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E-Commerce Interface Design Parameters and their Relation to Website Popularity

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Summary

E-commerce is becoming increasingly familiar across industries. Customers find it easier to browse and purchase items and services online than by visiting the traditional bricks-and-mortar stores. This allows the customers and firms to save money and generate business faster. The main challenge of e-commerce is acquiring and maintaining good customer relations and trust because the customer only interacts with an electronic interface. Therefore the interface and its design is very important for businesses. This dissertation considers various website interface design parameters and determines whether a relationship between the parameters and the popularity of the website exists. The research methodology utilised is a statistical analysis of a survey of high, medium and low popularity websites and the interface parameters. The e-commerce websites explored fall into the clothing, consumer electronics, and health sectors. The researcher will also discuss the design parameters employed by popular websites.

1. Chapter 1: Introduction

1.1. Overview

Business has changed dramatically during the past several years. Ways of reaching customers have improved in quality and speed. Advances in technology such as telephones, fax machines and the internet have allowed customers to purchase items from the comfort of their own homes with the click of a button. Although technology has made much possible, the reality of electronic commerce (e-commerce) is that it relies on proving to the customer that the company is reputable and capable of delivering quality services and products (Hartley and Worthington-Smith, 2003:i).

In all online e-commerce cases, a customer does not have the opportunity of physically interacting with the company. This leaves the customer with a visual first impression of the company, limited to its website, which means that a website is a communication medium and thus companies should approach website design as a communication design process (Van der Geest 2001:1). Rayport and Jaworski (2004:331) indicate that the success of a website is determined by its interface and the ease of the user's obtaining the required information. The interface is designed by applying various design parameters to the elements, such as the text and images of the website. When incorrect interface design parameters are applied to information they could confuse a user. However, when applied correctly, they could render the information clear and easy to understand.

The purpose of the present study is to carry out research regarding e-commerce website design parameters and discover if they affect website popularity. The study will consider e-commerce websites in three business sectors, namely, clothing, electronics and health.

The purpose of this chapter is to place the study in context. This chapter will discuss the problem statement, methodology used, value of the research, limitations of the research and the presentation of the dissertation.

1.2. Problem statement and research questions

E-commerce connects businesses and customers from around the world. However, inexperienced businesses might not possess the knowledge or resources for designing the optimum interface in order to communicate with their customers. It would therefore be beneficial to establish the best design for a successful e-commerce website. The purpose of this dissertation is to quantify the characteristics of successful e-commerce websites in terms of visual appearance. This problem can also be stated as the research question: "What are the characteristics of popular e-commerce websites?" This gives rise to a number of sub-questions which this study answers:

- What is e-commerce?
- How do consumers interact with the e-commerce website?
- How can the popularity of a website be measured?
- How are websites designed?
- How is an e-commerce website designed differently to another type of website?
- What are the characteristics or design parameters of websites?
- What are the design parameter values of highly popular websites?
- Are there relationships between the individual design parameters and the high, medium and low popularities?
- Are there relationships between the individual design parameters and different e-commerce sectors?
- How can one classify websites according to popularity or sectors?

1.3. Research methodology

The research was conducted by studying the available literature and adopting a quantitative approach, which was carried out by means of a quantitative survey.

The literature study presents the background to support the study and furnishes important definitions. It also answers certain research questions and provides a list of design parameters that were used in conducting the survey. The literature study also makes available the recommended values of the design parameters.

Page and Meyer (2003:17-19) state that the "quantitative approach places greater value upon information that can be numerically manipulated in a meaningful way" whereas "the qualitative approach can be conceptualized as a focus on words and feelings – the quality of an event or experience". The quantitative approach was selected because it allows one to conclude certain characteristics from a sample population. This allows the research to be carried out in an empirical manner.

The aim of the survey is to:

- Show the relationship between the individual design parameters and the three popularities;
- Indicate the relationship between the individual design parameters and the different e-commerce website sectors. The e-commerce design sectors studied were: clothing, consumer electronics, and health; and
- Furnish the values of the design parameters of highly popular websites.

The appropriate websites were collected from Alexa, a website that is a tool which ranks websites according to daily unique page views. Alexa is discussed in greater detail in section 2.4.

The strategy employed to complete the quantitative approach was:

- Determining the design parameters to be used to evaluate the webpages;
- Obtaining a list of the ten highest, medium, and lowest popular websites from Alexa for each sector. Table 1 illustrates the population groups of the categories and the popularities for each category;
- Gathering the values for each design parameter regarding each website;
- Performing statistical analysis on the data obtained; and
- Drawing conclusions from the results.

Table 1 - Representation of the sectors and popularities of the data gathered.

Clothing	**Consumer Electronics**	**Health**
High Popularity	High Popularity	High Popularity
Medium Popularity	Medium Popularity	Medium Popularity
Low Popularity	Low Popularity	Low Popularity

1.4. Value of the research

The research provides useful information to both experienced and inexperienced designers of e-commerce websites. The information on the values of design parameters can be employed when updating the design of an existing e-commerce website or when creating the initial design for a new one.

E-commerce allows global business to occur. Third world countries can conduct business with the more affluent. Through an appealing website design that makes communication easier, underprivileged communities can benefit.

The data collected could also be used for further research on website design.

1.5. Limitations of the study

The study will measure popularity through Alexa. Users download an Alexa toolbar that monitors which websites the user accesses and which pages she views. Other measures such as sales or company size will not be taken into account.

Owing to limited resources not all possible design parameters are considered. The study focuses on what the user can see, in other words, only the visual aspects of the website. Aspects such as the content and the effectiveness of the functionality, are not addressed. The product page is also only viewed and considered.

Furthermore, the websites' designs could easily be changed and updated and since technology advances rapidly, this means that the data collected for the current study could age quickly.

1.6. Presentation of the paper

This dissertation is divided into six chapters. This section describes the purpose of each chapter and the research questions it answers.

This chapter, Chapter 1, serves as the introduction and deals with the problem addressed by the research, the research design, the value of the research and the limitations.

Chapter 2 contains a literature study on the topic of e-commerce. It answers the sub-research questions of what is the nature of e-commerce, by reviewing its definition, indicating how consumers interact with an e-commerce website, and lastly, how the popularity of a website can be measured.

Chapter 3, also a literature study, considers website design in terms of the questions: How are websites designed? How is an e-commerce website designed differently to another type of website? What are the recommended design parameters values?

Chapter 4 furnishes an overview of the research design. It provides information on the websites selected, how the survey was carried out, the hypotheses and an explanation of the manner in which the data results were analysed.

Chapter 5 discusses the research findings of the survey and answers the questions:

- Are there relationships between the individual design parameters and the high, medium and low popularities?
- Are there relationships between the individual design parameters and the clothing, consumer electronics and health e-commerce website sectors?
- What are the design parameter values of highly popular websites?

Chapter 6 summarizes the results obtained from the previous chapter, links the literature study with the empirical results and makes recommendations for further research.

The remainder of the dissertation consists of a list of literature references and appendices.

1.7. Conclusion

The present chapter sets the background of this dissertation. The research question was stated as: “What are the characteristics of popular e-commerce websites?” Sub-research questions followed from the main question. The methodology explained how the research questions will be answered.

The rest of the chapter discussed how the research would be beneficial to website designers as well as the limitations of the research. The last section set out an overview of the research paper.

The next chapter initiates the literature study by examining e-commerce.

2. Chapter 2: E-commerce

2.1. Introduction

The purpose of this literature study is to assist in providing the background to and understanding the context of the problem as well as answering some research questions. This chapter focuses on e-commerce, the consumer and website statistics. The next chapter continues with a study of literature, with the focus falling on website design.

2.2. E-commerce

E-commerce conforms to the basic commercial principles which include buying and selling, except that the business conducted takes place electronically. E-commerce can be implemented through a number of technologies such as cellular phones making use of WAP (Wireless Application Protocol) and the internet. It allows academic and industrial organizations to offer services and products online.

E-commerce has grown tremendously owing to incredible advances in the internet in terms of speed, reliability, security and availability. The internet offers an array of uses, including the main function of providing information and allowing various forms of communication, such as e-mail. In terms of e-commerce, it serves as a mechanism for a company or institution to transmit information about itself and its services or products. The internet is, therefore, the driving force of e-commerce, and has altered the manner in which business is conducted.

Since business is carried out differently, the definition of e-commerce comprises the following aspects, which render it different from conventional business:

- The communication between organizations or individuals is in the form of digital information such as the logistics of an order or transmission of electronic services;
- The transactions are technologically based, meaning that customers no longer interface with a human with regards to payment for a product or service. The customer now only interfaces with a web browser;

- It has provided a virtual marketplace instead of a physical one where buyers and sellers can conduct business. The main interface between the seller and consumer is the screen; hence, every pixel on a screen is valuable; and
- The e-commerce relationship is no longer limited to only the buyer and seller. It allows for inter-organizational activities as well (Rayport and Jaworski (2004:3)).

E-commerce is also able to communicate between different entities; this allows for various relationships:

- Business-to-business (B2B), which is e-commerce between two organizations;
- Business-to-consumer (B2C), that is business between an organization and the general public, which forms the focus of the present study;
- Peer-to-peer (P2P), which is an exchange of e-commerce between and among consumers; and
- Consumer-to-business (C2B), a type of e-commerce driven by the general public to organizations (Rayport and Jaworski (2004:4-5).

E-commerce relies on technology and businesses need to be able to adapt if they want to conduct business through e-commerce. Dalyleish (2000:93-101) suggests “eleven best-practice fundamentals” for businesses to consider when wanting to use e-commerce. The first fundamental is to be innovative. Innovation allows the business to differentiate itself from its competitor. Keeping up to date with technological advancements also allows improvements in executing business and communicating with the customer. This leads to the next fundamental of being an “e-citizen” and participating in online communities within and across industries, which provides a business with access to customers and allows one to see what is happening in e-commerce and industry. The third best practice is to “create value early”; value helps a customer decide to conduct business with an e-commerce site. The basic value that an online business should offer is to become customer effective and provide a benefit to the customer for using the web. The fourth fundamental is to clearly state what value the website creates. A customer visits a website for any number of reasons and they should know what the website can and cannot deliver.

The next fundamental concerns the business and marketing strategy integrating the e-commerce strategy. This is especially important if the business is not solely online, because customers do not want to receive conflicting information from the virtual and physical components of the business. The business must also integrate itself with its customers and needs to give them access to: information about its products and services, a way to resolve their problems, contacts with relevant people, transactional processes and the process of being involved in improving the website by, for example, giving feedback on products.

The sixth fundamental involves balancing the physical with the virtual aspects. The business should not place the customer in a forced position, but allow a choice between one method or the other. This can be done by allowing the customer a choice of methods for payment. The next best practice is to understand who the key audience is and determine their competence as regards online transactions, so that the business can cater for their specific needs. This leads to the eighth best practice of creating a useful experience for the customer. By creating an e-commerce website the business should ensure that the content is relevant to their customers: it must be convenient, offer useful information and provide functionality to make transactions.

The ninth fundamental allows for the business to operate in real time. The internet enables a company and their customers to be synchronized in terms of time. The attraction of this lies in the ability for customers anywhere in the world to carry out transactions at any time.

The tenth best practice fundamental is that a business should make sure that it can match its virtual capabilities with its physical capabilities. A company should only offer services that it can achieve.

The last best practice is to use technology as an enabler. An organization can employ technology to its advantage so as to enable customers' direct and convenient access to the business anytime and anywhere.
These "best practice fundamentals" indicate that e-commerce is different from the traditional, physical business, mainly because of technology.

Many new technologies have been developed for e-commerce. Maamer et al. (2001:35-38) discuss software agents and strategies that could be developed to facilitate negotiations that could benefit both customers and businesses that supply services. The most frequent method of connecting customers and businesses is through an intermediate layer, termed a broker. Brokers match customer requests with business advertisements. However, because of drawbacks, such as no support for negotiations and issues of security, a meeting infrastructure with a supervisor has been suggested. This is merely an indication of the exciting and important manner in which the e-commerce infrastructure has evolved and become much more advanced. It also indicates the emphasis placed on communication with the customer.

Rayport and Jaworski (2004:9-10) describe the importance of the customer and point out that the two factors of consumer behaviour and the customization and interactivity of online business have changed in importance since the rise of the internet .

2.3. Consumers in e-commerce

E-commerce has placed a greater focus on the consumer since the most important factor when conducting business is to satisfy the customer's needs. Well developed e-commerce websites offer an array of information on products and services. They allow customers to access any information any time and from anywhere. The most important features of an e-commerce experience for customers are security, information quality, and information quantity (Lightner, 2003:167). The feeling of security is engendered by trust and familiarity, while the lack thereof forms a great barrier preventing new customers from shopping online (Egger, 2000:101). Fock and Koh (2006:196-200) define trust as a "customer's willingness to rely confidently on the exchange partner and the partner's

actions in terms of the partner's on-line environment". Egger (2000:101:102) describes a model of trust for electronic commerce which possesses an interface component with regards to familiarity. From this information one can see that customers prefer, or are more favourable towards, websites that are consistent in design. This consistency is dependent on the willingness of the customers to trust the security of the website.

Once a customer develops trust in a website he/she does not only go to the website to make purchases, but is able to interact with the site in the following ways (Dalyleish 2000:14-18):

- Customers can evaluate competing businesses and products. Customers can change the site they are viewing with the click of a button. It is easy to obtain information on products from numerous vendors. Kim and Lee (2002: 185-199) have created an assessment model of the Internet business system. The information phase was found to be the most influential for the users. This phase consists of presentation, interaction, structure and content. Although the phase encompasses the presentation, the content of the information was shown to possess great importance. This empowers consumers tremendously, even more since they can connect with online communities. It is much easier to find people who have already purchased the product and then establish their experience with the vendor as well as the product.
- They can select products and transact with e-service providers. An e-commerce site has to be able to make transactions. The actual processes of browsing and transacting should be viewed as separate tasks (Lightner 2003:167) because customers interact with the site differently in each instance. This means that browsing for information is considered a different task to the actual buying process.
- Customers are also able to obtain help from the supplier. An opportunity exists to give customers better quality service by providing guidance about the product, whether in the form of online instructions or contact details for further assistance.
- They provide feedback with regards to their experience and the product or service they purchased. As mentioned above, online communities empower customers

because it is easier for them to be heard publicly, which pushes vendors to offer a better quality of service in order to remain competitive, while also helping vendors to improve because they are able to identify any problems.

- They can stay tuned in as e-customers: Customers can "shop" without leaving their homes. It is easier to see if there are any special offers or new developments on the site.

Customers are empowered due to the abundance of information available on the internet since they can more easily make the right decisions with respect to product cost, specifications and quality. Since so many company websites are available for customer viewing, it becomes more and more important for the website to be user friendly. This means that companies are no longer limited to competing against each other, but also for the customers' time and interest (Nielsen 2000:10-11).

Various mechanisms and tools have been produced to monitor customers and how they spend their time on the website. The statistics gathered are used by the businesses as well in academic research. The next section discusses how website statistics are gathered, with the focus falling on Alexa.

2.4. Website statistics

Website popularity can be quantified by the amount of data users have downloaded from a specific website. This information will be very useful for the present research in determining the highest, middle and least popular websites for the three sectors selected. As mentioned in the introduction, it has been decided to make use of Alexa to determine this information.

Alexa is a web navigation tool that calculates traffic ratings based on the web usage of millions of Alexa Toolbar users. This means that the popularity of a website is based on hits from actual users and not from web crawlers or search engines as the criteria are based on a toolbar add-on for the user's web browser. The traffic rating is calculated on

three months of accumulated historical traffic data. This information is, however, continually kept up-to-date.

Alexa's popularity rating is based on a combination measure of the number of users that visit the website on a given day (known as reach) and the number of URL (Uniform Request Locator) address requests by a user (known as page views). In the event of a user requesting the same page twice in a single day, the page views are counted as a single page view. This means that the results from Alexa are based on the amount of unique pages viewed by users.

Alexa has been employed in a number of academic studies. Sullivan and Matson (2000:139-144) have used Alexa to ascertain the 50 most popular websites and determine how accessible their information is to people with disabilities. The 50 websites were rated in degrees of accessibility according to Web Content Accessibility Guidelines (WCAG). Palmer et al. (2000:151-167) researched how various businesses utilised Trusted Third Parties (TTPs) and privacy statements on their websites. Alexa was employed to determine the length of time the website has existed, by obtaining the date on which the domain was registered. The age of the website and how TTP and privacy statements were embedded were examined in order to determine whether any relationships between the two exist.

2.5. Conclusion

The advancement of technology, especially the internet, has allowed e-commerce to expand globally. It has changed the way business is carried out, and allows the consumer to interact with the business in various ways. However, this interaction occurs on a computer screen. This interface is the major method with which the business communicates with the user, and vice versa, the customer must navigate the website and find what he wants on his own. The next chapter focuses on the design of e-commerce web pages.

3. Chapter 3: Website Design

3.1. Introduction

This chapter furnishes a background to website design, discusses website design in e-commerce, reviews the design, popularity, and finally the design parameters used in the study.

That which a user sees on a screen when looking at a website is information. The user interacts with this information differently from that of traditional media. The first section considers how the interaction differs, how this information is represented on the screen, and the design components of a page are. The next section examines interface design in e-commerce. The last section discusses the design parameters employed in the current research.

3.2. Website interface design

Website information can be displayed in many formats such as text, images and sound, although the same information can be represented in traditional media such as print. On web pages the design is different because of hyperlinks. Users can move from one web page to another, creating their own context that is relevant to them (Lynch and Horton 1999:11-13). This information must also be adaptable and customizable to the user's own preferences and needs (Dalyleish 2000:17).

From this it is evident that web pages need to contain sufficient information and be self explanatory. The basic elements of a site should include the name of the author/company, what the information is about (i.e. a title), when the web page was last updated, and from where the information originates (Lynch and Horton 1999:13).

The main principle of website design is to meet the users' needs. The design process usually starts with creative decisions with regards to the look and feel. The processes involved can include choosing a metaphor, which entails associating a concept with the

design. Other creative decisions include the style and tone (Van der Geest 2001:65-66). Although the design is reliant on creativity, the web pages must be consistent.

Consistency allows users to adapt and learn the site quickly (Van Der Gesst 2001:56). Ideally a site of web pages should consist of a design comprising components that serve the same function but contain different information (Lynch and Horton 1999:16, 56). Figure 1 illustrates an example of this by defining the method for constructing a web page. This is typically created from four components. Component A serves as a header, which should contain a site logo as well as hyperlinks to major navigational points. This component will always remain the same, no matter where the user has clicked to go to another page within the site. Components B and C should alter according to where the user has relocated. Component B represents a sub-menu that changes when a different topic is selected; hence it does not always stay the same. Component C represents the information about a web page; this component alters every time a user clicks on a hyperlink. Component D represents the footer and contains essential data about the site such as the date of the last update and copyright information. This component also remains the same.

