Collaborative – Customization process involves both the user and the manufacturer.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clicks to Customization Page</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Number Of Drop Down Menus</td>
<td>23</td>
<td>12</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Number Of Radio Buttons</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Number of Check Boxes</td>
<td>68</td>
<td>59</td>
<td>23</td>
<td>8</td>
</tr>
</tbody>
</table>

Figures 2 through 5 in the following pages give an idea of the comparative values of the quantifiable web elements compared for the four websites.
1. Number of Clicks to the Customization Page

The figure above indicates that Dell and IBM require an extra click to get to the customization page. This may irate the customer on a bad day especially if the user is familiar with the Gateway and Apple sites, which reach the customization page faster.

2. Number of Drop Down Menus

Figure 3 gives an indication of the number of basic options that each company provides. Dell clearly leads the way here with 23 options, quite a bit more than the next highest
number of 17 for IBM. The number of options could work both ways though and depends on the customer’s frame of mind and background.

3. Number of Radio Buttons

![Figure 4](image)

Apple does not use any radio buttons on its site. This need not necessarily be a good thing as some customers may actually prefer a few extra options, which would allow them greater control over the customization. Dell again leads the pack, providing its users with many more options.

4. Number of Check Boxes

![Figure 5](image)
The number of check boxes is another element that was noted on the four websites. Dell and Gateway provide a huge number of options in this regard, with 68 and 59 respectively. IBM is very conservative, providing only 8 checkboxes. Again, this may not be a bad move, but it may have different effects on different users.

**Non-Quantifiable Elements of the Website**

1. Effectiveness in portraying company objective

Interviewees were asked if the web pages clearly conveyed the company objective, if any. Interviewee reactions were quantified and are shown below. Effectiveness was measured on a scale of one to five, with one being the least effective and five being the most.

![Effectiveness in portraying company objective](image)

From the results, Gateway seems to have conveyed their message most effectively to their online customers, scoring a 4.25 on a scale of 5 on the average. Dell came second, scoring 3.75. Interviewees felt that both companies were clear in their objective ‘to sell computers online’, while IBM and Apple succeeded to a lesser extent.

**Interviewees’ comments:**

- Gateway’s website had a “personal touch” and that Gateway seemed “willing to help you” by using a simple one-liner on their homepage that said “*You’ve got a friend in the business*”. 
Gateway scored well by providing a “Beginner PC” option.
- It was obvious that Dell were trying too hard to convince the user to buy a PC.
- Dell was trying to harp too much on their model specifications and technical offerings.
- Apple creates a comfortable shopping environment by not forcing the customer to buy a product and by providing the user with pre-configuring systems. It is clear that Apple is using its web space to advertise its products than.

2. Subtleness of web page
A lot of sites scream out at the online user. The interviewees were asked to evaluate the subtleness of the Websites on a scale of 1 to 5, with 5 being the most preferred and 1, the least. The following chart shows how the companies’ websites fared on this count.

![Was the web site subtle?](image)

Gateway and Apple scored an average of 3.75 each on a scale of 5, while Dell scored 3.5. IBM fared poorly scoring 3 out of a possible 5. Most interviewees felt comfortable with the uncomplicated design templates that both Gateway and Dell have adopted.

The issue of subtleness of the opening web page could be crucial to customer retention at the web-site and could make the difference between a successful sale and the customer jumping to another web-site.
**Other observations**

- Dell’s pages are not ‘classy’ as their homepage.
- The use of blue for the header color in the Dell and IBM websites is a good choice.

### 3. Background color

Interviewees were asked to rate the appropriateness of the background color. This web element was ranked on a scale of one to five, with one being the least preferred and five, the most preferred. The following chart shows the comparative scores of the four websites.

![How do you rank the background color?](image)

**Figure 8**

Almost all websites scored poorly, with Gateway averaging the highest with 3.5 out of a possible five. IBM’s website with a score of 2.5 was rated as having the poorest background color. Almost all interviewees played down on the predominantly white background that these four websites employed. Although this might not be a deterrent to buying a product online, it can certainly affect a customer’s online experience.

**Other observations**

- White as a predominant background color in most websites is not appealing.
4. Ease of locating information

Studies show that a large percentage of online customers abandon their online customization efforts either due to lack of availability of information or difficulty in locating information. The interviewees were asked to rate the websites in terms of ease of use on a scale of one to five, with one being the lowest rating and five, the highest.

![Bar chart showing the ease of locating information on different websites.]

Dell topped this category with a score of 4.5 on a possible 5. Gateway scored 4.25 on the same scale, IBM, a low 2.75 while Apple scored 4.0. IBM’s low score could be attributed to the fact that their homepage emphasized IBM’s current e-commerce activities and

Other observations:
- Dell’s links and pictures are random and misleading.
- It is not clear which link leads to the customization page on Apple’s website.

5. Ease of navigation

Essential to a stress-free and satisfying online experience is the ease with which one can navigate the website. Many a time online consumers abandon and switch to other websites when the navigation is not easy. The interviewees were asked to rate the websites based on ease of navigation on a scale of 1 to 5, five being the easiest to navigate while customizing a desktop, and one, the toughest.
Gateway scored the highest with 4.25 out of a possible 5 while Dell and Apple both scored 3.75. IBM scored 3.25.

**Other observations:**
- Apple’s website with fewer customization options and steps made navigation easy.
- Navigation in the IBM website is intuitive, but would have been easier if appropriate graphics

**6. Font size and color**
Interviewees were asked to evaluate the websites’ use of font size and font color on a scale of 1 to 5, with 5 being most favored and 1 being the least effective. The results are shown in Figure 11.

Apple scored the highest with 3.75, followed by Gateway, IBM and Dell in that order. Dell’s poor showing in this category could be because of their effort to pack in as many options in a page as possible.
Other observations:
- Compared to Gateway, Apple’s font size was more readable.
- Dell’s font size was too small, although font color is acceptable.

7. Information per screen
A lot of websites flood the user with information that he may not need. This is a factor that influences most consumers’ online experience in a negative way. The interviewees were asked to comment on the amount of information displayed per screen and rate each website on a scale of 1 to 5, with 5 being the most agreeable and 1, the least.

All websites included in the survey fared poorly on this count. Gateway however topped the ratings with 3.5 out of a possible 5 with Apple, Dell and IBM following in that order.
**Other observations**
- IBM’s site was too cluttered and one doesn’t feel in control during the customization process.
- Dell had too many drop down menus.
- Dell, Gateway and IBM have poorly utilized the web page layout.

**8. Effectiveness of visual aids**
Visual stimulation is an effective advertising and marketing tool that a lot of websites use to their advantage. The interviewees were asked to evaluate the effectiveness of visual aids/graphics on a scale of 1 to 5, 5 being the most effective and 1, the least. The following graphs show the compiled results.

![How Effective are the Visual Aids?](image)

Apple topped this category with 4.25 on a possible 5, followed by Gateway with 3.75, and Dell and IBM at 3 each. Apple scored with the use of eye-catching graphics.

**Other observations:**
- Apple makes an impact with its revolutionary-looking PCs and PC accessories.
- IBM’s static graphic of the computer being customized during the customization process was a plus to their website design.
- Dell and Gateway have used images of their PCs at appropriate junctures in the customization process.
9. Customization options
The numbers of options provided during the customization process is probably the most important factor that influences user opinion. The reaction to the number of options is largely governed by what the user’s background and net exposure to a certain extent.

![Bar chart showing Are there sufficient options provided for Customization?

Figure 14

The interviewees were asked to evaluate the number of options that the websites provided and rank them on a scale of 1 to 5, 5 being the most preferred and 1, the least.

Gateway scored the maximum with 4 out of a possible 5, followed by Dell and Apple with 3.25 each. IBM scored the least with 2.75. The number of options provided by a website can be viewed differently by different sets of customers.

Other observations:
- IBM does not have enough options for accompanying software packages.
- IBM does not have as many options as Dell.
- Apple pre-configured systems are convenient for a user who is not particular about technical details.
10. Customer’s perception of company image after online customization
The interview process concluded with the interviewees answering the question of whether or not their impression of the company had changed after their online experience. The results are shown in the graph below.

![Customer perception of brand after online customization](image)

While the reaction was mixed in the case of Gateway and Dell, the online customization experience had changed the customer brand perception of IBM and Apple in only two cases.

Factors that contribute to this result could be:
1. The fact that the users were unaware of customization tools on Dell and Gateway’s websites.
2. Their ability to emphasize their focus on the PC market.
3. The inability of IBM to focus on their PC sales.
4. Apple and IBM’s priorities seem to lie in advertising their products rather than drawing the customer to buy their products online.
Guidelines for Good Web Design

The web sites were evaluated on the basis of the interviewees’ experiences.

For evaluation of the customer experience on a site, the following strategic questions were considered, for which the responses were obtained from the questionnaires.

- What are the company's goals for the site?
- Who are the target customers, and what are their goals?
- Does this site help customers accomplish their goals and the company's goals?
- Do customers experience something quick and easy enough to bring them back, and keep them from going to competitors?

The sites that generate the best customer experiences get traffic, higher revenues and a stronger brand. In contrast, the sites with bad customer experiences - even with the best back-end technology or a great off-line brand - lose customers and revenue at an astonishing rate.