E-commerce sites should also be consistent, and the same design principles apply to these. However, aspects, such as trust, affect the design for the purposes of e-commerce differently. The next section considers how web pages are designed in this respect.

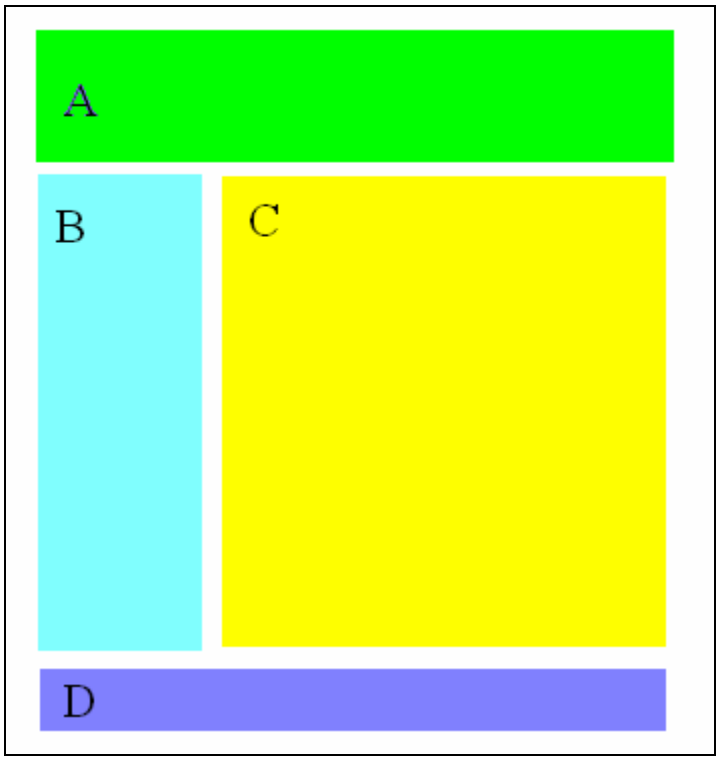

Figure 1: Modular design components. Adapted from Van Der Geest (2001:54-58, 62-66).

3.3. Interface design for e-commerce

The e-commerce company presents itself and communicates to the customer through its interface. Rayport and Jaworski (2004:151-153) deivse a framework of 7Cs for building an e-commerce customer interface. This is described in Table 2:

Table 2 - 7Cs framework for customer interface. Adapted from Rayport and Jaworski

Name	**Description**
Context	The design and layout of a site, including aesthetic and functional look and feel.
Commerce	The capability of selling on the Internet.
Content	How information is presented with text, images and sound.
Communication	How the site exchanges information with its users.
Community	How the users of the site are able to communicate with each other.
Customization	A site's ability to customize itself for each user.
Connection	How the website connects to other websites.

The interface design must incorporate all the 7Cs into the website. However, the present researcher will focus on the "Content" and "Context" components of the framework.

Egger (1999) reaffirms the concept that e-commerce websites should be appealing, revealing the business's organizational culture and identity. Ivory and Hearst (2002a:56) remark that poorly designed e-commerce websites might lead to a loss in productivity and income. It is said that a high quality website design can only be created by ensuring consistency throughout the website. These authors add that in practice this is different owing to a huge gap between theory and implementation. It is also suggested that various guidelines given in literature for effective e-commerce web design can conflict with each other. The guidelines also offer the same advice for all types of websites. The present author will consider this issue by comparing the design parameters between the three sectors chosen. In addition, a company might have to ensure that the developers of the website are familiar with the guidelines, practices and technologies currently in use.

However, the best interface design is not the only factor that results in success. Maldonado and Resnick (2002:1318-1319) proved that the navigation design used by some of the largest online retailers does not give the best performance. As discussed in previous sections, consistency between a company's online and offline presence is very important for customers, especially if the company conducts a great deal of business offline. If the business has a solid offline presence customers could already possess a sense of trust and be willing to conduct business online. Steinbruck et al. (2002) show that the use of a photograph and label of a sales agent reinforced trustworthiness. Stephens (2004) researched e-commerce design elements and how they relate to trust within in the small hotel industry, by studying the choices participants made when visiting the website. The study showed that the website elements of page layout, styling (which included formatting, structure, graphics, colour and fonts), navigation, and content are related to trust.

Ivory and Hearst (2002a:56-57) describe the broad set of activities required when addressing the complex interface elements of a webpage. This provides a means for

determining how to break down the measuring of a website in a logical quantitative manner. These components are described as follows:

- The information design component can allow one to identify website content and group the information into various categories which can be represented as logical links (hyperlinks) in the website structure.
- The navigation design component allows one to determine the logical layout of the navigation bar and how the hyperlinks relate to the information design component.
- The graphic design component enables one to analyze a website purely in terms of its aesthetic look.
- The experience design mechanism allows one to evaluate a website in terms of total website experience such as download time, adverts, popup windows and web browser compatibility.

Nyongesa et al. (2003) demonstrate how the use of technology can influence design. One-on-one relationships can be created between the client and company, through adaptive user interfaces which utilise fuzzy logic. The latter is an artificial intelligence making tool; it allows for an inferential process by obtaining a great deal of information about each user to allow for interface personalization and adaptation for the purpose of online purchasing. The two methods of system design are “use case” and domain modelling. The use case describes the various options that are available to the user while the domain model describes the business process and activities that can be selected by the user. This paper will only consider the use case design and not the actual business process.

Davis (1989) and Lederer et al. (1999) describe two opinions that a user will gather from a website after using it and one output or reasoning that the user will determine. This model is used by Davis (1989) to explain the usage of information technology. The two inputs are described as follows:

- Perceived usefulness is the way a user will determine how functional a system is and how it will improve their work performance by reducing the time it takes to finish tasks; and
- Perceived ease of use is the way a user will determine how much effort is required in using or understanding a particular system.

The output of this determines the attitude of the user towards the system. Lederer et al. (1999) determined that the main dependent variable is the actual usage of the system. Hence the usefulness of a system is more important than the effort required to use the system (Liu et al. 2003). This understanding will be employed in the present research in that the existing functionality of a website will be checked and not the user's interaction with the functionality.

The importance of the website interface design for e-commerce has been discussed. The next section discusses research carried out with regards to design parameters and the websites.

3.4. How design affects popularity

Certain studies illustrating a relationship between website design parameters and website popularity or rating have been conducted. Ivory and Hearst (2002b) describe the statistical analysis of 157 measures of websites. This information will provide the basis for the current research in terms of the website design parameters and statistical analysis. This research will also, however, include the low rated websites as well.

The web page and site measures used by Ivory and Hearst (2002b) are described in terms of the following list:

1. Text elements;
2. Link elements;
3. Graphic elements;
4. Text formatting;
5. Link formatting;

6. Graphic formatting;
7. Page formatting;
8. Page performance; and
9. Site architecture.

This dissertation discusses text elements, link elements, graphic elements, text formatting, link formatting, graphic formatting and page performance. These web design elements and formatting categories will be used in analyzing the e-commerce websites.

Ivory and Hearst (2002b) classified their websites as good (top 33% of sites), average (middle 34% of sites) and poor (bottom 33% of sites), based on the website ratings. It was assumed that the ratings applied to all individual pages within each website. They also made use of six categories namely, community, education, finance, health, living and services. A total of 5 364 web pages from 639 websites were used for their study.

Ivory and Hearst (2002b) studied the websites in terms of a page level analysis and a site level analysis where the page level analysis only took into account the site measures of the pages, while the site level analysis considered the website architecture. Since this paper will only undertake page level analysis, only this component will be discussed.

The page level analysis made use of the ANOVA statistical analysis to compare webpage measures in order to determine whether they are significantly different from other categories. Correlation coefficients were also calculated between pairs of predictor measures. These correlations will prove to be useful for this study since one can compare the results obtained from this dissertation as well as those of Ivory and Hearst (2002b). The results obtained are:

- A minimum size font of 9 points or less indicates the page is good;
- An average and a poor page make excessive use of colour whereas a good page makes use of fewer colours;
- Italicized words are rarely used in good pages, whereas poor to average pages make more use of this within the body of the text;

- Good pages tend to contain more unseen errors than bad pages. These errors appear when websites do not conform to web standards. A correlation was found between the number of errors and number of interactive objects such as images. This indicates that good pages do not conform to standards, which generates the errors;
- Adverts are more commonly found in poor websites rather than good websites;
- Poor pages contain fewer links than average pages, while good pages have the highest number of links. Good pages also make more use of link clustering; and
- Good pages contain more interactive links than poor or average pages.

A study of describing the subgroups of good pages was conducted as well. It was identified that there were three subgroups of good pages. These were pages containing measures of amount of text, table count and text positioning. Other studies that were conducted include analysis within content categories and analysis within page types.

The next section incorporates the measures used by Ivory and Hearst with other design literature in order to obtain and explain the design parameters used in this study.

3.5. Design parameters

Web design parameters are elements and formatting that a user can see on a web page. Hence, functional design is included in this research only with regards to its visual effectiveness. It is assumed that the number of hits a website receives, especially for highly rated ones, indicates that the functionality operates correctly. Website design parameters (or variables) can be divided into the following categories (Ivory and Hearst, 2002b) as depicted in table 3. These categories will provide the basis for measuring the website statistics in this research paper.

3.5.1. Text elements and formatting

In this category the text elements and formatting, also known as typography, will be discussed (Lynch and Horton, 1999:77-91). The major difference between text on screen and on print media (hard copies) is that the text on screen appears at a much lower

resolution, which makes it more difficult to read. The types of text that will be analysed are the three types of headings: heading 1, the main heading, heading 2, a sub heading, and heading 3, a sub-sub heading. Paragraph text will also be analysed, that is, the rest of the text holding the content under the headings. For the headings and paragraph text, the type of font used, alignment and total number of words will be analysed. Text emphasis and amount of words per line will comprise the extra formatting discussed for paragraph text. Table 3 shows the list of design parameters selected for the current study.

The choice of fonts (also known as typefaces) is important because it influences readability. A common font like Times New Roman is said to be one of the best fonts for text on paper; however, it is not easily readable on screen. Fonts such as Verdana and Georgia are best for screen readability, but not for paper.

Alignment defines margins, which gives the user visual relief as well as allowing the content to fit in with the rest of the page and the browser. The possible alignments are justified headings and text, centred and right-justified headings and text, and left justified headings and text.

Emphasising text produces visual contrast which renders it easier for users to skim through the text. The following standard methods are applied for text emphasis:

- Italics. Italics possesses a different shape to the rest of the body of text. It is recommended that italics be used for conventions such as book titles;
- Bold. Bold text contrasts in colour and is mainly good for headings;
- Underlined. Since it is a web standard to have hyperlinks underlined, it would not be a good idea to use underlining because it could confuse the user;
- Coloured text. It should be noted that standard hyperlink colours (blue and purple) should not be used because this could also confuse the user;
- Capital letters. Capital letters are said to be the least effective way to emphasize text since these are difficult to read; and
- Spacing and indentation. This is said to be one of the best and most subtle ways to emphasise text.

The text line length must not be too long because then it becomes difficult to read. In print, text is usually confined to columns of about 7.5 centimetres wide. To have a similar effect, if the font size is set to about 12 points, the number of words in a sentence should be limited to approximately 50 characters, which amounts to about nine or 10 words,.

3.5.2. Link elements and formatting

Hyperlinks to other webpages make websites different from other information sources, hence, ease of navigation on a page is vital. Navigation needs to answer three questions: Where am I? Where have I been? Where am I going? (Nielsen, 2000:188-195).

Nielsen (2000:53) describes the following three kinds of links:

- Structural navigation links. These links outline the structure of the information of the site;
- Associative links. These links go to pages that contain more information about the content of the page (these are usually underlined links within the text); and
- “See also” embedded links. These help the user if the page they are viewing is not the correct one.

Although the research does not take colour into account, the four colours that can be used to display a link will be mentioned. The standard colour of an unvisited link is blue. When the user “hovers” his/her pointer over the link, the link changes colour, in which case there is no standard colour. However, some sites use this feature especially when their standard colour is not blue and/or their link is not underlined. An active link displays a standard colour of purple or red. An active link refers to the link to the page that the user is currently viewing. In standard terms the link would turn purple or red because the user has clicked on it.

3.5.3. Graphic formatting

Graphics exert a large effect on download speed; however, they can be effectively used to catch the user’s attention (Lynch and Horton, 1999: 42-44).

The most widely used image formats are GIF, JPEG and PNG. However, transparent PNG is not supported by all broswers.

GIF images are recommended for pictures that are not photographic in nature, while JPEG images are best suited for photographic images. The PNG image format was designed for the internet, but its transparency feature is not supported by all web browsers (Dabbs and Campbell, 2004:203).

Animated images refers to those images that move or flash. Any animation should be avoided as it hampers information processing.

3.5.4. Page formatting

This section examines page characteristics that relate to performance by looking at page size as well as frame use.

Any page consists of both width and length. Nielsen (2000:174-175) recommends that a page be able to fit into any screen resolution by using “liquid design”. This allows the design of the page width to be adaptable to any resolution.

Lynch and Horton (1999) list the following components of page length:

- Relation between page and screen size. Although technologies are advancing and high resolution screens are available, some users still employ a low screen resolution. A low screen resolution shows less, which could mean more scrolling than on a screen set to a high resolution;
- Content of the document and how it can be logically segmented;
- Whether the reader is expected to browse the content online or to print or download the information. A computer monitor screen is wider than the standard A4 page, but if a page is meant to be printed the content should easily fit on a page; and

- The bandwidth available to the user. If the site is accessed by users with low bandwidth it will take more time to download the page. It would be better to divide the page into multiple pages.

Some web designs use frames. Frames should be avoided because of bad or no browser implementation.

3.5.5. Functionality

A site's functionality allows the customer to interact with the site. Functionality should also fulfil the purpose of the site. The research conducted only considered the basic and common functionalities of an e-commerce site.

The search function allows the user to quickly locate what she is looking for, which is a useful tool for sites containing many products. It can be applied to a variety of situations such as large sites with much information, and smaller sites with long documents (Lynch and Horton, 1999:48).

The cart function allows customers to "store" all items selected for purchase; it also allows easy access for viewing and editing (Rohn, 1998:110-115).

E-commerce sites also show alternative products when a user views something specific. Dalyleish (2000:20) lists "making a comparison" as one of seventeen customer directives; providing product "suggestions" is one way of doing so.

The "Recently viewed item" functionality is an example of how a site can adapt to an individual user. By displaying a history of the previously viewed products, together with the "suggestions" functionality, a user can enjoy a unique experience.

Table 3 summarizes the design parameters in this dissertation. Each column lists a particular category of such parameters. These parameters are utilised to conduct the survey for the purpose of data collection which leads to data analysis.

Table 3 - Design Parameters

Text elements and formatting	**Link elements and formatting**	**Graphic formatting**	**Page formatting**	**Functionality**
Heading 1/2/3/paragraph font size	Amount of text links	Number of Graphics	Page length	Search number
Heading 1/2/3/paragraph font	Amount of graphic links	Percentage of graphics on page area	Page width	Customer comments
Paragraph emphasis: • Underlined • Italics • Bold • Coloured text • Capital letters • Spacing • none	Amount of structural links	Amount of static	Background colour	Cart number
Heading 1/2/3/paragraph alignment:	Amount of associative links	Amount of animation	Frames	Suggestion number
Heading 2 alignment:	Amount of ‘See also’ links	Amount of links	Adaptable to screen resolution	Recently viewed number
Paragraph line length	Links underlined	Format: • JPEG • GIF • BMP • PNG		

Text elements and formatting	Link elements and formatting	Graphic formatting	Page formatting	Functionality
		• TIFF • Other		
Number of heading 1 words		Minimum width		
Number of heading 2 words		Minimum height		
Number of heading 3 words		Maximum width		
Number of paragraph words		Maximum height		

3.6. Conclusion

Chapter three has explained that website design differs from other information design for different media, such as paper. E-commerce website design must offer a high degree of functionality in order to facilitate transactions, and other utilities. Trust is also indicated as an issue. Therefore, an interface for an e-commerce site must display a similar look and feel to other trustworthy e-commerce sites.

This chapter also discussed the design parameters utilised in conducting the quantitative research. These are divided into the following categories: text elements and formatting, link elements and formatting, graphic formatting, page formatting, and functionality.

The following chapter, chapter four, describes the methodology employed to conduct the quantitative research while chapter five furnishes the results and an analysis of the results; chapter six will contain the conclusions drawn from the study.

4. Chapter 4: Research Methodology

4.1. Introduction

The purpose of this chapter is to furnish reasons for applying the selected methods to the current undertaking. This chapter begins by revisiting the problem statement so as to provide an overview of the manner in which the research questions will be answered. The next section describes how the websites were identified for the research and the techniques employed for collecting the data. The last section describes the statistical methods utilised in the analysis of the data. This section can be referred to by other researchers in order to repeat the statistical tests.

4.2. Solution to problem statement

A number of sub-questions have been derived from the problem statement. These are answered statistically by means of quantitative research methods in this dissertation. In order to answer the sub-questions in this manner, the data that was collected through the survey was divided into two categories of variables.

The first type of variable contains interval data which is numerical and continuous in nature. These are typically website design parameter counts and measurements. The statistical analysis used for this type of data is termed descriptive statistics. This allows one to measure the minimum, maximum, mean and standard deviation of the various design parameters within the combinations of popularity and sector. A Kruskal-Wallis test was applied in order to determine if the means differ significantly between the combinations of popularity and sector.

Another type of statistical analysis utilised for the interval data collected is Chi-squared Automatic Interaction Detector (CHAID). This provides the solution to the problem of classifying and predicting websites according to sector or popularity.

The second type of variable contains nominal data which is categorical in that data represented is discrete but not ranked. Frequency tables were used per popularity, sector and the combination of the two in order to determine the count of observations. Cross-tabulations were used as a statistical analysis for this type of data so as to measure the distribution of the nominal design parameters with respect to the combinations of popularity and sector. A Chi-square test was conducted to determine whether the differences in the distribution were significant.

4.3. Data collection

This section describes the method of determining which websites were to be downloaded for statistical analysis. These websites were categorized in terms of popularity and sector.

Once the websites had been archived, various tools and techniques were applied to break down the websites in such a manner that one could extract the applicable values of the design parameters.

4.3.1. Obtaining the websites

In the literature study of this dissertation the chapter on e-commerce (chapter 2) describes how website statistics are gathered by means of a system called Alexa (see section 2.3). Alexa contains a directory of all websites that have been registered with the system and these are categorized according to subjects. This directory is displayed in figure 2 and illustrates subjects such as arts, news and shopping.