**Guidelines to enhance online experience**

- Clear and concise content
- Quick page download
- Simple page design
- Appropriate use of graphics
- Jargon-free language
- Useful Online Help
- Ease of navigation
Conclusions

The objective was to examine if website design elements affect the customer’s perception of a brand. The study led to several interesting observations. One of them was that the web site does influence a customer’s perception of a brand to a certain extent. The extent of this influence could not be found conclusively due to the small sample size. The following were some of the findings based on the interviewee responses:

- Dell and Gateway are clear on their objective
- Customization process is not intuitive in Apple and IBM
- Preferred to buy online because information is available at one’s fingertips
- Web Design elements play a definite role in influencing online customer experience
  a) Layout organization of all the sites should be reconsidered
  b) Pop-up windows were unpopular (even if they are relevant)
  c) Ergonomic issues (navigation, number of clicks) need to be considered
- Even experiments conducted with a small sample size, as in this pilot study, show a reversal in consumer brand perception after a brief online customization process.
- A larger and more diverse sample size must be experimented with in order to arrive at any definite conclusion.
- A detailed analysis of web page content and its effects on online consumer brand experience must be carried out to be able to make any further recommendations.
- Web-layout / site organization, customer feedback tools and judicious use of graphics can be instrumental to the success of a web.
- Effective design and display of the company logo can influence customer brand perception.
- An effective way to increase online sales is to enhance one’s web presence.
Future Work

The present study was a pilot study. One of the prime objectives of this study was to develop a methodology for future work, based on observations and conclusions. The following modifications can be made in future research.

**Larger Sample Size**

The total sample size for our study consisted of 8 subjects. The responses that we received from these subjects were influenced by their previous online and offline experiences. There were very few observations that were consistent for all users. In order to make definite conclusions, it is necessary to take a much larger sample so as to obtain reasonable results.

**Subjects from Diverse Backgrounds**

The study included students from marketing and engineering. The observations suggest that their academic backgrounds influenced their perception of the web site. Most participants in the study were aged between 21-25. They have been actively exposed to the Web and are familiar with the companies being studied. The sample could be made more diverse with the inclusion of users from different age groups, and varying economic and educational backgrounds.

**Compare user experiences on an e-commerce site v/s website that offers only content**

This may prove to be a useful study because people do not buy from the web as often as they browse the net for content. The user experiences and observations while browsing the web may influence their expectations of a web site look and feel when they visit a site for purchase.
Ties to the course question

*How can product realization teams provide increased product variety at less cost for a highly competitive, global marketplace?*

Companies can offer an increased product variety at a low cost and yet survive in a highly competitive environment by employing the following methods.

1. Providing online customization (collaborative customization) tools to ensure product variety.
2. Increasing modularity within the product family.
3. Increasing compatibility between modules (commonality among interfaces).
4. Staying in constant touch with the customer through the World Wide Web to increase customer participation in the customization process. Maintaining a continuous Internet presence with constantly evolving web strategies. This ensures that the company interacts with the global marketplace.
References

2. *We All Want to be Like Mike*: The Internet and Personal Computer Value Chain – Martin Kenney.
4. *GCN Lab Reviewers examine four PC manufacturers’ Web Sites and find Dell’s site the easiest to use* – Jason Byrne, GCN Re
5. *Internet-Based Product Customization Strategies* – Thesis Work, Amit Kapadia

7. World Wide Web
   a) [www.ibm.com](http://www.ibm.com)
   b) [www.dell.com](http://www.dell.com)
   c) [www.apple.com](http://www.apple.com)
   d) [www.gateway.com](http://www.gateway.com)
   e) *Dell Computer v/s Compaq Computer: The Effectiveness of Direct Marketing Websites* - [www.public.iastate.edu/~reddog/paper1.html](http://www.public.iastate.edu/~reddog/paper1.html)
   g) *Customers : One Click Away From Goodbye – Bryan Eisenberg*
      [www.clickz.com/article/sc.3789.html](http://www.clickz.com/article/sc.3789.html)
   h) *Internet Branding and the User Experience* – Robert Manning
      [www.clickz.com/article/sc.1516.html](http://www.clickz.com/article/sc.1516.html)
   i) *GCN Lab Reviewers examine four PC manufacturers’ Web Sites and find Dell’s site the easiest to use* – Jason Byrne (Source Unavailable)
APPENDIX
## Appendix 1: Results of the Pre-Questionnaire - Sample Demographics

<table>
<thead>
<tr>
<th>Interviewee's Initials</th>
<th>QW</th>
<th>PN</th>
<th>HB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>21</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>African American</td>
<td>Asian</td>
<td>Asian</td>
</tr>
<tr>
<td>Major</td>
<td>Marketing</td>
<td>Industrial Engg</td>
<td>Industrial Engg</td>
</tr>
<tr>
<td>Current education level</td>
<td>Senior</td>
<td>I year Grad</td>
<td>I year Grad</td>
</tr>
<tr>
<td>Own a computer</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>What kind (if the above answer is yes)?</td>
<td>Gateway</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Was it purchased?</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overall computer knowledge</td>
<td>Average</td>
<td>Average</td>
<td>Average</td>
</tr>
<tr>
<td>Weekly computer usage hr/week</td>
<td>42</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Frequency of online purchase</td>
<td>Never</td>
<td>Once / Month</td>
<td>Never</td>
</tr>
<tr>
<td>Web site first interviewed</td>
<td>IBM</td>
<td>Dell</td>
<td>Apple</td>
</tr>
<tr>
<td>Familiarity of the above Web site</td>
<td>Average</td>
<td>Not familiar</td>
<td>Familiar</td>
</tr>
<tr>
<td>Second web site interviewed</td>
<td>Gateway</td>
<td>IBM</td>
<td>Gateway</td>
</tr>
<tr>
<td>Familiarity of the above Web site</td>
<td>Familiar</td>
<td>Familiar</td>
<td>Not Familiar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewee's Initials</th>
<th>GT</th>
<th>AC</th>
<th>BS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Asian</td>
<td>Caucasian</td>
<td>Asian</td>
</tr>
<tr>
<td>Major</td>
<td>Industrial Engg</td>
<td>Marketing</td>
<td>Industrial Engg</td>
</tr>
<tr>
<td>Current education level</td>
<td>I year Grad</td>
<td>Senior</td>
<td>I year Grad</td>
</tr>
<tr>
<td>Own a computer</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>What kind (if the above answer is yes)?</td>
<td>-</td>
<td>IBM</td>
<td>-</td>
</tr>
<tr>
<td>Was it purchased?</td>
<td>-</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Overall computer knowledge</td>
<td>Extensive</td>
<td>Extensive</td>
<td>Average</td>
</tr>
<tr>
<td>Weekly computer usage hr/week</td>
<td>20</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Frequency of online purchase</td>
<td>Once / Week</td>
<td>Once</td>
<td>Once / Week</td>
</tr>
<tr>
<td>Web site first interviewed</td>
<td>Gateway</td>
<td>Gateway</td>
<td>IBM</td>
</tr>
<tr>
<td>Familiarity of the above Web site</td>
<td>Familiar</td>
<td>Average</td>
<td>Familiar</td>
</tr>
<tr>
<td>Second web site interviewed</td>
<td>Apple</td>
<td>Apple</td>
<td>Dell</td>
</tr>
<tr>
<td>Familiarity of the above Web site</td>
<td>Familiar</td>
<td>Average</td>
<td>Familiar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewee's Initials</th>
<th>JS</th>
<th>CA</th>
</tr>
</thead>
</table>

39
<table>
<thead>
<tr>
<th>Age</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>Caucasian</td>
</tr>
<tr>
<td>Major</td>
<td>Marketing</td>
</tr>
<tr>
<td>Current education level</td>
<td>Senior</td>
</tr>
<tr>
<td>Own a computer</td>
<td>No</td>
</tr>
<tr>
<td>What kind (if the above answer is yes)?</td>
<td>Gateway</td>
</tr>
<tr>
<td>Was it purchased?</td>
<td>No</td>
</tr>
<tr>
<td>Overall computer knowledge</td>
<td>Average</td>
</tr>
<tr>
<td>Weekly computer usage hr/week</td>
<td>20</td>
</tr>
<tr>
<td>Frequency of online purchase</td>
<td>Once</td>
</tr>
<tr>
<td>Web site first interviewed</td>
<td>Gateway</td>
</tr>
<tr>
<td>Familiarity of the above Web site</td>
<td>Average</td>
</tr>
<tr>
<td>Second web site interviewed</td>
<td>IBM</td>
</tr>
<tr>
<td>Familiarity of the above Web site</td>
<td>Average</td>
</tr>
</tbody>
</table>
APPENDIX 2.1: Questionnaire - Web Design and Brand Experience

Name of the Company:
Name of the Student:
Time:

Web Design and Brand Experience
Part I

Open the first web page.

Tell me your first impression of this page. (Allow person to elaborate.)

What do you immediately notice? What stands out?

What does it make you think of? (Note any references to advertising/marketing or personal experience with the product. Also note any positive or negative feelings.)

What else do you notice? What does it make you think of?

Is this a page you would like to spend time looking at, or would you prefer to move on? What is it about the page that makes you want or look at it longer (or move on)?

Please continue browsing. (This prompt is meant to get the person to click to a new page or scroll down/up.)

Tell me your first impressions of this page (section). (Allow person to elaborate.)
What made you choose this option (page/section)?

Was it easy or difficult to get to this new page (or scroll to this new section)?

Tell me your first impressions of this page (section).

What do you immediately notice? What stands out? What does it make you think of?

Is this a page you would like to spend time looking at, or would you prefer to move on? What is it about the page that makes you want to look at it longer (or move on)?