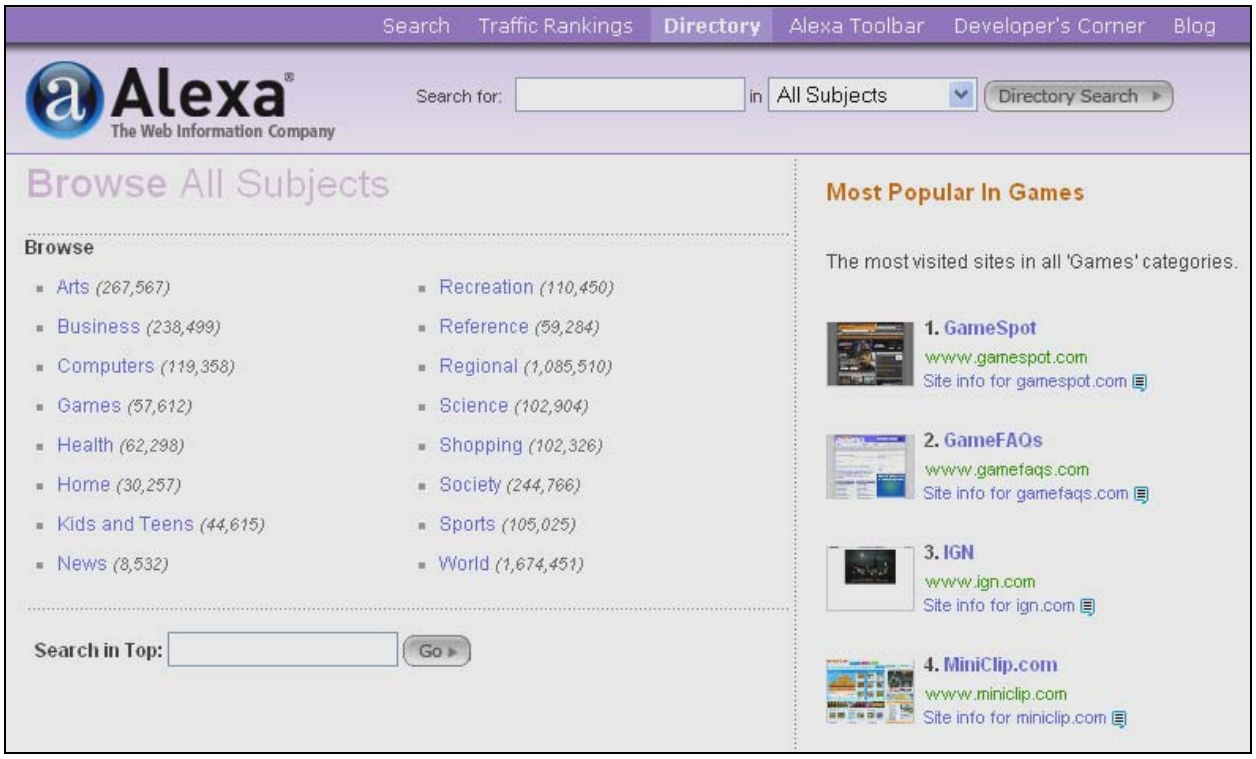

Figure 2 - Screenshot of the Alexa directory

In order to identify the e-commerce websites, the shopping subject must be selected. This displays a list of subcategories within the shopping subset, such as consumer electronics, health and clothing. A screenshot of these shopping subcategories can be seen in figure 3.

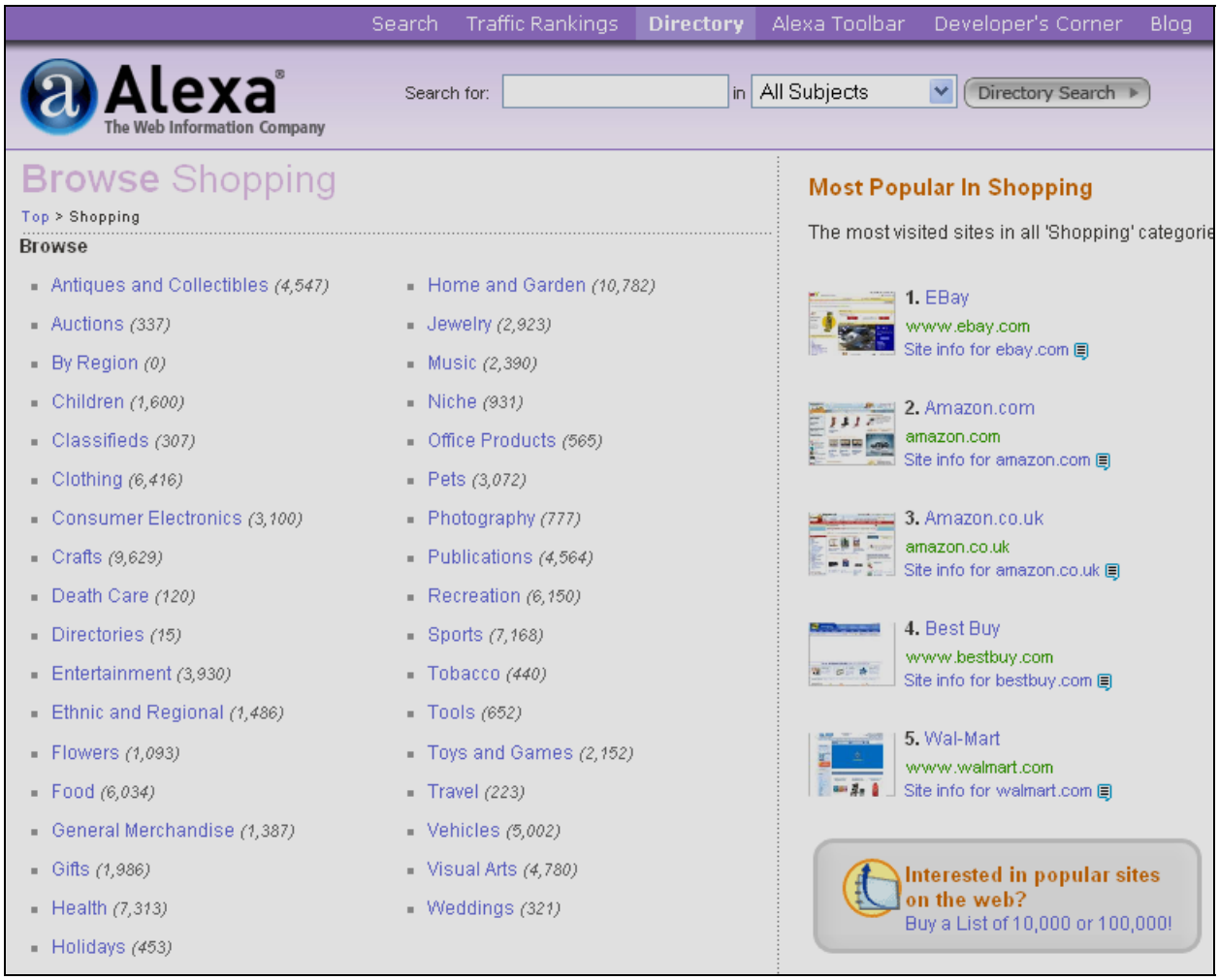

Figure 3- Screenshot of the shopping subject selected within Alexa.

The three e-commerce sectors of consumer electronics, clothing and health, were selected because of the large number of websites associated with them and since the nature of the subjects is more specific than other categories such as crafts, home and garden.

4.3.2. Method followed for selecting the websites

The sampling technique used in selecting the websites is stratified random sampling. This technique divides the population into strata (groups) according to a stratification variable. In this case the stratum is popularity and Alexa allows the websites to be sorted according to popularity. A list of all the websites is available in Appendix A.

The first 10 websites within the sorted list were selected as the websites associated with a high popularity. The next 10 websites between 100 and including 110 are associated with a medium popularity. The next 10 websites between 200 and including 210 are associated with a low popularity.

The reason for selecting ranges that are below 300 is to ensure that the websites record a sufficient number of hits and possess a sufficiently long lifetime. This makes it more difficult for the websites that were chosen to change in rank over a period, thereby reducing the risk of the master data becoming outdated. It also ensures that the websites are reputable and of an acceptable quality for statistical analysis.

If the selection included websites that did not contain the functionality to conduct e-commerce (of which only 2 were discovered), these were disregarded and replaced by the following website in rank. A random webpage featuring a product for sale on the website was selected.

Figure 3 illustrates this process in a graphical format. This list includes a total of 90 websites. These can be subdivided into 30 websites of high popularity, 30 of medium popularity and 30 of low popularity. Alternatively the overall 90 websites can be subdivided into each sector, namely 30 clothing websites, 30 consumer electronics websites and 30 health websites. Each sector can be further subdivided into 10 websites of high popularity, 10 of medium popularity and 10 of low popularity. This distribution is illustrated in table 4.

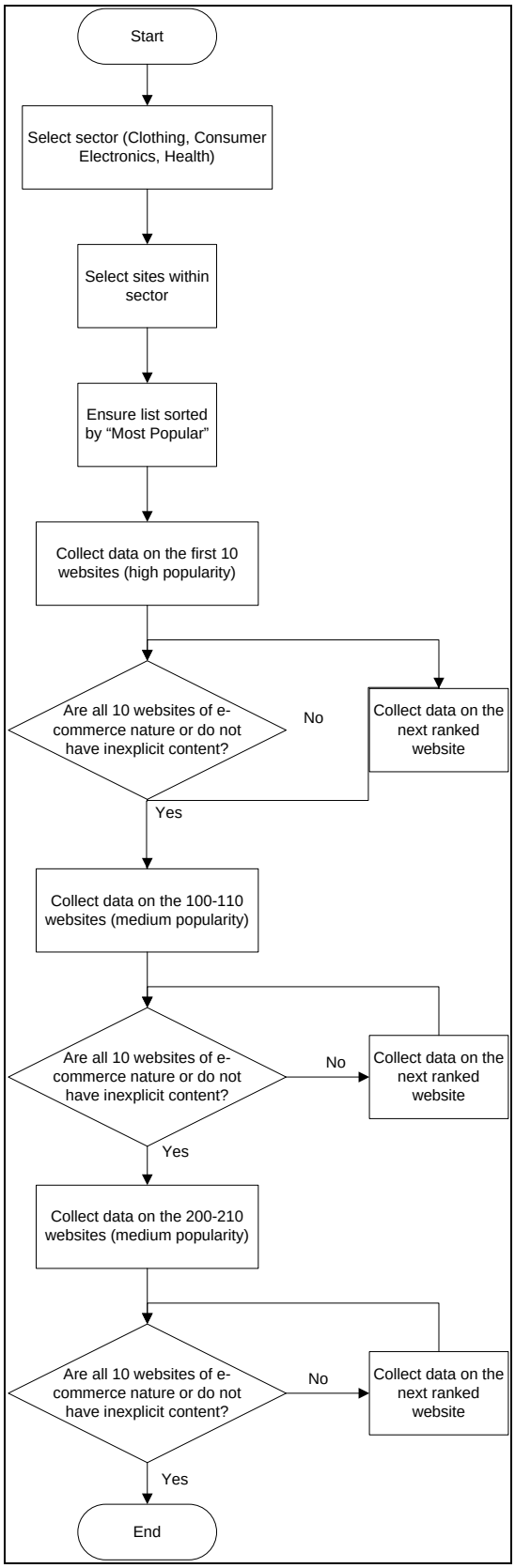

Figure 4 - Flow diagram demonstrating the process of selecting the websites.

Table 4 - Website popularity and sector distribution.

Sector / Popularity	Clothing	Consumer Electronics	Health	Total
High	10	10	10	30
Medium	10	10	10	30
Low	10	10	10	30
Total	**30**	**30**	**30**	**90**

4.3.3. Obtaining the design parameter values from the websites

This section discusses the tools and techniques employed to obtain the values for each individual website. The techniques utilised to obtain the values for the design parameters are shown in table 5. These parameters are grouped according to the data collection technique employed. A description of them can be found in section 3.5.

All the websites were viewed live. A random product webpage was selected, from which the data was collected. The browser Firefox version 2.0.0.1.1, was used because it allows extra add-ons to be installed, which aided accurate and fast data collection. The add-on used was Web Developer, which consists of a menu with various tools, and is aimed at and mostly used by web developers. It allows for the functionality of viewing websites with the Cascading Style Sheet (CSS), code that is processed to display the webpage syntax highlighted source code, image information, and includes a ruler tool for measuring elements on the website in pixels. Other methods were visual inspections and manual counting; for large amounts of text the text was copied into Microsoft Word and the “word count” tool was used.

Table 5 - Data collection techniques used

Technique/Method	Design Parameters
CSS	Heading 1 typeface, Heading 2 typeface, Heading 3 typeface, Paragraph typeface,

	Heading 1 weight, Heading 2 weight, Heading 3 weight, Heading 1 Alignment, Heading 2 Alignment, Heading 3 Alignment, Paragraph Alignment, Heading 1 font size, Heading 2 font size, Heading 3 font size, Paragraph font size
Visual	Underlined, Italics, Bold, Coloured Text, Capital Letters, Spacing, No emphasis, Search, Customer Comments Cart, Suggestion, Recently viewed, Links underlined, Background colour
Manual counting	Amount of Heading 1 words, Amount of Heading 2 words, Amount of Heading 3 words, Amount of Paragraph words, Amount of text links, Amount of Graphic links, Amount of Structural Links, Amount of Associative links, Amount of "See Also" Links, Paragraph line length, Amount of Static, Amount of Animated, Amount of Links
Image Information	JPEG, GIF, BMP, PNG, TIFF, Other, Minimum width, Minimum height, Maximum width, Maximum height, Percentage of Graphics on Page Area
Ruler	Page Length, Page width
Outline Frames	Frames
Changing Resolution	Adaptable to screen resolution

The data was captured into a Microsoft Excel spreadsheet, which can be found in Appendix 2.

4.4. Statistical methods

This section describes, in detail, the various statistical methods utilised in deriving the solution to the research problem.

Table 6 - Statistical tests used

Dependent Variable	Statistical Tests Used
Ordinal – Categorical	Frequency Tables, Cross Tabulation, Chi-square Test of Association
Interval – Continuous Numerical	Descriptive Statistics (minimum, maximum, mean and standard deviation), Kruskal-Wallis Test

4.4.1. Descriptive statistics

Descriptive statistics allows one to compute the minimum, maximum, mean and standard deviation of numerical data. These statistics were computed for all combinations of popularity and sectors.

Mean and standard deviation can be represented mathematically as follows (Montgomery et al. (2001:20-21)).

The mean of a sample containing n observations where the observations are defined as $x_1, x_2, \ldots, x_n$, has the following sample mean:

$$\bar{x} = \frac{x_1 + x_2 + \ldots + x_n}{n}$$

$$= \frac{\sum_{i=1}^{n} x_i}{n}$$

The variance of a sample containing n observations where the observations are defined as $x_1, x_2, \ldots, x_n$, has the following definition:

$$s^2 = \frac{\sum_{i=1}^{n} (x_i - \overline{x})^2}{n-1}$$

The positive square root of the sample variance, s, is the sample standard deviation.

4.4.2. Kruskal-Wallis test

The Kruskal-Wallis test is a non-parametric method of conducting a one-way analysis of variance by ranks (Page and Meyer, 2003:175-176). It tests for equality of population medians among groups. This means that the null hypothesis and hypothesis are:

H_0: All population medians are equal.

H_1: Population medians are not equal.

Non-parametric methods do not depend on the assumption that the data is taken from a probability distribution; hence they are referred to as distribution free methods.

4.4.3. Frequency tables

A list of values that a variable takes and the frequencies in a sample represents a frequency distribution (Page and Meyer, 2003:149-153). The values, if numerical, are ordered in size. This technique is typically applied to discrete data. By tallying the number of equal values, one can obtain a frequency table. This can be particularly useful when the values have a meaning in a code book. For example, in a list of font types that the websites used, each font has a corresponding code, that is, code 1 would mean font type Arial, 2 means font type Verdana and 3 would be ‘Other Fonts’. If 12 out of 30 websites in a certain sector and or category contain an Arial type font, then the frequency of the code is 12, and the relative frequency is 0.4 or 40%.

4.4.4. Cross tabulation

Cross tabulations are a combination of at least two frequency tables in the form of a matrix (The POWERMUTT Project, 2008). Each cell of the matrix represents the frequency of observation of a specific combination of categories of the two variables. Hence, the relationship between the different variables and categories is easily noted. Cross tabulation can only be applied to nominal or ordinal variables or where the number of different values is small. Continuous data can be recoded into appropriate ranges to be cross tabulated.

Cross tabulations are utilized because they are easy to comprehend. The data is treated as if it were categorical; hence it can be used on all types of data. The table can be more revealing than a single statistic. The problem of empty or sparse cells must usually be eliminated by pooling categories. Cross tabulations are straightforward to carry out.

4.4.5. Chi square test

The chi-square test is used as a statistical hypothesis test. There are two types of chi-square tests; namely the goodness-of-fit test and the test of association (Page and Meyer, 2003:169-172). The goodness-of-fit test is used to establish whether a sample is statistically similar to the hypothesised distribution. This test is applied to discrete variables. The test of association establishes whether two categorical variables are independent, that is, the null hypothesis is true, or whether the two are associated, in which case the alternative hypothesis is true. Specifically, a chi-square test of association evaluates statistically significant differences between proportions for two or more groups in a data set.

The significance of the chi-square statistic is often given in terms of a p value (e.g., $p = 0.05$). It is an indication of the likelihood that the null hypothesis is true (0.05 = 5%). Hence, if the p value is less or equal to 0.05 the null hypothesis is rejected.

4.4.6. CHAID

CHAID is used to build decision trees through an algorithm; it is a method to explore the relationship between a number of independent variables (predicators) and a dependent variable (The Measurement Group, 2005). For a continuous dependent variable, regression-type problems, the algorithm works out F-tests to establish where the next division in the tree should be; for a dependant that is categorical in nature the Chi-square test is used (Statsoft, 1998). Both techniques are employed in this research to characterize low, medium and high frequency websites and the clothing, health and electronic sectors.

4.5. Hypotheses tests

Page and Meyer (2003:23-24) point out that a hypothesis defines the relations between all the parts of a theory by making a testable speculative statement. Hypothesis testing determines whether the patterns and relationship in the sample are likely to exist in the whole population.

In this dissertation the following hypothesis tests were conducted:
Hypothesis for ordinal (numerical) data for popularity levels:
H_0: The mean of the design parameter does not differ between popularity levels.
H_1: The mean of the design parameter does differ between popularity levels.

Hypothesis for ordinal (numerical) data for sector groups:
H_0: The mean of the design parameter does not differ between sector groups.
H_1: The mean of the design parameter does differ between sector groups.

Hypothesis for interval (categorical) for popularity levels:
H_0: There is no association between design parameters and popularity levels.
H_1: There is an association between design parameters and popularity levels.

Hypothesis for interval (categorical) for sector groups:
H_0: There is no association between design parameters and sector groups.

H_1: There is an association between design parameters and sector groups.

4.6. Conclusion

This chapter discussed the quantitative research methods employed to answer the research questions. The relationships and characteristics of the design parameters, sectors, and popularities were determined by employing a survey and statistics. The next chapter reports the research findings stemming from the data analysis.