(Repeat previous section, if necessary.)

Please continue browsing. Now we are going to be more specific.

What characteristics do you like about this particular web page? (Note whether they mention functional or symbolic characteristics.)

What is it about each characteristic that you like?

What characteristics do you not like?
What is it about these characteristics that you do not like?

Let me point out a couple characteristics. (Pick out either functional or symbolic characteristics, whichever they did not mention.) What do you like/dislike about them?

What does each of these characteristics say about the company?

What do you think the company is actually trying to say?

(Repeat previous section, if necessary.)

Now let’s go back to the beginning of the web site.

What other thoughts come to mine, that we may not have covered?

Feel free to go through the site again and make comments as you go along.

After the completion of the study, we will ask questions about the overall experience with the website and the online product customization process.

Were there too many options? Did you ever feel overwhelmed by the amount of choices that you have to make? Did you feel that your choices were too limited at times?
Were the next steps in the process intuitive? Was the site easy to navigate as you proceeded through selecting different options?

Did you ever have any difficulty selecting an option that you were not familiar with? Did you use help at any time? If so, was it helpful when selecting that option?

Did you like the visual/price updates on the website? Did the frequency of updates impact the customization process in any way (e.g., did you consider more options because the price was easily updateable, or did you examine several color options before you picked your final color)? If they did not exist, would they have been helpful when customizing your product?
APPENDIX 2.2: Questionnaire - Qualitative Analysis

Unless otherwise specified, please rate the following on a scale of 1 to 5-
1. Strongly disagree.
2. Disagree.
3. Satisfactory
4. Agree.
5. Strongly Agree.
7. Not Applicable.

A. First Impression

1. The site objective is clear when you first enter it.
2. The site is easy to access, the graphics get downloaded fast.
3. Finding information is easy
4. Important information is highlighted.
5. The website layout / content is subtle and does not ‘scream at you’.
   Remember to take color, contrast, font sizes, pop-up menus, flashing text, etc. into account.

B. Screen Design – Aesthetics

1. The background color is appealing.
2. The font style and size are clear and easy to read
3. The font color is appropriate.
4. Information per screen was the right amount
5. The text layout was organized and facilitated easy reading

C. Screen Navigation

1. The site provides sufficient navigation cues
2. Site navigation is easy.
3. You feel you are in control during the process of navigation.
4. Which of the following would you prefer with respect to your requirements.
   a. All information on the same page, which requires fewer mouse clicks.
   b. Information spread over pages, which needs more mouse clicks
5. Did additional windows pop up (Yes/No)?
6. If yes it helped in navigation.
7. If No do you recommend one (Yes/No)?
8. The number of links per screen is appropriate.
9. I feel comfortable with the amount of scrolling.
10. There are buttons to go back, forward, and to the homepage at all times (Yes / No)
11. The link titles/ icons are meaningful.

D. Visual Aids

1. The visuals and images are effective.
2. The text is very informative and does not need visual aids.
3. Which do you prefer prior to presentation of the main content
   a. Introductory text.
   b. Introductory image
   c. Introductory image with text providing a brief explanation
4. Would you like more audio/visual aids (Yes/No)?

E. Website Content

1. Your impression of the company has changed after you visited the website? (Yes / No)
2. The information provided is relevant to the customization process.
3. The range of options meet your requirements

F. Website Support

1. The ‘HELP’ provided by the website is sufficient
2. Are there online chats (Yes/No)?
3. Is there contact information provided (Yes/No)?
4. If Yes, it is easy to find (On a scale of 1-5)
5. Is there a database search provided (Yes/No)?
6. If Yes, it is helpful (On a scale of 1-5)
7. Have you contacted technical support (Yes/No)?
8. If Yes, it is helpful (On a scale of 1-5)
### APPENDIX 3.1: QUALITATIVE ANALYSIS - IBM

#### SUMMARY OF RESULTS : QUALITATIVE ANALYSIS

<table>
<thead>
<tr>
<th>Q.No</th>
<th>PN</th>
<th>BS</th>
<th>Engg</th>
<th>AC</th>
<th>JS</th>
<th>Mktg</th>
<th>Avg</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>Site Objective, Satisfactory, Mktg Prefer over Engg.</td>
</tr>
<tr>
<td>A2</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>Site Downloaded Fast, Yes, Most Agreed</td>
</tr>
<tr>
<td>A3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>2.75</td>
<td>Finding information was neither easy nor very hard, NS</td>
</tr>
<tr>
<td>A4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Some, Important information was highlighted</td>
</tr>
<tr>
<td>A5</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>Website was subtle, Mktg over Engg</td>
</tr>
<tr>
<td>B1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2.5</td>
<td>Background Not Very Appealing, OK, Engg Over Mktg</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>Font Size Ok</td>
</tr>
<tr>
<td>B3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3.5</td>
<td>Font Color OK</td>
</tr>
<tr>
<td>B4</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>2.5</td>
<td>Information per screen is more than preferred by users.</td>
</tr>
<tr>
<td>B5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.25</td>
<td>Text Layout Ok</td>
</tr>
<tr>
<td>C1</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.5</td>
<td>Provides Suff. Navigation tools</td>
</tr>
<tr>
<td>C2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.25</td>
<td>Navigation is Easy</td>
</tr>
<tr>
<td>C3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.25</td>
<td>In Control of Navigation</td>
</tr>
<tr>
<td>C4</td>
<td>NS</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td></td>
<td>Depends on Personal Preferences</td>
</tr>
<tr>
<td>C5</td>
<td>No</td>
<td>Yes</td>
<td>0</td>
<td>Yes</td>
<td>No</td>
<td>0</td>
<td>0</td>
<td>Yes, Additional Windows Popped</td>
</tr>
<tr>
<td>C6</td>
<td>NA</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pop Up Windows Not helpful</td>
</tr>
<tr>
<td>C7</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Add. Windows Reco, Depends on Personal Preferences</td>
</tr>
<tr>
<td>C8</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>2.75</td>
<td>Number of links were OK</td>
</tr>
<tr>
<td>C9</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>Engg. Felt not comfortable scrolling, Mktg Ok</td>
</tr>
<tr>
<td>C10</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes, buttons to homepage</td>
</tr>
<tr>
<td>C11</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>The links were meaningful</td>
</tr>
<tr>
<td>D1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>Yes, Visual Aids were effective</td>
</tr>
<tr>
<td>D2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2.25</td>
<td>Text Needs Visual Aids</td>
</tr>
<tr>
<td>D3</td>
<td>C</td>
<td>C</td>
<td></td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td>Introductory Image + Text - Strongly Recommend</td>
</tr>
<tr>
<td>D4</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Would Prefer more Audio Visual Aids</td>
</tr>
<tr>
<td>E1</td>
<td>No</td>
<td>No</td>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Company Impression Did Not Change much after seeing Web</td>
</tr>
<tr>
<td>E2</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>Information Provided is Relevant, Mixed opinions</td>
</tr>
<tr>
<td>E3</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>Range of Options meet Requirements : Personal Pref.</td>
</tr>
<tr>
<td>F1</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2.75</td>
<td>The help info. provided is Satisfactory</td>
</tr>
<tr>
<td>F2</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Hard to locate online help, it is available</td>
</tr>
<tr>
<td>F3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Contact Information is Provided</td>
</tr>
<tr>
<td>F4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2.5</td>
<td>3.25</td>
<td>Contact Information was easy to find</td>
</tr>
<tr>
<td>F5</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Search is Provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.25</td>
<td>Search is Helpful</td>
</tr>
<tr>
<td>F7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Not Contacted Technical Support</td>
</tr>
<tr>
<td>F8</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>Not Contacted Technical Support, Can't comment</td>
</tr>
</tbody>
</table>
### COMAPANY : DELL