5. Chapter 5: Results

5.1. Introduction

The data gathered during data collection stages as well as the findings that emerge from the data are presented in this chapter. The chapter begins a statistical description of the data which determines the preferred design parameters and the popularity of the websites selected in each of the three sectors. The relationships of the data parameters between popularity and sector are discussed by making use of various statistical methods depending on the type of variable tested.

5.2. Descriptive measures for highly popular websites

In this section, the researcher will describe the data in terms of descriptive measures and frequency tables for highly popular websites and the individual sectors. This section is divided into sub-sections for each category of the design parameters, namely, text elements and formatting, link elements and formatting, graphic formatting, page formatting and functionality. The descriptive measures, the minimum, maximum, mean and standard deviation, are applied to the numerical data (see results in Appendix B). The frequency tables are applied to the categorical data; (see tables in Appendix C). The next section deals with the relationships identified by means of statistical analysis.

5.2.1. Text elements and formatting

In this design parameter category the text elements and formatting will be discussed with regards to the most popular website design. The most popular choice of typeface was Arial for heading 1, heading 2, heading 3, and the paragraph text. It was noted that Verdana is the preferred typeface for the websites in the electronic category.

The preferred overall font size for heading 1 is 18px, with marginal differences between the sectors. The most widely used font size for heading 2 is 13px, while 8px was used for heading 3. All categories prefer to make the font weight bold, except for the health category, which makes it heading 1 and heading 3 regular. The clothing sector is the least likely to make use of heading 3.

The preferred paragraph font size is 12px. There is no agreed style to emphasize text in the paragraph; however, the health category prefers to use bold, while the electronic category uses coloured text. In general, most paragraph text is regular, has no emphasis and is black in colour.

The preferred method of text alignment for all headings and paragraph text, for all three categories, is left alignment. It was determined that the overall average number of words in a paragraph is 950. However, the number varies greatly between the three categories. For instance, the electronic category records the highest average, being 2491 words, while health contains an average of 311 words, and clothing, the lowest number of paragraph words amounting to 48 average. This deviation indicates that paragraphs are typically associated with the context and must be used to suit the type of product. It is important to note that in some cases the electronic category websites displayed more than one product on the product page. This could be a reason why this category records large averages for text, links and graphics.

The average number of words for heading 1, for all three categories, is 7. The three categories do not seem to deviate too much from each other. However, the number of words for heading 1 increases, with that for clothing being the lowest, health being slightly higher and electronics being the highest. The same trend is evident with regards to headings 2 and 3. This relates to the context of each category where clothing would require less text to describe the items, while electronics would require large amounts of text to describe the product specifications. From the data it seems that health products fall in the centre of this trend. The average number of words for heading 2 is 7 and heading 3, 15.

5.2.2. Link elements and formatting

In this section, the author will discuss the preferred elements and formatting for navigation, for popular websites. The average number of text links for the websites in all high categories is 49, while the average number of graphic links is 33. However, it should

be noted that a trend is evident regarding both the text and graphic links. The average number of text links in the clothing category is 38, while the number increases in the health category to 46, with 63 text links, the largest, in the electronics category. A similar trend emerges with regard to the graphic links. The average number of graphic links in the clothing category is 29, while the health category records a higher average of 34, and electronics, the highest average, of 37. A similar tendency can be seen as previously noted in terms of the number of paragraph and heading words. This implies the following relationship: the higher the number of words, the higher the number of links.

The highest number of links, for all categories, is the number of structural links, which suggests that the structure of the information is the most important. It also shows what other products and services the site offers. The overall average is 49. However, the number of links does not increase between the categories, as explained above. The clothing category contains an average of 46, while the electronic category has a similar average of 45. The health category records the highest average of 57.

Associative links offer more information about the product. Overall the average of 18 is much lower than for structural links. A deviation was noted between the category averages; clothing recorded the lowest average of 9, health the middle average of 13, and electronics the largest average of 32.

5.2.3. Graphic formatting

The average number of graphics for highly popular websites is 52. However, the standard deviation is high with a value of 22. Interestingly, the amount of graphics for both the clothing and health sectors is 46.8, while for the electronic sector it is 64.3, with the highest standard deviation of 28.05. Again, the fact that electronic e-commerce websites sometimes display multiple products on a page could result in the greater number of graphics and the high standard deviation. The average percentage of graphics on a page is 17 percent for highly popular websites. Electronic and health e-commerce websites used a low percentage, that of their graphical areas being 9.6 and 13.1 respectively. Although

clothing recorded the same average number of graphical elements, it had the largest graphical area of 28.3 %. When taking into account the number of graphical elements together with the percentage of graphics on a page it can be deduced that clothing uses large graphics, while electronics employs a large number of small graphics.

All websites utilised a low number of animated graphics, with a maximum of 2. All highly popular websites include an average of 33.9 static links. The standard deviation is high with a value of 16.4. The clothing sector records a slightly higher average number of static links, with a value of 37.2, as well as a higher standard deviation of 19.6. The health sector contains a similar average number of static links (34) and a smaller standard deviation of 13.8. Electronic e-commerce websites show a lower average of 30.4 static links and a comparable standard deviation of 16.2. The average for all popular websites is 30.3 graphical links, with a relatively high standard deviation of 19.6. The electronic sector contains a high average of 37.1 graphical links and records a very large standard deviation of 30. This indicates that the electronic sector websites vary greatly in the use of graphical links. The health sector makes use of a lower number of graphical links (average 26.2) while the standard deviation is 12.4. The clothing sector also utilises a low number of graphical links, with a mean of 27.5 and the lowest standard deviation of 10.5.

The most widely used format for images in all the popular websites is the GIF format. The average number of GIFs is 44.6 and the standard deviation is 19.2. The clothing sector has a similar average with a value of 40.2 and a slightly lower standard deviation of 15.9. The health sector also records a similar average of 43.5 and a comparable standard deviation of 17.8. The electronics sector uses the highest average number of GIFs with a value of 50.2 as well as a high standard deviation of 23.6. This confirms the statement above that the electronics sector makes use of a large number of images. The JPEG format was the second most frequently used format but only with an average of 5.9 and a high standard deviation of 6 for all sectors of high popularity. The electronics sector records a slightly higher average than clothing, while clothing has almost double the average of health. The only other recognized format that was used in the highly

popular websites was PNG. The electronic and clothing sectors were found to make use of this format. The use of this format is not very significant.

The minimum width and height of an image in all sectors is approximately 1 pixel by 1 pixel. The overall maximum average width and height for images is 463 by 240 pixels. This indicates that on average the largest image is in a landscape format. The images in the clothing sector employ a similar average width of 456 pixels while the average height is larger with an amount of 320 pixels. The images in the health sector possess a higher average width with a value of 497 pixels and a slightly lower average height of 194 pixels. In the electronic sector these have a slightly lower average width with a value of 436 pixels as well as a slightly lower average height with a value of 205 pixels. Note that the clothing sector, on average, utilises the largest sized images.

5.2.4. Page formatting

The formatting of a webpage consists of the width and length of the page, the background colour, the use of frames and whether or not the page is adaptable to different screen resolutions.

The average page width of highly popular websites is 830 pixels, with a standard deviation of 101 pixels. This correlates fairly well with standard computer screen resolution settings. The clothing sector records a lower average page width with a value of 774 pixels and a low standard deviation of 45. The health sector possesses a similar average page width of 817 as well as a similar standard deviation of 99. The electronic sector uses the highest average page width with a value of 901 and a similar standard deviation of 109. The average page length is 3036 pixels. The standard deviation is very high with a value of 7229 pixels. This large deviation fits the assumption that the amount of content within all websites will vary greatly. The clothing sector records the smallest average page width with a value of 10667 pixels. The health sector also possesses a low average page length with a value of 1854. The electronic sector’s average page length, 6187 pixels, is approximately six times greater than that of the clothing sector.

Table 7 - Frequency of background colours used for highly popular website sectors.

	All Sectors		Clothing Sector		Health Sector		Electronic Sector	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Black	2	6.7	1	10.0	1	10.0	0	0.0
White	15	50.0	4	40.0	4	40.0	7	70.0
Blue	3	10.0	0	0.0	3	30.0	0	0.0
Grey	9	30.0	4	40.0	2	20.0	3	30.0
Pink	1	3.3	1	10.0	0	0.0	0	0.0

Table 7 indicates the usage of background colours in the various sectors of highly popular websites. It is noted that a white background is the preferred colour for all sectors. Grey is the second most popular colour used for this purpose.

It is noted that no highly popular websites make use of frames.

Overall, 56 percent of all highly popular websites are adaptable to screen resolution. Only 20 percent of clothing sector websites are adaptable. The health sector records the highest frequency of page resolution adaptability, 90 percent, while in the electronic sector 60 percent of websites are adaptable to screen resolution.

5.2.5. Functionality

The functionalities of e-commerce websites considered in this section include searching, customer comments, the presence of a cart, suggested products and recently viewed products.

Eighty seven percent of popular websites have a search function while 70 percent of the clothing sector and 90 percent of the electronic sector websites include this functionality.

Overall, only 33 percent of highly popular websites offered a facility for customer comments. The electronic sector indicated the highest frequency (60%) of facilities for

customer comments while in the health sector the frequency was 30 percent; the clothing sector contained the lowest (10%).

All highly popular websites possessed the functionality of a cart.

Eighty percent of popular websites make use of the product suggestion functionality, which also applies to all sectors.

Ten percent of popular websites make use of the recently viewed product functionality, which also applies to all sectors.

In this section the author discussed the values of the data for each design parameter. The next section includes the relationships between the design parameters, sectors, and popularities.

5.3. Statistical analysis of the relationship between numerical design parameters and popularity

Below, the design parameters that deviated significantly in terms of the relevant popularity levels are statistically described in Table 8. This table lists the hypothesis test results with a 5% confidence level as described in section 4.3. Each relevant popularity level is represented as a mean plot against the associated design parameter. In this graph the mean of each numerical design parameter for each popularity is plotted. The abscissa (x-axis) represents the different popularity groups and the ordinate (y-axis) represents the value of the mean for that particular design parameter.

According to the hypothesis test for the Kruskal Wallis, as in section 4.5, the hypothesis states that “the mean of the design parameter does differ between popularity levels”. The hypothesis tests that were accepted are of interest regarding this dissertation. This allows one to infer that the means for the accepted design parameters are a characteristic of the different popularity levels.

Table 8 - Hypothesis test results for numerical data for popularity

Design Parameter	Hypothesis Test Result	Significant Popularity Means	Significant Standard Deviation
Heading 1 weight	H_0		
Heading 2 weight	H_0		
Heading 3 weight	H_0		
Heading 1 font size	H_0		
Heading 2 font size	H_0		
Heading 3 font size	H_0		
Paragraph font size	H_0		
Paragraph line length	H_0		
Number of Heading 1 words	H_0		
Number of Heading 2 words	H_0		
Number of Heading 3 words	H_0		
Number Paragraph words	H_0		
Number of text links	H_0		
Number of Graphic Links	H_1	High: 33.27 Medium: 18.03 Low: 11.87	High: 21.104 Medium: 17.450 Low: 12.219
Number of Structural Links	H_1	High: 49.17 Medium: 39.50 Low: 34.00	High: 26.893 Medium: 26.858 Low: 21.686
Number of Associative Links	H_1	High: 17.7 Medium: 9.53 Low: 7.13	High: 19.903 Medium: 13.408 Low: 9.847
Number of “See Also” Links	H_1	High: 14.07 Medium: 6.60 Low: 7.03	High: 12.323 Medium: 5.282 Low: 11.254
Number of Graphical elements	H_0		

Design Parameter	**Hypothesis Test Result**	**Significant Popularity Means**	**Significant Standard Deviation**
Percentage of Graphics on Page Area	H_0		
Number of static Graphics	H_0		
Number of Animated Graphics	H_0		
Amount of Links	H_0		
JPEG	H_0		
GIF	H_0		
BMP	H_0		
PNG	H_0		
TIFF	H_0		
OTHER	H_0		
Graphic Min. width	H_1	High: 1.27 Medium: 19.97 Low: 18.00	High: 1.112 Medium: 32.742 Low: 29.459
Graphic Min. height	H_1	High: 1.27 Medium: 13.00 Low:15.83	High: 1.112 Medium: 21.189 Low: 28.525
Graphic Max. width	H_0		
Graphic Max. height	H_0		
Page length	H_0		
Page width	H_1	High: 830.27 Medium: 827.77 Low: 917.67	High: 101.298 Medium: 117.002 Low: 129.306

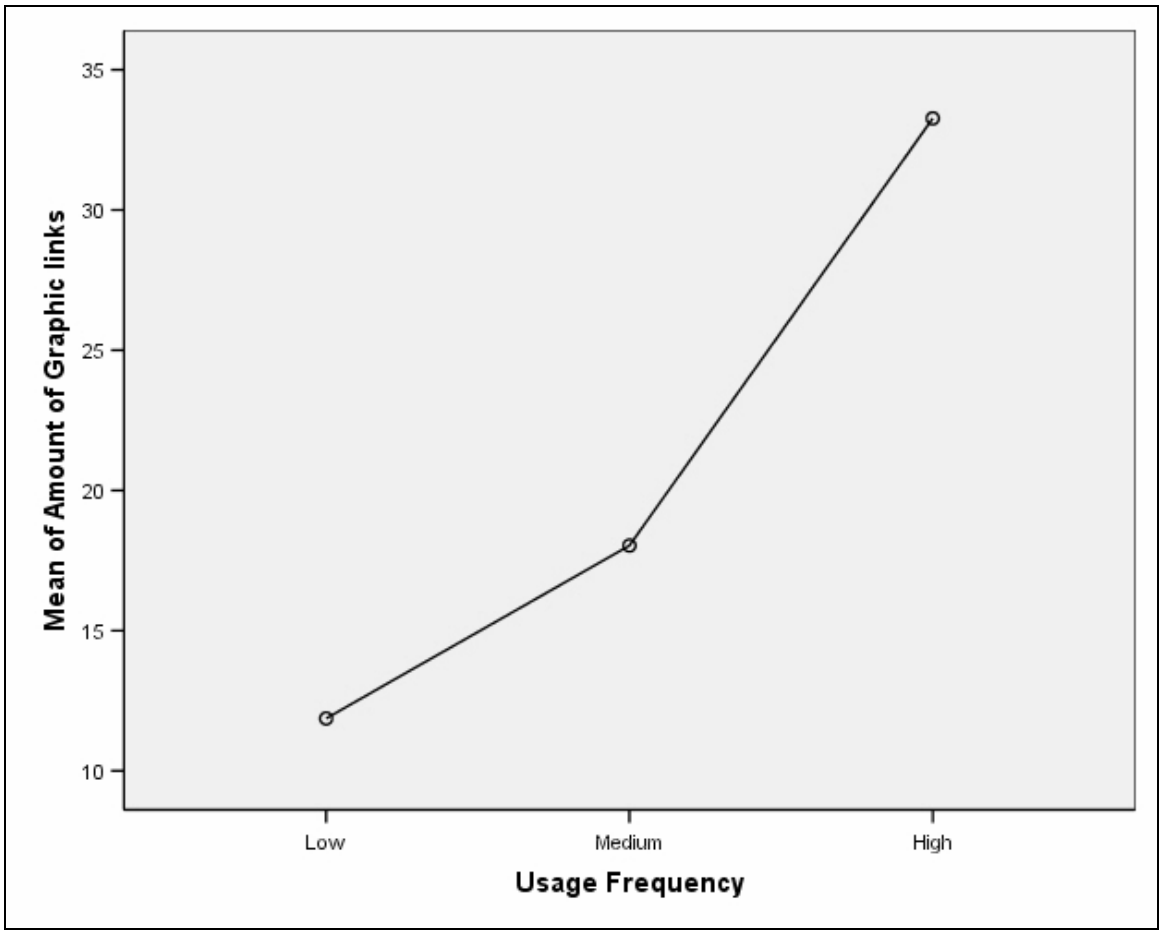

Figure 5 - Mean plot illustrating the mean of number of graphic links against popularity

Figure 5 - Mean plot illustrating the mean of number of graphic links against popularity- Mean plot illustrating the mean of number of graphic links against popularity illustrates that a website with a high popularity rating contains a greater number of graphic links. Hence high popularity websites use more graphic links than those of a medium to low popularity.

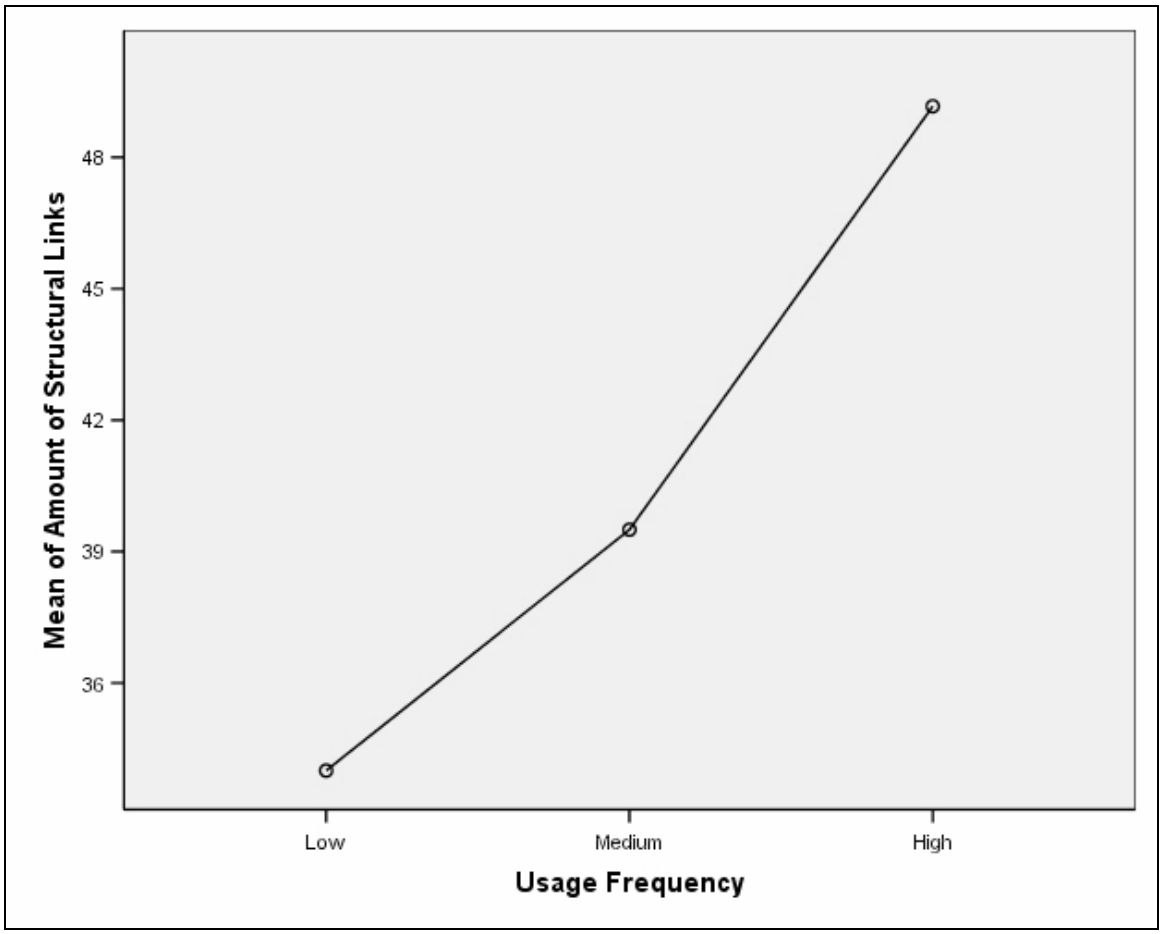

Figure 6 - Mean plot illustrating the mean of number of structural links against popularity

Figure 6 - Mean plot illustrating the mean of number of structural links against popularity- Mean plot illustrating the mean of number of structural links against popularity illustrates that a website with a high popularity rating contains a higher number of structural links. This means that high popularity websites use more structural links than those of a medium and low popularity. There is an increasing positive linear regression between the number of structural links and the popularity levels.