**SUMMARY OF RESULTS : QUALITATIVE ANALYSIS**

<table>
<thead>
<tr>
<th>Q.No</th>
<th>BS</th>
<th>PN</th>
<th>Engg</th>
<th>AC</th>
<th>JS</th>
<th>Mktg</th>
<th>Avg</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>3.75</td>
<td>Site Objective Very Clear, Mktg Prefer over Engg.</td>
</tr>
<tr>
<td>A2</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4.25</td>
<td>Site Downloaded Fast, Yes, Most Agreed</td>
</tr>
<tr>
<td>A3</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4.5</td>
<td>Finding information was very easy</td>
</tr>
<tr>
<td>A4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>Some, Important information was highlighted</td>
</tr>
<tr>
<td>A5</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>3.5</td>
<td>Website was subtle, Mktg over Engg</td>
</tr>
<tr>
<td>B1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Back Ground Not Very Appealing, OK</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2.75</td>
<td>Font Size Ok</td>
</tr>
<tr>
<td>B3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.25</td>
<td>Font Color OK</td>
</tr>
<tr>
<td>B4</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>Information per screen is OK</td>
</tr>
<tr>
<td>B5</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.25</td>
<td>Text Layout Ok</td>
</tr>
<tr>
<td>C1</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3.75</td>
<td>Provides Suff. Navigation tools</td>
</tr>
<tr>
<td>C2</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3.75</td>
<td>Navigation is very Easy</td>
</tr>
<tr>
<td>C3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3.75</td>
<td>In Control of Navigation</td>
</tr>
<tr>
<td>C4</td>
<td>B</td>
<td>NS</td>
<td>A</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td>Depends on Personal Preferences</td>
</tr>
<tr>
<td>C5</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Yes, Additional Windows Popped</td>
</tr>
<tr>
<td>C6</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1.5</td>
<td></td>
<td>1.5</td>
<td>Pop Up Windows Not helpful</td>
</tr>
<tr>
<td>C7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Add. Windows Reco., No</td>
</tr>
<tr>
<td>C8</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3.75</td>
<td>Number of links were OK</td>
</tr>
<tr>
<td>C9</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>Engg. Felt not comfortable scrolling, Mktg Ok</td>
</tr>
<tr>
<td>C10</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Yes, buttons to homepage</td>
</tr>
<tr>
<td>C11</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>The links were meaningful</td>
</tr>
<tr>
<td>D1</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>Yes, Visual Aids were effective</td>
</tr>
<tr>
<td>D2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>Text Needs Visual Aids</td>
</tr>
<tr>
<td>D3</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Introductory Image + Text - Strongly Recommend</td>
</tr>
<tr>
<td>D4</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Audio Visual Aids, User Preferences</td>
</tr>
<tr>
<td>E1</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Company Impression Change After Web, Mixed Opinions</td>
</tr>
<tr>
<td>E2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.75</td>
<td>Information Provided is very Relevant</td>
</tr>
<tr>
<td>E3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.25</td>
<td>Range of Options meet Requirements : Personal Pref.</td>
</tr>
<tr>
<td>F1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>The help info. provided is good</td>
</tr>
<tr>
<td>F2</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Online help available</td>
</tr>
<tr>
<td>F3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Contact Information is Provided</td>
</tr>
<tr>
<td>F4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Contact Information was easy to find</td>
</tr>
<tr>
<td>F5</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Search is Provided</td>
</tr>
<tr>
<td>F6</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>Search is Helpful</td>
</tr>
<tr>
<td>F7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Not Contacted Technical Support</td>
</tr>
<tr>
<td>F8</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td>Not Contacted Technical Support, Can't comment</td>
</tr>
</tbody>
</table>
### APPENDIX 3.3: QUALITATIVE ANALYSIS - GATEWAY

#### SUMMARY OF RESULTS: QUALITATIVE ANALYSIS

<table>
<thead>
<tr>
<th>Q.No</th>
<th>HB</th>
<th>GT</th>
<th>Engg</th>
<th>C</th>
<th>QW</th>
<th>Mktg</th>
<th>Avg</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.25</td>
<td>Site Objective Very Clear, Mktg Prefer over Engg.</td>
</tr>
<tr>
<td>A2</td>
<td>5</td>
<td>4</td>
<td>4.5</td>
<td>5</td>
<td>4</td>
<td>4.5</td>
<td>4.5</td>
<td>Site Downloaded Fast, Yes, Most Agreed</td>
</tr>
<tr>
<td>A3</td>
<td>5</td>
<td>4</td>
<td>4.5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4.25</td>
<td>Finding information was very easy</td>
</tr>
<tr>
<td>A4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Some Information was highlighted</td>
</tr>
<tr>
<td>A5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.75</td>
<td>Website was subtle, Mktg over Engg</td>
</tr>
<tr>
<td>B1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>Back Ground OK</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.25</td>
<td>Font Size Ok</td>
</tr>
<tr>
<td>B3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>Font Color OK</td>
<td></td>
</tr>
<tr>
<td>B4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>Information per screen is OK</td>
</tr>
<tr>
<td>B5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>Text Layout was Good</td>
</tr>
<tr>
<td>C1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>4.25</td>
<td>Provides Good Navigation tools</td>
</tr>
<tr>
<td>C2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.25</td>
<td>Navigation is very Easy</td>
</tr>
<tr>
<td>C3</td>
<td>5</td>
<td>4</td>
<td>4.5</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>In Control of Navigation</td>
</tr>
<tr>
<td>C4</td>
<td>NS</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>Depends on Personal Preferences</td>
</tr>
<tr>
<td>C5</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Yes, Additional Windows Popped</td>
</tr>
<tr>
<td>C6</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>Pop Up Windows Not helpful</td>
</tr>
<tr>
<td>C7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>Add. Windows Reco., No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C8</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>Number of links were OK</td>
</tr>
<tr>
<td>C9</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3.75</td>
<td>Scrolling Was Ok</td>
</tr>
<tr>
<td>C10</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes, buttons to homepage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C11</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3.75</td>
<td>The links were meaningful</td>
</tr>
<tr>
<td>D1</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.75</td>
<td>Yes, Visual Aids were very effective</td>
</tr>
<tr>
<td>D2</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>Text Needs Visual Aids</td>
</tr>
<tr>
<td>D3</td>
<td>NS</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td>Introductory Image + Text - Strongly Recommend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Audio Visual Aids, User Preferences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td>Company Impression Change After Web, Mixed Opinions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>Information Provided is very Relevant</td>
</tr>
<tr>
<td>E3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>Range of Options meet Requirements, Majority agreed strongly</td>
</tr>
<tr>
<td>F1</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4.25</td>
<td>The help info. provided is good</td>
</tr>
<tr>
<td>F2</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>Online help available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Contact Information is Provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>Contact Information was easy to find</td>
</tr>
<tr>
<td>F5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>Yes, But not very prominent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>5</td>
<td></td>
<td>Search is Helpful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>Not Contacted Technical Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F8</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>Not Contacted Technical Support, Can’t comment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX 3.4: QUALITATIVE ANALYSIS - APPLE