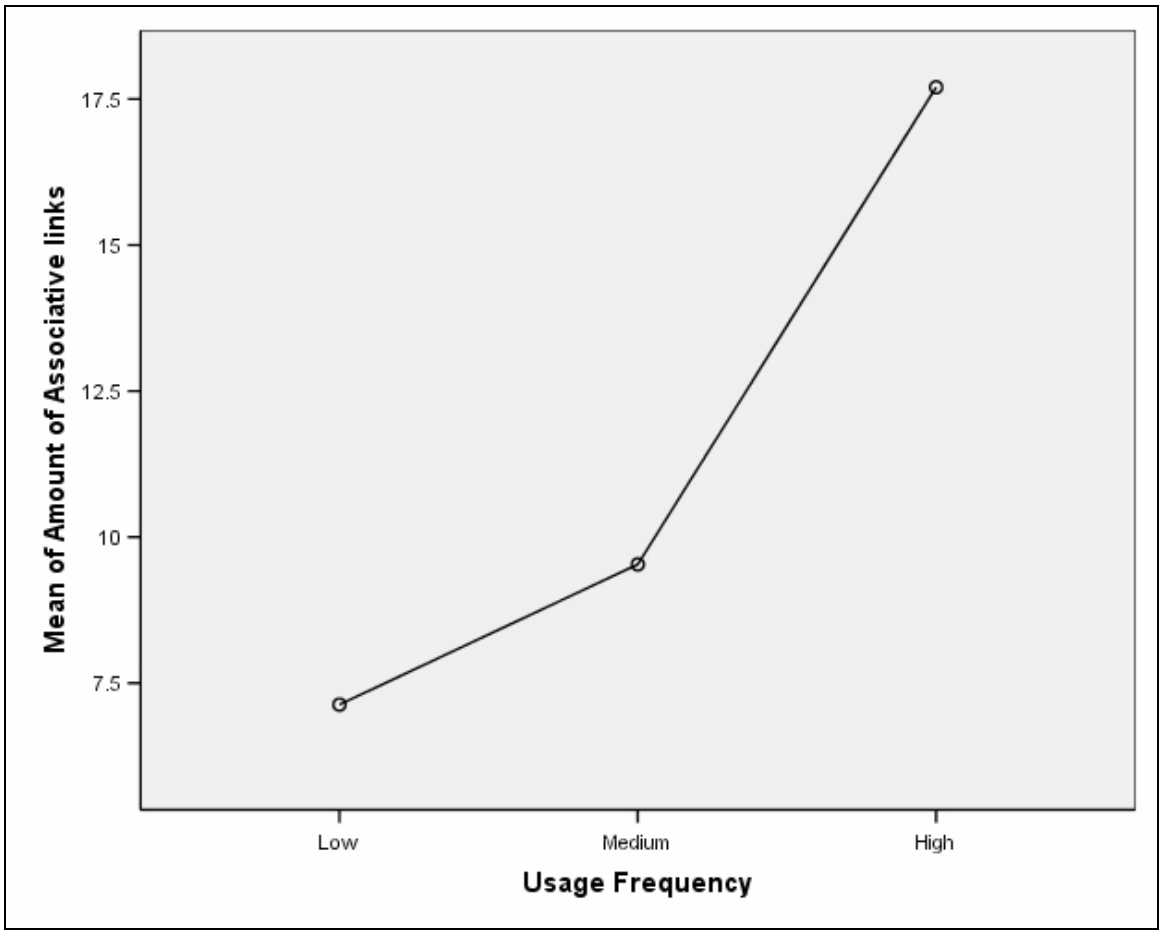

Figure 7 - Mean plot illustrating the mean of number of associative links against popularity

Figure 17 illustrates that a website with a high popularity rating contains a higher number of associative links. Consequently more popular websites provide more information associated with their products. The highly popular websites also record a larger standard deviation; this wider spread of the data indicates that the use of associative links may vary much, which means that highly popular websites offer a greater variety to users.

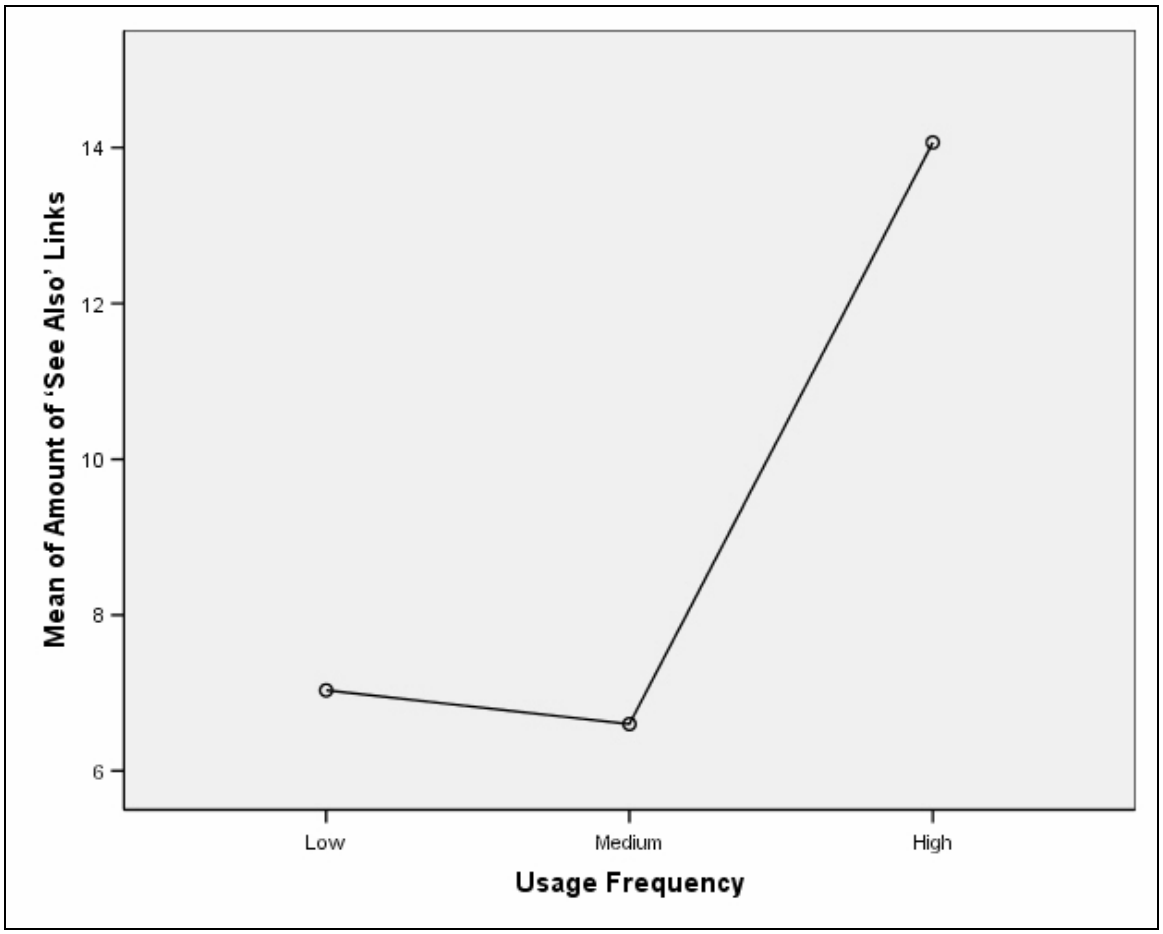

Figure 8 - Mean plot illustrating the mean of number of "See Also" links against popularity.

Figure 8 illustrates that a website with a high popularity rating uses a higher number of "See Also" links. Hence more popular websites allow the customer to obtain information on other products and he/she is therefore able to quickly access these products. The highly popular websites also indicate a larger standard deviation; this wider spread of the data indicates that the use of "See Also" links may vary greatly which means that highly popular websites offer a greater variety of use.

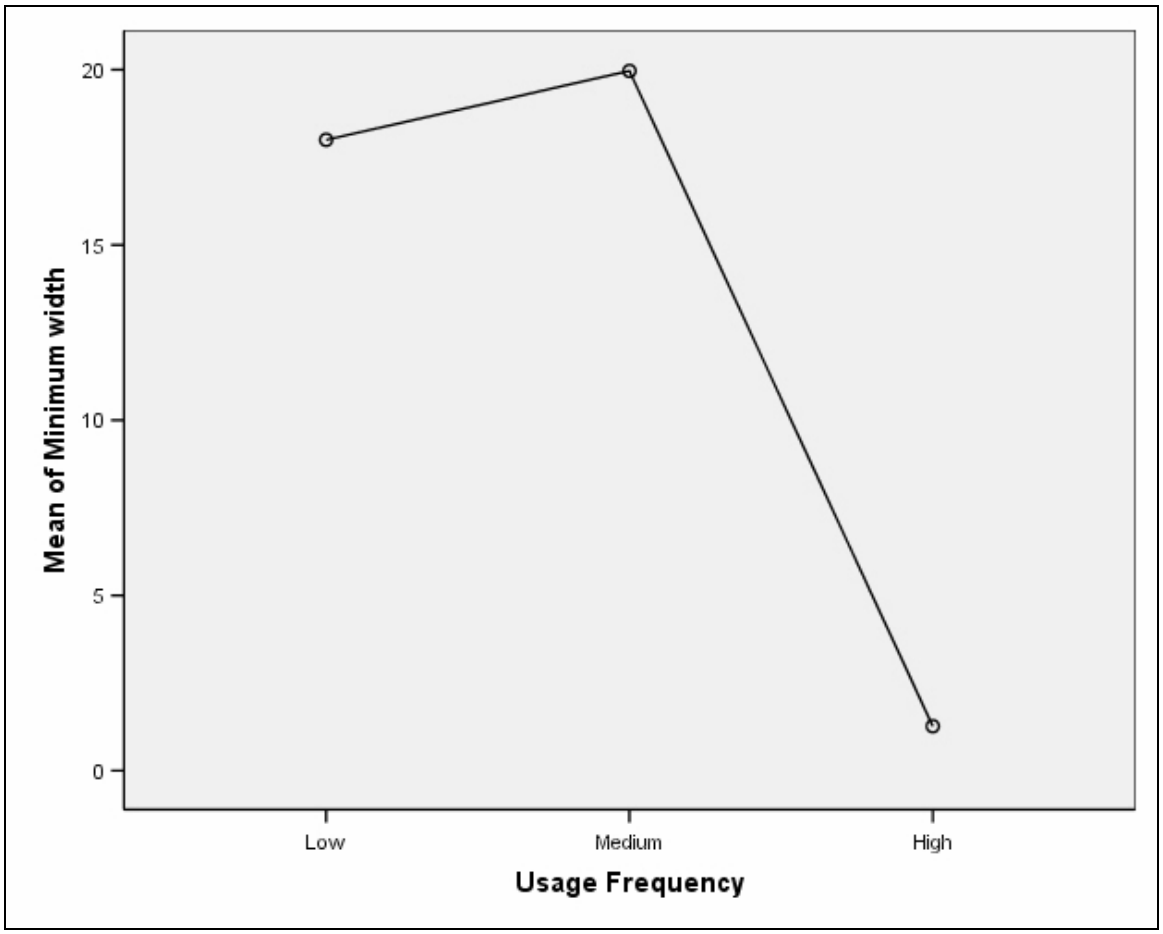

Figure 9 - Mean plot illustrating the mean of minimum width against popularity

Figure 9 illustrates the width of the smallest image used in the websites. The standard deviation of the highly popular website does not show a large deviation in the data and has a median of one pixel. This suggests that the designers of highly popular websites made use of more complicated and intricate techniques in the website design. The other popularity levels indicate a greater variety in the minimum size of the image and an average larger mean size. This indicates that only essential graphical detail was used in their design and design in finer detail was not included.

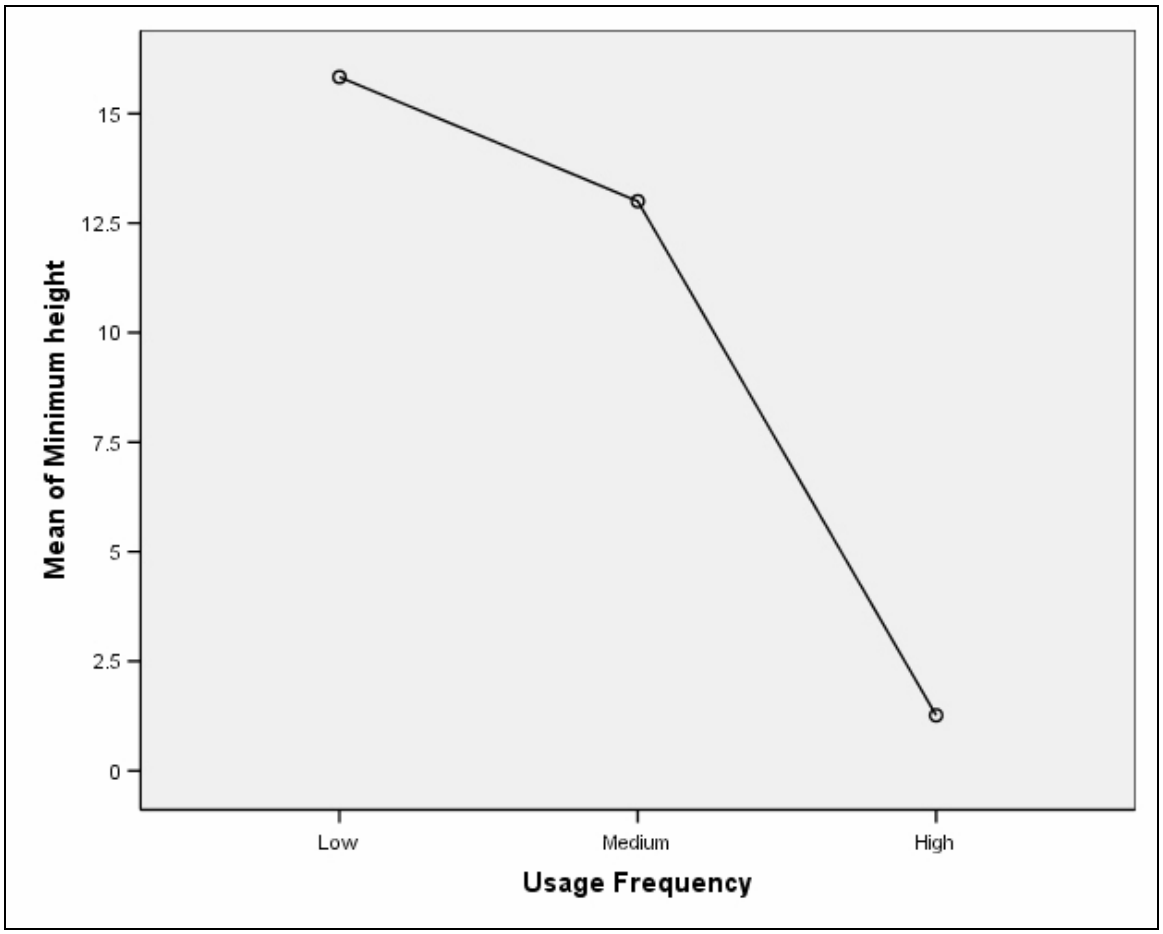

Figure 10 - Mean plot illustrating the mean of minimum height against popularity.

Figure 10 illustrates the height of the smallest image used in the websites. The standard deviation of the highly popular website, once again, does not show any deviation in the data and has a median of one pixel. This suggests that the designers of such websites made use of more complicated and intricate techniques in the website design. The other popularity levels indicate a greater variety and larger mean in the minimum size of an image. This indicates that only essential graphical detail was used in their design and finer detailed design was not included.

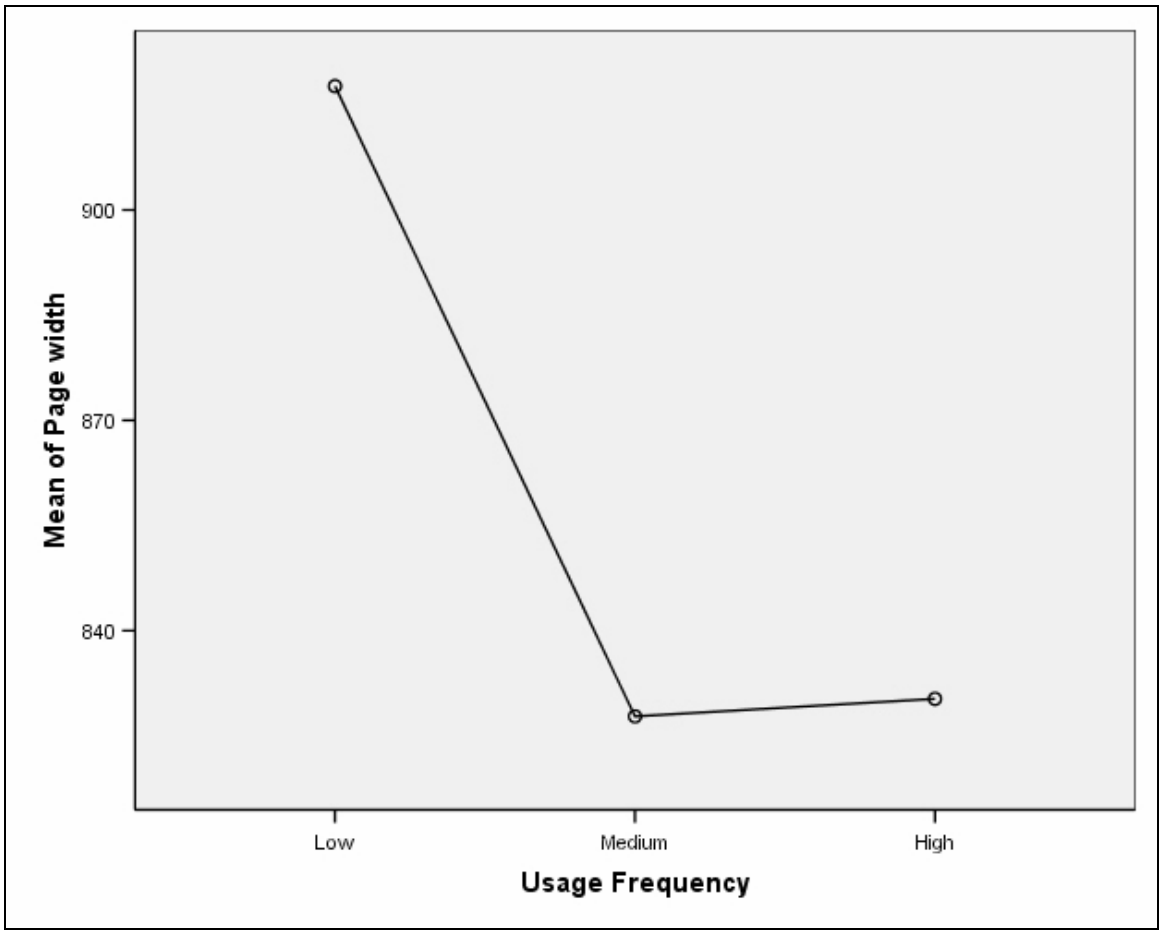

Figure 11 - Mean plot illustrating the mean page width against popularity

Figure 11 illustrates that the less popular websites exhibit a higher page width design than the websites of high and medium popularity. The even spread of the data between all popularity levels suggests that page widths vary from approximately 760 pixels to 1000 pixels. It would appear that high and medium popular websites allow for users with lower screen resolutions to view their websites, which suggests that their website designs are flexible as regards the user's screen resolution.

5.4. Statistical analysis of the relationship between numerical design parameters and sector

The design parameters that deviated significantly for the relevant sectors are statistically described in Table 9. This table lists the hypothesis test results with a 5% confidence

level as described in section 4.5. Each relevant sector is represented as a mean plot against the associated design parameter. In this graph the mean of each numerical design parameter for each sector is plotted. The abscissa (x-axis) represents the different sector groups while the ordinate (y-axis) represents the value of the mean for that particular design parameter.

According to the hypothesis test for the Kruskal Wallis as in section 4.5, the hypothesis states that "the mean of the design parameter does differ between sector groups". The hypothesis tests that were accepted are of interest for this section. This allows one to infer that the means for the accepted design parameters are a characteristic of the different sectors.

Table 9 - Hypothesis test results for numerical data for sectors.

Design Parameter	**Hypothesis Test Result**	**Significant Popularity Means**	**Significant Standard Deviation**
Heading 1 weight	H_0		
Heading 2 weight	H_0		
Heading 3 weight	H_0		
Heading 1 font size	H_0		
Heading 2 font size	H_1	Clothing: 12.58 Electronics: 15.04 Health: 15.58	Clothing: 2.796 Electronics: 4.481 Health: 3.831
Heading 3 font size	H_0		
Paragraph font size	H_0		
Paragraph line length	H_0		
Number of Heading 1 words	H_0		
Number of Heading 2 words	H_1	Clothing: 7.70 Electronics: 12.83 Health: 11.45	Clothing: 6.990 Electronics: 7.626 Health: 15.862
Number of Heading 3 words	H_0		
Number Paragraph words	H_0		

Design Parameter	**Hypothesis Test Result**	**Significant Popularity Means**	**Significant Standard Deviation**
Number of text links	H_1	Clothing: 41.40 Electronics: 49.00 Health: 31.23	Clothing: 24.890 Electronics: 28.893 Health: 24.312
Number of Graphic Links	H_0		
Number of Structural Links	H_0		
Number of Associative Links	H_1		
Number of "See Also" Links	H_0		
Number of Graphical elements	H_0		
Percentage of Graphics on Page Area	H_1	Clothing: 22.84 Electronics: 14.21 Health: 16.00	Clothing: 9.807 Electronics: 9.872 Health: 10.263
Number of static Graphics	H_0		
Number of Animated Graphics	H_0		
Number of Links	H_0		
JPEG	H_0		
GIF	H_0		
BMP	H_0		
PNG	H_0		
TIFF	H_0		
OTHER	H_0		
Graphic Min. width	H_0		
Graphic Min. height	H_0		
Graphic Max. width	H_0		
Graphic Max. height	H_1	Clothing: 291.67	Clothing: 148.300

Design Parameter	Hypothesis Test Result	Significant Popularity Means	Significant Standard Deviation
		Electronics: 208.00 Health: 214.90	Electronics: 135.484 Health: 133.871
Page length	H_0		
Page width	H_1	Clothing: 840.40 Electronics: 898.60 Health: 836.70	Clothing: 120.784 Electronics: 106.163 Health: 133.195

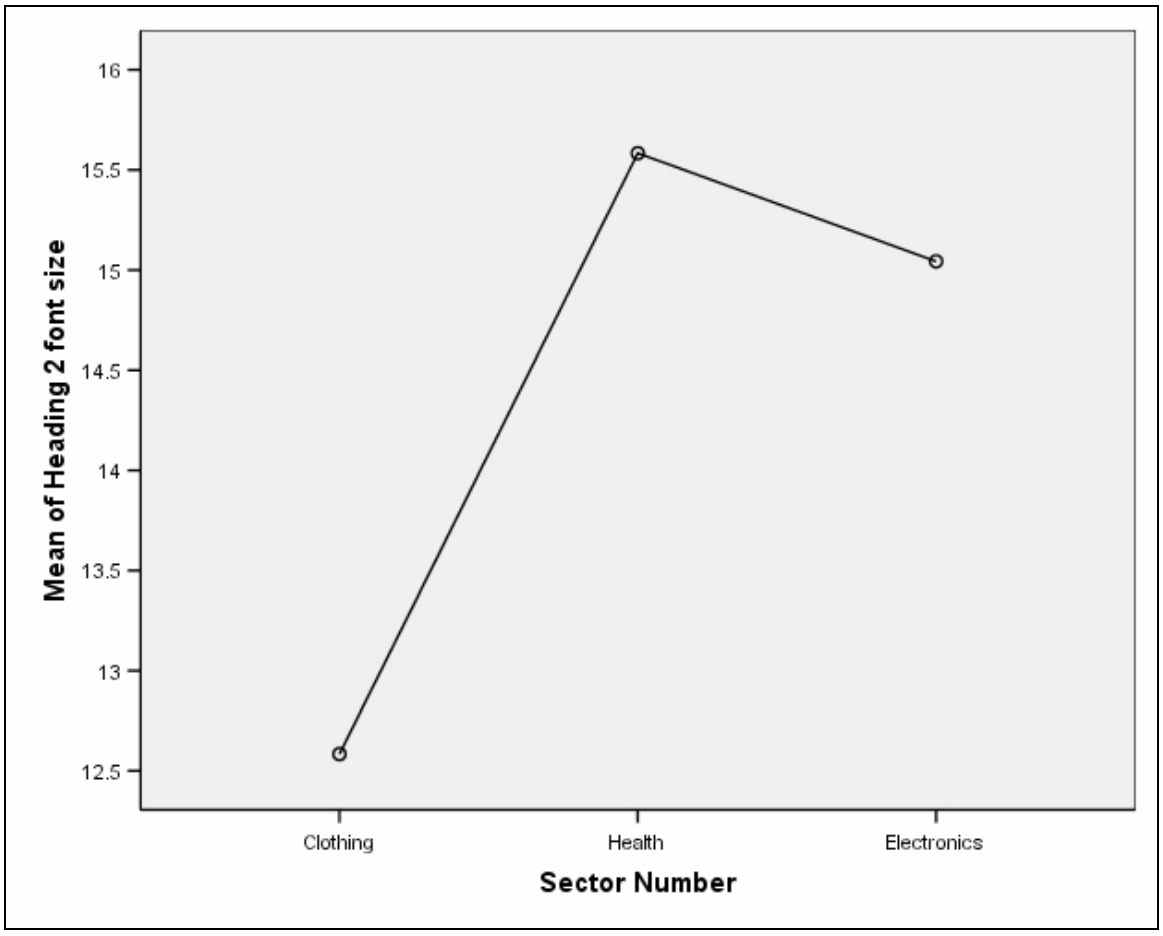

Figure 12- Mean plot illustrating the mean of heading 2 size against sector

Figure 12 illustrates that the websites in the health category make use of a larger font size for their heading 3 texts. The use of a larger font size suggests that it is easier to read.

This ease of readability is therefore used more in the health category than other categories.

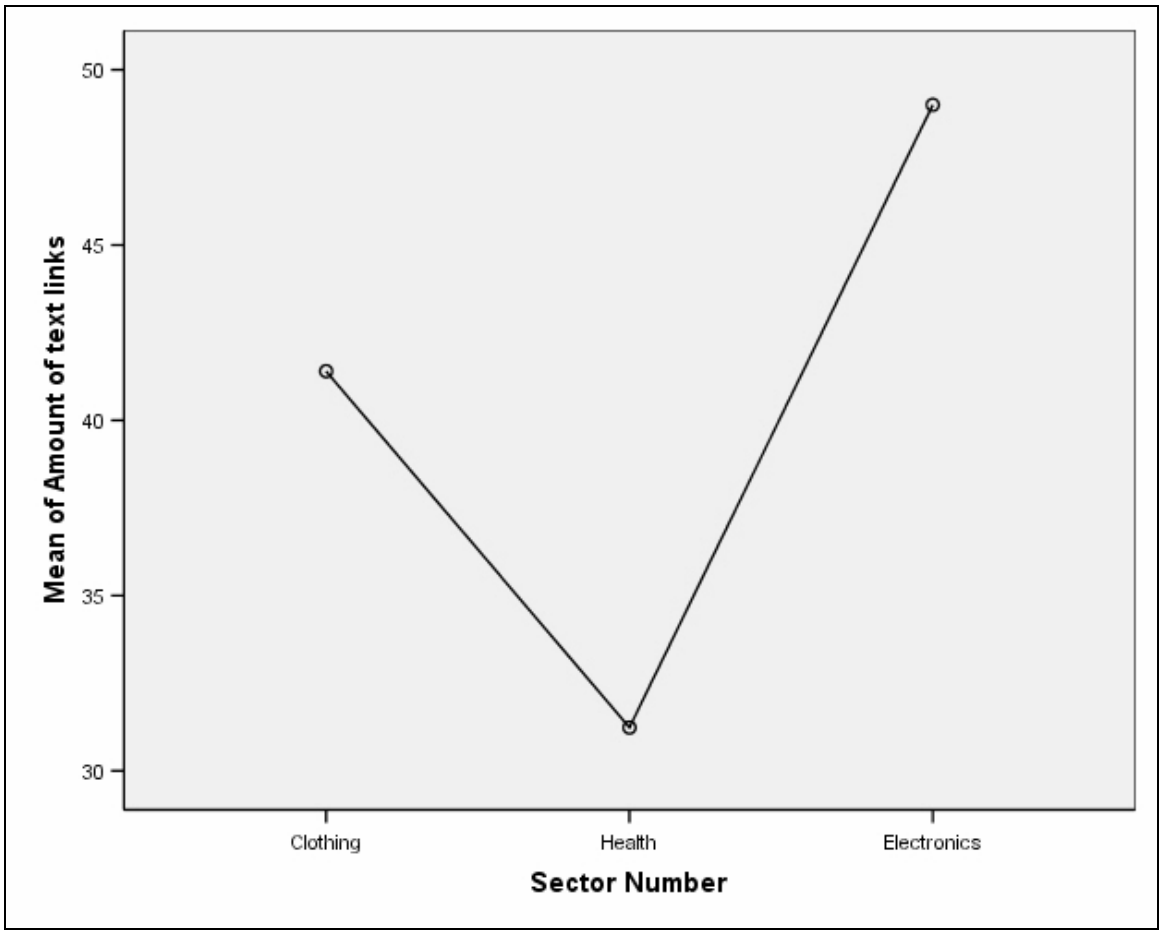

Figure 13 - Mean plot illustrating the mean of number of text links against sector

Figure 13 illustrates that websites in the health sector use a lower number of text links than the other two categories. The distribution of the data is similar between all categories. These factors indicate that clothing and electronic product websites allow for more text hyperlinks in their design. The deviation in graphic links is not significant enough to conclude that a relationship exists between the sectors. This suggests that the overall number of links used in website design for the health sector is lower and therefore allows for less opportunity to view other products or web pages.

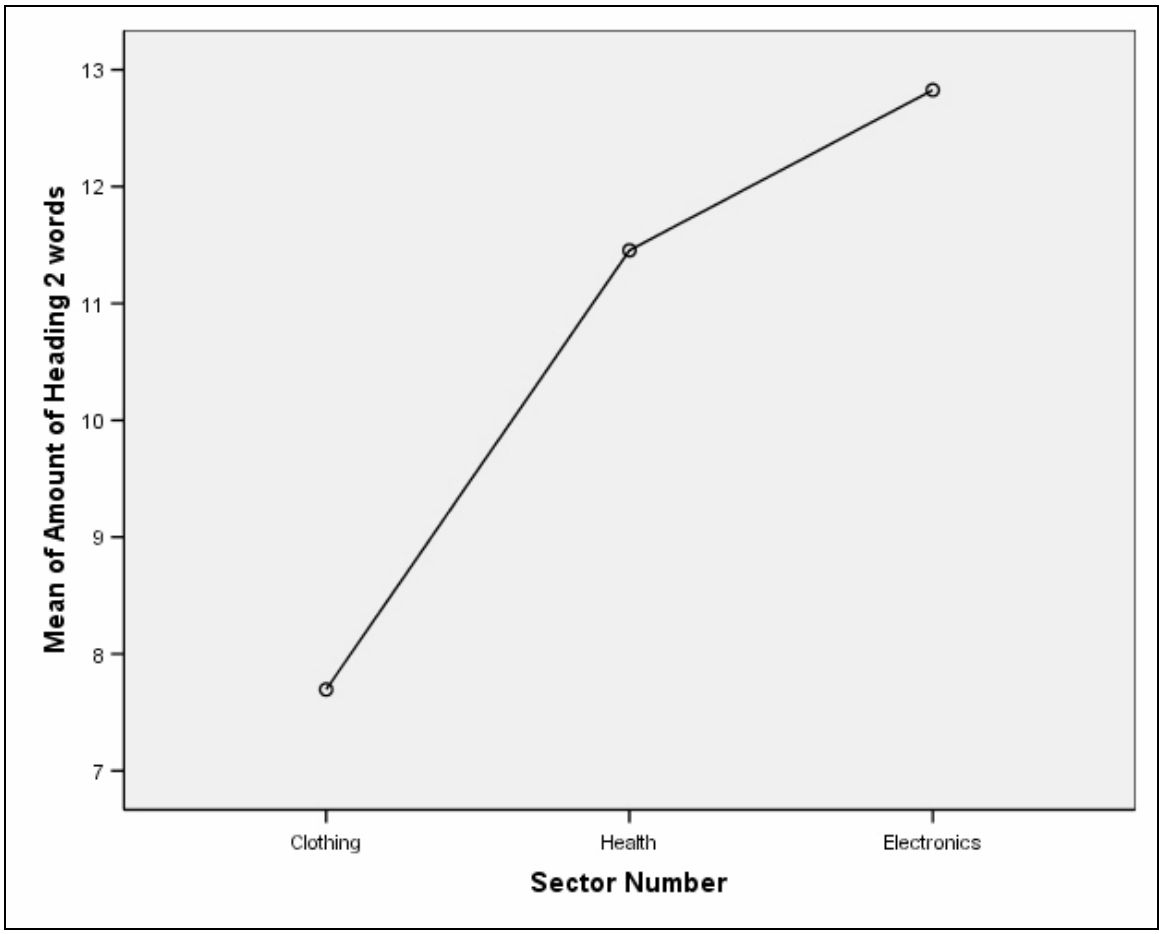

Figure 14 - Mean plot illustrating the mean of heading 2 words against sector

Figure 14 illustrates that there is a higher number of heading 2 words in a website in the electronics sector. This means that websites in this sector typically contain more structured information or have more descriptive sub-headings, or the reason could also be that the websites include multiple products on one page.

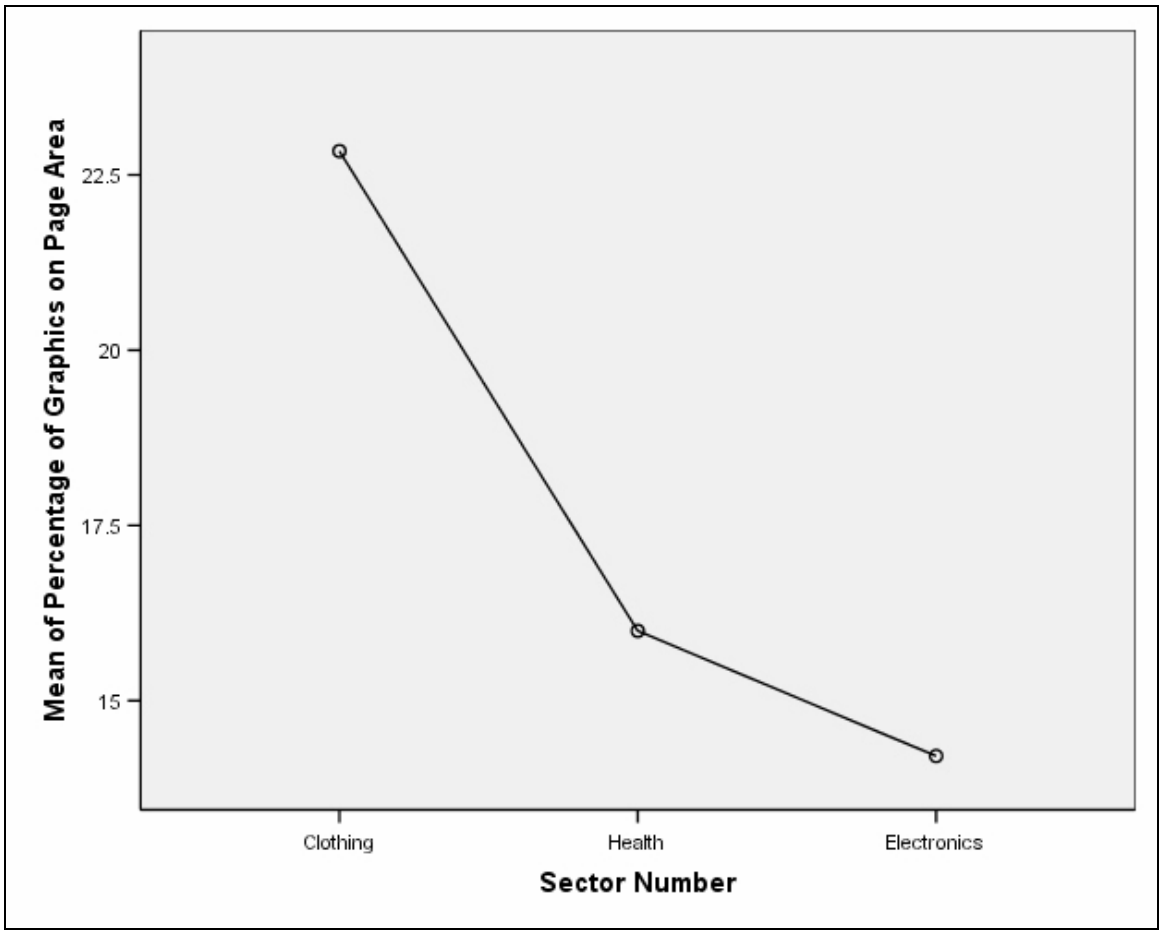

Figure 15 - Mean plot illustrating the mean of heading 2 size against sector

Figure 15 illustrates that clothing websites contain a higher percentage of graphics on the page. The even spread of the data for all categories indicates that design principles in terms of the percentage of graphics on the page are similar within each category.