### SUMMARY OF RESULTS : QUALITATIVE ANALYSIS

<table>
<thead>
<tr>
<th>Q.No</th>
<th>HB</th>
<th>GT</th>
<th>Engg</th>
<th>QW</th>
<th>C</th>
<th>Mktg</th>
<th>Avg</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>3.5</td>
<td>Site Objective, Satisfactory, Engg Prefer over Mktg</td>
</tr>
<tr>
<td>A2</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.25</td>
<td>Site Downloaded Fast, Yes, Most Agreed</td>
</tr>
<tr>
<td>A3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>Finding information was very easy</td>
</tr>
<tr>
<td>A4</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>Some Information was highlighted</td>
</tr>
<tr>
<td>A5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.75</td>
<td>Website was subtle</td>
</tr>
<tr>
<td>B1</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>2</td>
<td>1</td>
<td>1.5</td>
<td>3</td>
<td>Back Ground Color not to the liking</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>Font Size Ok</td>
</tr>
<tr>
<td>B3</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>Font Color OK</td>
</tr>
<tr>
<td>B4</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.25</td>
<td>Information per screen is OK</td>
</tr>
<tr>
<td>B5</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>3.5</td>
<td>Text Layout was OK</td>
</tr>
<tr>
<td>C1</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3.5</td>
<td>3.75</td>
<td>Provides Suff. Navigation tools</td>
</tr>
<tr>
<td>C2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3.5</td>
<td>3.75</td>
<td>Navigation is Easy</td>
</tr>
<tr>
<td>C3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>In Control of Navigation</td>
</tr>
<tr>
<td>C4</td>
<td>NS</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td>Depends on Personal Preferences</td>
</tr>
<tr>
<td>C5</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Yes, Additional Windows Popped</td>
</tr>
<tr>
<td>C6</td>
<td>NS</td>
<td>N/A</td>
<td>3</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td>Pop Up Windows Not helpful</td>
</tr>
<tr>
<td>C7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Add. Windows Reco., No</td>
</tr>
<tr>
<td>C8</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Number of links were OK</td>
</tr>
<tr>
<td>C9</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Scrolling Was Ok</td>
</tr>
<tr>
<td>C10</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Yes, buttons to homepage</td>
</tr>
<tr>
<td>C11</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.25</td>
<td>The links were meaningful</td>
</tr>
<tr>
<td>D1</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.25</td>
<td>Yes, Visual Aids were very effective</td>
</tr>
<tr>
<td>D2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>Text Needs Visual Aids</td>
</tr>
<tr>
<td>D3</td>
<td>NS</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td>Introductory Image + Text - Strongly Recommend</td>
</tr>
<tr>
<td>D4</td>
<td>No</td>
<td>Yes</td>
<td>N0</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Audio Visual Aids, User Preferences</td>
</tr>
<tr>
<td>E1</td>
<td>No</td>
<td>No</td>
<td>N0</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Company Impression Change After Web, No</td>
</tr>
<tr>
<td>E2</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>Information Provided is very Relevant</td>
</tr>
<tr>
<td>E3</td>
<td>4</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3.25</td>
<td>Range of Options meet Requirements</td>
</tr>
<tr>
<td>F1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.25</td>
<td>The help info. provided is Ok</td>
</tr>
<tr>
<td>F2</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Yes, users could not locate easily</td>
</tr>
<tr>
<td>F3</td>
<td>NS</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>Contact Information is Provided</td>
</tr>
<tr>
<td>F4</td>
<td>NS</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2.5</td>
<td>Contact Information was not easy to find</td>
</tr>
<tr>
<td>F5</td>
<td>NS</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Search is Provided</td>
</tr>
<tr>
<td>F6</td>
<td>N/A</td>
<td>N/A</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
<td>Search is Helpful</td>
</tr>
<tr>
<td>F7</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td>Not Contacted Technical Support</td>
</tr>
<tr>
<td>F8</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td>Not Contacted Technical Support, Can't comment</td>
</tr>
</tbody>
</table>
APPENDIX 4: CUSTOMER WEB EXPERIENCE

1. IBM – www.ibm.com
2. DELL – www.dell.com
3. GATEWAY – www.gateway.com