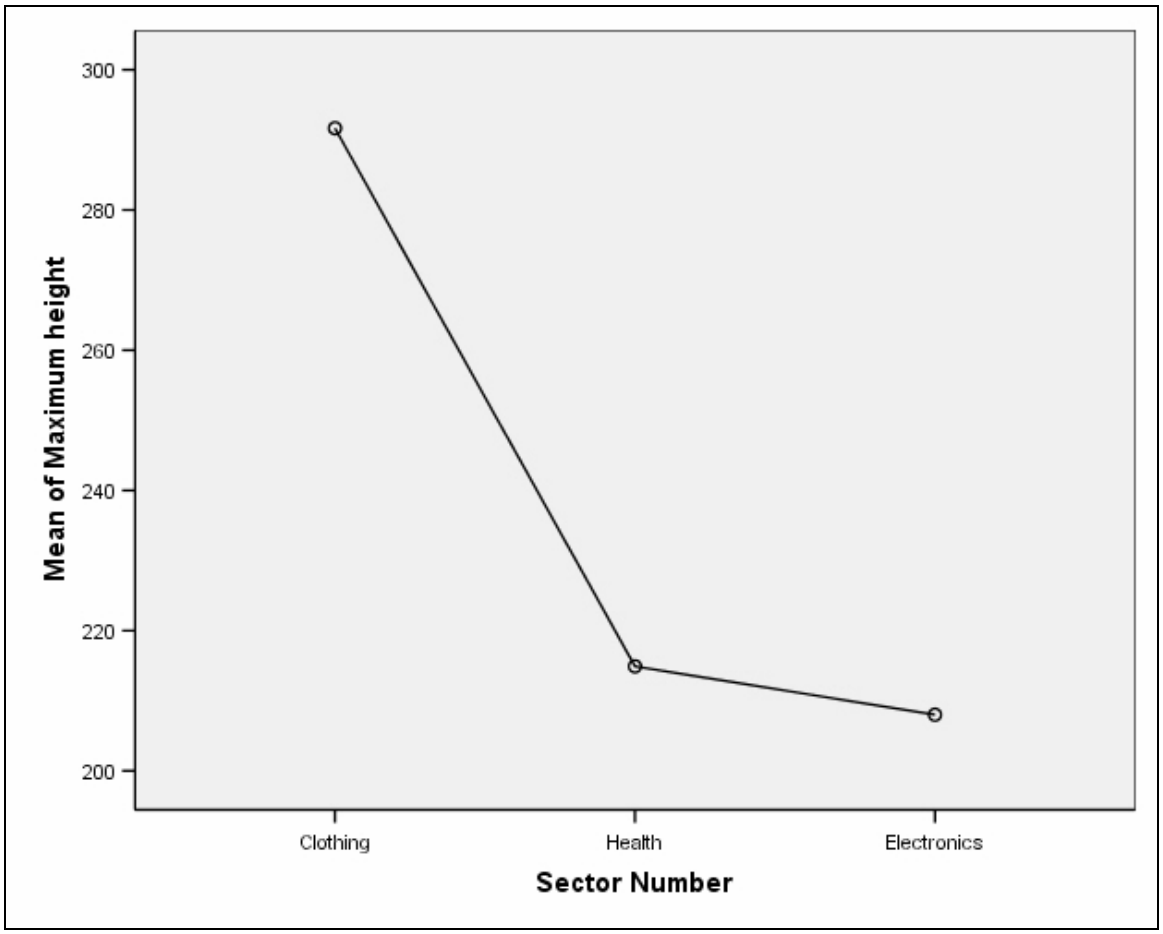

Figure 16- Mean plot illustrating the mean of maximum height of image against sector

Figure 16 illustrates that clothing websites make use of images with a larger height than the other categories. The spread of the data is uniform within each category, which means that the design principles within each category are fairly well established. This could suggest that clothing product images are larger in height than the images in the websites for the electronic or health sectors, which supports the generalization that clothing product images are larger in length than electronic and health products.

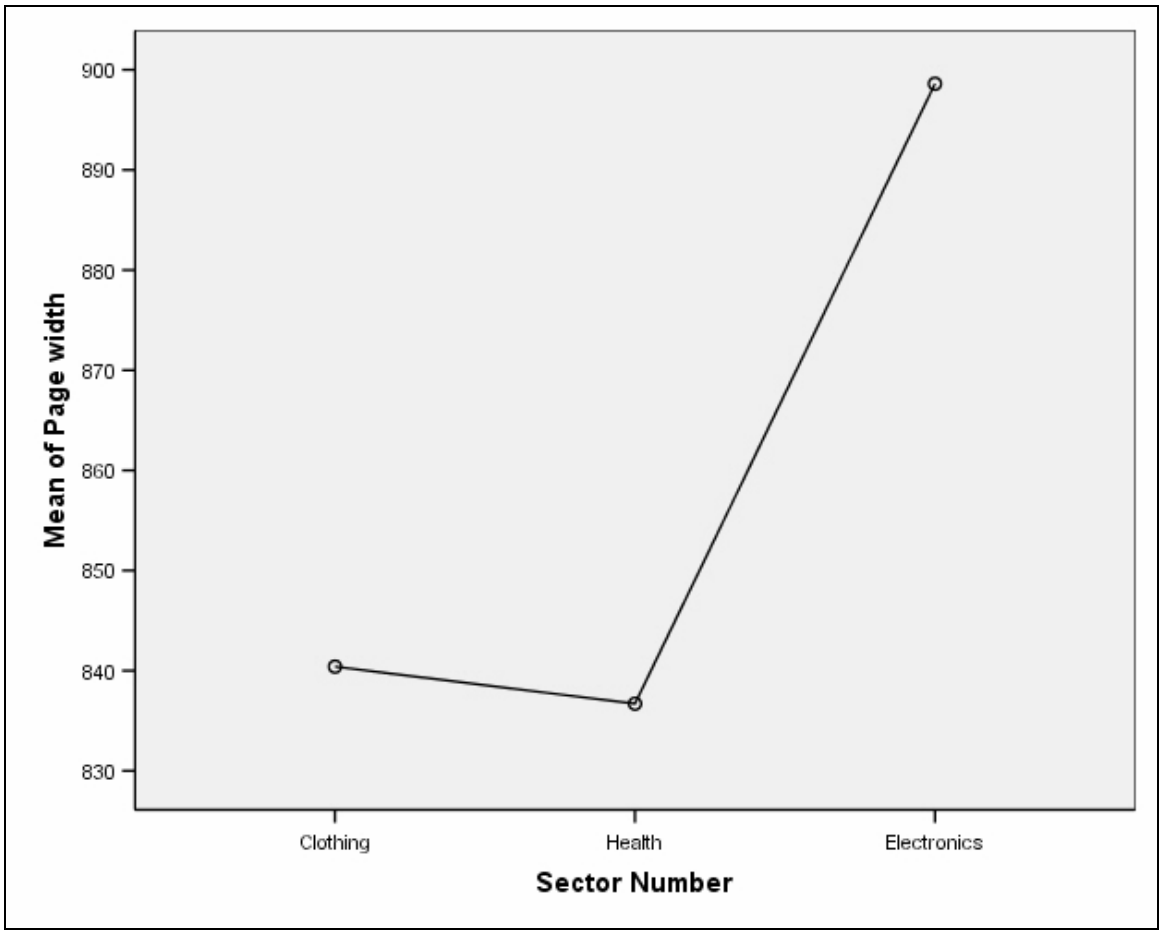

Figure 17 - Mean plot illustrating the mean of page width against sector

Figure 17 illustrates that electronic sector websites employ a higher page width design than the clothing and health sector websites; this suggests that they allow for users with lower screen resolutions to view their websites, and are more flexible regarding the user's screen resolution.

5.5. Statistical analysis of the relationship between categorical design parameters and popularity

This section describes the categorical design parameters that deviated significantly for the relevant popularity levels as described in Table 10. This table lists the hypothesis test results with a 5% confidence level as described in section 4.4.5. Each relevant popularity level is represented as a frequency matrix for each associated categorical design

parameter. In this table the tally of each such parameter for each popularity level is indicated. The value indicates the frequency usage of the associated parameter.

According to the hypothesis test for the chi-square test, as in section 4.5, the hypothesis states that “there is an association in design parameters between popularity levels”. The hypothesis tests that were accepted are of interest for this section, which allows one to infer that specific categorical design parameters are a characteristic of the different popularity levels.

Table 10 - Hypothesis test results for categorical data for popularity.

Variables	**Hypothesis**	**Significant Frequencies**
Underlined	H_0	
Italics	H_1	High: Yes-20% No-80% Medium: Yes-3.3% No-96.7% Low: Yes-0% No-100%
Bold	H_0	
Coloured Text	H_0	
Capital Letters	H_0	
Spacing	H_0	
none (no text emphasis)	H_0	
Heading 1 Alignment	H_0	
Heading 2 Alignment	H_0	
Heading 3 Alignment	H_0	
Paragraph Alignment	H_0	
Links underlined	H_0	
Background colour	H_0	
Frames	H_0	
Adaptable to screen resolution	H_1	High: Yes-56.7% No-43.3% Medium: Yes-76.7% No-23.3% Low: Yes-36.7% No-63.3%
Search	H_0	
Customer Comments	H_0	

Cart	H_1	High: Yes-100% No-0% Medium: Yes-80% No-0% Low: Yes-80% No-0%
Suggestion	H_1	High: Yes-80% No-20% Medium: Yes-40% No-60% Low: Yes-36.7% No-63.3%
Recently viewed	H_0	

Table 11 - Usage frequency of italics

Crosstab

			Usage Frequency			Total
			Low	Medium	High	
Italics	No	Count	30	29	24	83
		% within Usage Frequency	100.0%	96.7%	80.0%	92.2%
	Yes	Count	0	1	6	7
		% within Usage Frequency	.0%	3.3%	20.0%	7.8%
Total		Count	30	30	30	90
		% within Usage Frequency	100.0%	100.0%	100.0%	100.0%

Table 11 - Usage frequency illustrates that the majority of popular websites do not make use of italics in the text, however, 20% of high popularity websites cause a significant deviation in the statistic. This indicates that highly popular websites allow for more variety in their design.

Table 12 - Adaptable to screen resolution usage frequency

Crosstab						
			Usage Frequency			Total
			Low	Medium	High	
Adaptable to screen resolution	No	Count	19	7	13	39
		% within Usage Frequency	63.3%	23.3%	43.3%	43.3%
	Yes	Count	11	23	17	51
		% within Usage Frequency	36.7%	76.7%	56.7%	56.7%
Total		Count	30	30	30	90
		% within Usage Frequency	100.0%	100.0%	100.0%	100.0%

Table 12 - Adaptable to screen resolution usage frequency illustrates that high and medium popularity websites are adaptable to screen resolution. Low popularity websites are less likely to be adaptable to the user's screen resolution. Interestingly, a higher percentage of medium popularity websites are adaptable to such a resolution than highly popular websites. This probably means that the page width of such websites is suitable for the average user's screen resolution, which cancels the ability to adapt to screen resolution (refer to Figure 16).

Table 13 - Cart Usage Frequency

Crosstab						
			Usage Frequency			Total
			Low	Medium	High	
Cart	No	Count	6	6	0	12
		% within Usage Frequency	20.0%	20.0%	.0%	13.3%
	Yes	Count	24	24	30	78
		% within Usage Frequency	80.0%	80.0%	100.0%	86.7%
Total		Count	30	30	30	90
		% within Usage Frequency	100.0%	100.0%	100.0%	100.0%

Table 13 illustrates that it is highly likely that all website popularities contain a cart. It is noted, however, that all highly popular websites possess carts, while 20% of the other websites do not offer this facility.

Table 14 - Suggestion Usage Frequency

Crosstab						
			Usage Frequency			Total
			Low	Medium	High	
Suggestion	No	Count	19	18	6	43
		% within Usage Frequency	63.3%	60.0%	20.0%	47.8%
	Yes	Count	11	12	24	47
		% within Usage Frequency	36.7%	40.0%	80.0%	52.2%
Total		Count	30	30	30	90
		% within Usage Frequency	100.0%	100.0%	100.0%	100.0%

Table 14 illustrates that highly popular websites make suggestions regarding other products offered. Medium and low popularity websites generally do not make use of such a facility. This shows that customers like to see what else the website offers and makes it easier and quicker for them to access these products.

5.6. Statistical analysis of the relationship between categorical design parameters and sector

This section describes the categorical design parameters that deviated significantly for the relevant sector groups as described in Table 15. This table lists the hypothesis test results with a 5% confidence level as described in section 4.4.5. Each relevant sector group is represented as a frequency matrix for each associated categorical design parameter. In this table the tally of each design parameter for each sector group is indicated. The tally indicates the frequency usage of the associated design parameter.

According to the hypothesis test for the chi-square test, as in section 4.5, the hypothesis states that "there is an association in design parameters between sector groups". The hypothesis tests that were accepted are of interest for this section, which allows one to infer that specific categorical design parameters are a characteristic of the different sector groups.

Table 15- Hypothesis test results for categorical data for sectors.

Variables	**Hypothesis**	
Underlined	H_0	
Italics	H_0	
Bold	H_0	
Coloured Text	H_0	
Capital Letters	H_0	
Spacing	H_0	
none (no text emphasis)	H_0	
Heading 1 Alignment	H_0	
Heading 2 Alignment	H_0	
Heading 3 Alignment	H_0	
Paragraph Alignment	H_0	
Links underlined	H_0	
Background colour	H_0	
Frames	H_0	
Adaptable to screen resolution	H_1	Clothing: Yes-43.3% No-56.6% Health: Yes-76.7% No-23.3% Electronics: Yes-50% No-50%
Search	H_1	Clothing: Yes-63.3% No-36.3% Health: Yes-70% No-30% Electronics: Yes-90% No-10%
Customer Comments	H_0	
Cart	H_0	
Suggestion	H_0	
Recently viewed	H_0	

Table 16 - Adaptable to screen resolution - Sector usage

Crosstab						
			Sector Number			Total
			Clothing	Health	Electronics	Clothing
Adaptable to screen resolution	No	Count	17	7	15	39
		% within Sector Number	56.7%	23.3%	50.0%	43.3%
	Yes	Count	13	23	15	51
		% within Sector Number	43.3%	76.7%	50.0%	56.7%
Total		Count	30	30	30	90
		% within Sector Number	100.0%	100.0%	100.0%	100.0%

Table 16 illustrates that the clothing sector is the most likely not to be adaptable to screen resolution. Electronic category websites are equally distributed in terms of adaptability. Health category websites are the most likely to be adaptable. This could indicate that the health sector aims to be professional and caters for various users in the design of its websites.

Table 17 - Search - sector usage

Crosstab						
			Sector Number			Total
			Clothing	Health	Electronics	Clothing
Search	No	Count	11	9	3	23
		% within Sector Number	36.7%	30.0%	10.0%	25.6%
	Yes	Count	19	21	27	67
		% within Sector Number	63.3%	70.0%	90.0%	74.4%
Total		Count	30	30	30	90
		% within Sector Number	100.0%	100.0%	100.0%	100.0%

Table 17 illustrates that all websites are most likely to include a search function in their design. There is however, a significant deviation for clothing and health sector websites which do not include this function. It is suggested that an electronic category website is more likely to offer a search function to give the impression of being technologically advanced.

5.7. CHAID

Figure 18 illustrates the CHAID tree for the different popularity level websites. This tree makes use of the F-test for numerical design parameters and the chi-squared test for categorical design parameters so as to allow one to classify the websites.

The most important distinction between high, medium and low popularity websites is based on the number of GIF formatted websites. Those with less than 15 GIFs are mostly of low popularity (20 of 36 or 55%). Those between 15 and 38 GIFs were mostly medium popularity (50% or 14 of 28) and those with more than 38 GIFs were mostly highly popular (20 of 26 or 70%)

In the group with less than 15 GIFs, the next important feature is the number of associative links. Containing less than 4 associative links is a characteristic of highly popular websites while more than 4 is a characteristic of medium popularity websites. The minimum width of images is the next characteristic in this group, with narrow image width being a characteristic of low popularity sites.

In the group with 15 to 38 GIFs, the most important differentiation is by page width, with narrow pages being a characteristic of medium popularity and wide pages a characteristic of low popularity websites. In the narrow page case, many associative links (78), lead to a high popularity.

In the group with more than 38 GIFs, they may be distinguished according to the number of animations. 94.1 percent are highly popular but employ no animations; however, of those which use animations, only 44.4 percent are highly popular.

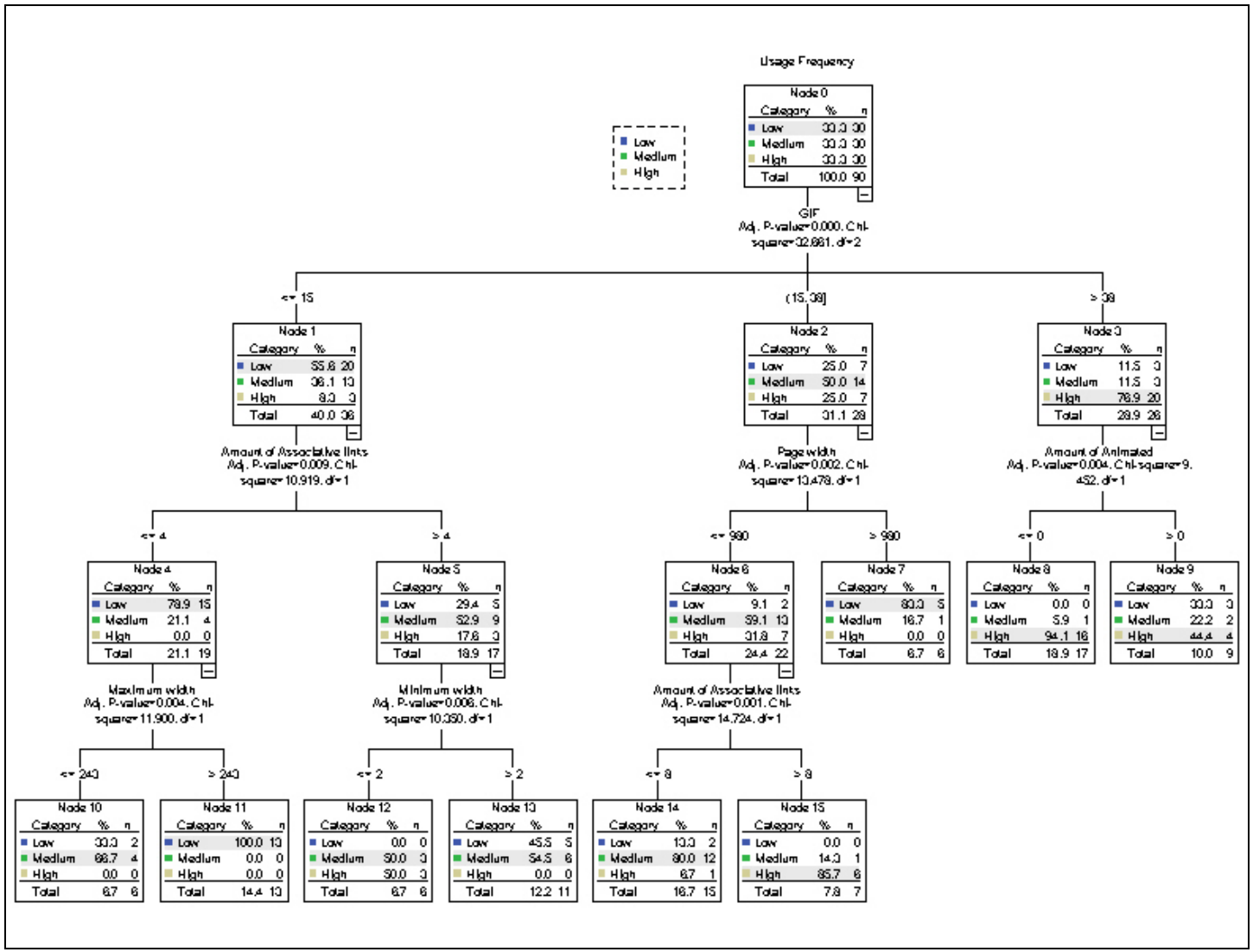

Figure 18 - CHAID for Popularity

Figure 19 illustrates the CHAID tree for the different sector group websites. This tree makes use of the F-test for numerical design parameters and the chi-squared test for categorical design parameters to allow one to classify the websites.

In Figure 19, it is evident that the most important distinction for clothing, category and health sector websites is the number of words in a paragraph. The majority of the electronic sector websites (26 of the 55 or 47.3%) contain more than 102 words in a paragraph. Those with 102 or less than 102 words in a paragraph stem mostly from the clothing sector (23 of 35 or 65.7 %).

In the group with less than 102 words per paragraph, the most important factor is the maximum width of the image. Those with a maximum width of less or equal to 243 pixels stemmed equally from the clothing and electronics sectors. Those with a maximum image width of less than 243 pixels mostly belong to the clothing category (19 out of 26 or 70.1%). This group can be characterized even further by the Heading 1 typeface; the majority of the websites that fall under the clothing sector (53.3%) use the Arial Font. All other websites that use the Verdana font belong to the clothing sector.

In the group with more than 102 words per paragraph, the most important differentiation is noted in terms of the minimum image height. Most electronics (26 out of 48 or 54.2%) websites contain images with a minimum width of less than or equal to 30 pixels. In the clothing sector 71.4% (5 out of 7) of websites employ a minimum image height greater than 30 pixels. The former group can be characterized by the use of coloured text. The majority of the health sector websites (16 out of 25, or 64%) do not make use of coloured text, while the majority of electronic sector websites do (18 out of 23 or 78%).

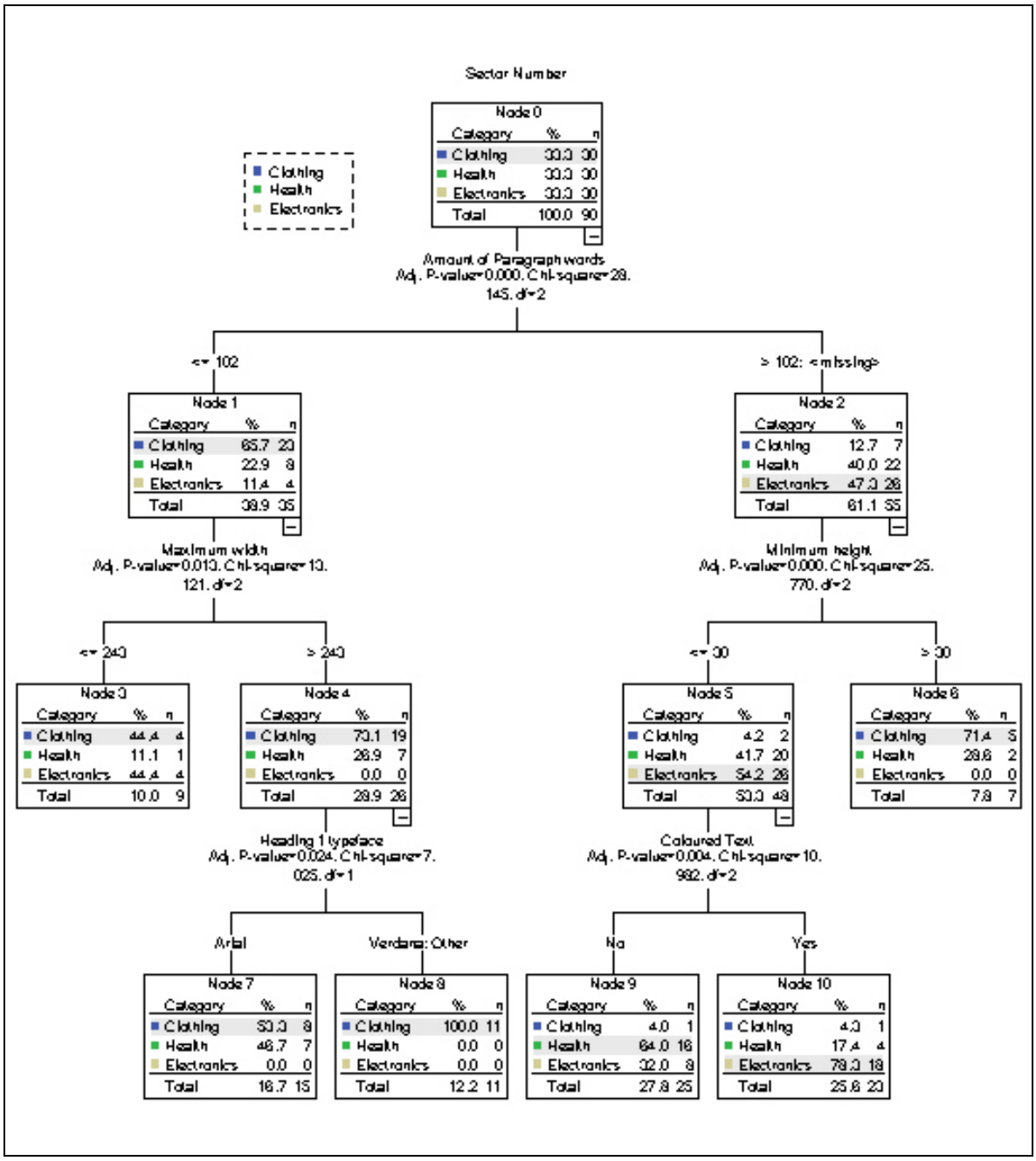

Figure 19 - CHAID for sector

5.8. Conclusion

In this chapter the researcher described the results of the data analysis . The descriptive statistics allowed one to determine the preferred design parameters for highly popular websites as well as the most popular websites for each sector. The typical values were

obtained by referring to the mean or median of the various design parameters. The writer commented on the accuracy of these design parameters in terms of the standard deviation. The relationships of the design parameters were analysed with respect to various statistical techniques.

The Kruskal-Wallis test was used to analyse the numerical data regarding both the popularity of the websites and the sectors. Mean plots were drawn only for the significant test statistic design parameters. The Chi-squared test was then applied to analyse the categorical data for the various popularity levels and sector groups. Cross-tabulation was used to tabulate the different frequencies and usages of the statistically significant design parameters. This allows one to reach a conclusion regarding the relationships between the design parameters and either the popularity level or sector.

The CHAID technique was employed to classify or characterize the websites according to all design parameters, whether numerical or categorical, for both popularity and sector.

Chapter 6 summarizes the results derived from this chapter and confirms these with the information obtained in the literature study in chapter 2 and 3. Recommendations for further research are also discussed.

6. Chapter 6: Conclusion

6.1. Introduction

The present researcher has analysed e-commerce websites in terms of quantifiable design parameters and their relation to popular websites. She has also studied this topic with respect to three different e-commerce sectors, namely health, clothing and electronics. The theory of e-commerce websites, their design parameters and their popularity measurement was established by conducting an extensive literature study. In this chapter the writer describes the research results obtained and compares these with the literature study findings.

The literature study contains information pertaining to describing e-commerce, consumers in e-commerce, measuring website statistics, website design and the differences between e-commerce and other websites. Website design parameters were further investigated so that they could be used in a quantitative analysis. Recommendations made by other literature sources were reviewed, from which e-commerce website design parameters for successful websites were noted.

The discussion in the next section of this chapter will specifically outline the relationships between individual design parameters and the popularity levels and sector groups. This is subsequently compared to the information obtained in the literature study. The design parameters are divided into their respective categories. Finally, some remarks are made with respect to how one can classify e-commerce websites according to different popularities and sector groups.

6.2. Text elements and formatting

Although fonts such as Verdana and Georgia are recommended for use on computer screens, it was found that Arial was the most commonly used font for headings and paragraphs (Lynch and Horton, 1999:77-91). Verdana was, however, the most popular font type used in the electronics sector.

No recommended text alignment was found for paragraphs or headings, but during the study it was determined that the left alignment was most often used.

Emphasising text with italics is recommended only for conventional referencing techniques. This indicates that italics is not often used in websites. The results confirm this view in that italics is rarely used in all the popularity levels.

It was recommended in the literature that bold text emphasis only be used for headings. The results obtained confirm this in that the font weight of bold is the preferred emphasis for all headings, except for the health sector which only uses bold in some headings. However, the health sector does, use bold to emphasize paragraph text.

The use of underlined text is not recommended since this can create confusion for the users because the convention is that all links are normally underlined. It was found that no websites made use of underlined text within normal text.

The literature indicates that coloured text can be used; however, the colours purple and blue should be avoided because this can also create confusion for computer users since these colours are the standard for hyperlinks. The investigation itself shows that coloured text, other than black, is rarely used except for the electronics sector.

Capital letters were not employed in the results obtained. This confirms the recommendation that capital letters should not be used because they are difficult to read.

It is recommended that paragraphs contain 9 or 10 words per line with a size 12px font. The results show that the average of words per line is 11, which is similar to the recommended amount. The most frequently used font size for paragraph text was found to be 12px which is the same as the recommended amount.

6.3. Link elements and formatting

The literature study indicates that link elements within webpages form a vital part of any e-commerce design (Nielsen, 2000:53). The use of links should enable the user to navigate efficiently through the website. The results obtained from the highly popular websites confirm this requirement in that a trend was noticed where, when the number of words increases within a webpage, so do the number of links.

Structural links are inserted to enable one to easily determine their location within a website. It was found that highly popular websites make more use of structural links than websites of medium to low popularity. A similar tendency was found with regards to associative links, which allow for more information about content, and “see also” links, which help the user find the correct page. This confirms the recommendation that navigation efficiency and information structure are considered important.

6.4. Graphic formatting

The literature study indicates that the GIF image format is recommended for non-photographic images, while the JPEG format is recommended for photographic images (Dabbs and Campbell, 2004:203). It is also recommended that the PNG format not be used because of its transparency functionality that is not supported in most web browsers. The results follow the recommendation as can be seen from the fact that GIFs are overwhelmingly the most often used image format. JPEGs are used as well, but very seldom. Electronic sector websites record the highest usage of the JPEG format, which could possibly indicate that they illustrate many products per page. This means that they require a higher photographic quality. It was found that the electronic sector websites contained the highest percentage of graphics per page.

The inclusion of animated GIFs in web pages was not recommended because they hamper information processing. This was in fact found to be true as the use of animated GIFs was marginal.

The analysis of results indicates that the use of small 1 pixel by 1 pixel images in highly popular websites is preferred. Everything on a computer monitor screen is displayed in terms of pixels; hence, a 1 by 1 pixel image is the smallest image that can be displayed on a screen. This suggests that websites that are popular require more complex and precise graphical design. These small images are used by designers to fix alignment issues as well as for background colour, where the image is repeated to cover an area with a particular colour, this also reduces disk space and download bandwidth.

6.5. Page formatting

It was found that the page width for the most popular websites was similar to the standard screen resolution of 800 pixels by 600 pixels. This, however, is not an important factor for webpage design, but adaptability to computer screen resolution is (Nielsen 2000:174-175). The research data established that websites of high and medium popularity were adaptable to screen resolution. Less popular websites were found to be less able to adapt. It was also found that the webpages in the health sector recorded the highest rate of being adaptable to screen resolution compared to the other sectors.

No recommendations were found in the literature study with respect to background colour; however, in the results analysis it was indicated that the most often used background colour for all websites is white, and secondly, grey.

It was recommended that frames should not be used in websites as these are not implemented in all browsers and hinder page navigation. The statistics confirm this since highly popular websites do not make use of frames.

6.6. Functionality

All the functionalities listed were researched and were also recommended in the literature study (Lynch and Horton, 1999:48, Rohn, 1998:110-115, Dalyleish, 2000:20). The research demonstrated that some features are extensively used by almost all the sectors and popularity groups. Highly popular websites are more likely to contain a larger number of functionalities than those with lower popularity. The usage of functionalities is

similarly equal across all sectors, except for the search functionality which is more likely to be employed in an electronic sector website. All highly popular websites included the cart function. This functionality was also widely used throughout the sectors.

Unlike the medium and low popularity websites, highly popular websites make use of the product suggestion functionality. This indicates that popular websites exploit technology more often in order to expose users to products in which they might be interested.

The recently viewed product functionality did not feature much, possibly because it is not viewed as being vital. Also, customer comments were not invited as much. They were more evident in the electronic sector, possibly because clothing and health comments could be more subjective since these include individual taste. Comments about electronics would be more functionality and performance based.

A search functionality is included in 87 percent of popular websites, while 70 percent of clothing sector websites contain this function, the health sector records 90 percent, and all electronic sector websites possess it.

6.7. Website classification

It is possible to classify a website either into a sector or in terms of popularity based upon certain design parameters by making use of a classification tree. From the results analysed it is possible to generalize the different popularity level websites as follows.

Table 18 - Classifying a website against popularity

Design Parameter	High Popularity	Medium Popularity	Low Popularity
GIF	>38	>15; <=38	<=15
Number of animated GIFs	0		
Page width		<=980	
Number of Associated		<=8	<=4

Links			
Maximum image width			>243

Table 19 illustrates the generalization of websites according to different sector groups. It was found that the health sector cannot be classified according to the CHAID statistical test.

Table 19 - Classifying a website against sector

Design Parameter	Clothing	Electronic
Number of paragraph words	<=102	>102
Minimum image height		<=30
Coloured text		Yes

6.8. Suggestions for further research

Only three sectors were considered in the present study; thus other sectors could be researched and compared to the results in this dissertation. The current researcher considered the design parameters as characteristics of popular websites, or characteristics of a website belonging to a particular sector. Further research could be conducted in order to ascertain whether these design parameters cause this popularity, either within a sector or within all e-commerce websites.

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Appendix A- List of Sampled Websites

Rating	Category	Company Name & URL	Description
High	Clothing	Victoria's Secret www.victoriassecret.com	Offers a selection and variety of intimate items.
High	Clothing	Zappos www.zappos.com	Featuring dress, casual and athletic shoes for men and women.
High	Clothing	Gap, Inc. www.gap.com	Shop for men's, women's, and children's fashion.
High	Clothing	Old Navy www.oldnavy.com	Casual clothing for men, women and children.
High	Clothing	American Eagle Outfitters www.ae.com	Offers casual clothing for men and women.
High	Clothing	Abercrombie and Fitch www.abercrombie.com	Men, women and children's clothing accessories.
High	Clothing	Wicked Weasel Bikinis wickedweasel.com	Tiny bikini specialists
High	Clothing	Bluefly www.bluefly.com	Designer apparel, accessories and footwear for men and women.
High	Clothing	Forever 21 www.forever21.com	Trendy clothing retailer, with online sales and store locator. Ships in USA
High	Clothing	ELUXURY www.eluxury.com	Luxury clothing and accessories, jewelry, perfumes and cosmetics
Medium	Clothing	S and K Menswear www.skmenswear.com	Men's clothing from famous designers and brands.
Medium	Clothing	Whenshop Fashion www.whenshopfashion.com	Selling Japan and Korea clothes such as T-shirts, cardigans, short sleeve and accessories.

Rating	Category	Company Name & URL	Description
Medium	Clothing	Hollywood Studios Costumes www.hollywood-costumes.com	Large selection of assorted costumes.
Medium	Clothing	Wyzman www.wyzman.com	Men's fashion underwear and swimwear.
Medium	Clothing	ETuxedo.com etuxedo.com	Featuring tuxedos and men's formal wear.
Medium	Clothing	Dance 4 Less www.dance4less.com	Offers dancewear, dance shoes, swimsuits, and leotards.
Medium	Clothing	Bargain children's clothing. www.bargainchildrensclothing.com	Brand name apparel and accessories in sizes newborn thru 16.
Medium	Clothing	Brigitewear thong swimwear www.brigite.com	Sexy designer swimwear for women and men specializing in thong swimwear, sheer bathing suits, topless swimsuits and G-string bikinis.
Medium	Clothing	Ostriche.com Inc. www.ostrich.com	Features a selection of feathers, boas, fringe, fans and theatrical and costume accessories available.
Medium	Clothing	Know Knockers www.knowknockers.co.uk	Specializes in lingerie for the smaller woman. Based in the UK.
Medium	Clothing	Cotton Island www.cottonisland.com	Sells jeans, tees, and other casual trendy clothing and accessories. Designer brands.
Low	Clothing	Curbside Couture www.curbside-couture.com	Offering a unique variety of vintage belts and buckles from the 20's to today, including leather, plastic, vinyl, rhinestone-studded, funky and fun.
Low	Clothing	Enchanted Dreams www.enchanted-dreams.com	Sexy lingerie, clubwear and high heel shoes for men and women.
Low	Clothing	Tuxx www.tuxx.com	Men's name brand formal wear including jackets, pants and shoes.
Low	Clothing	The Rugged Bear www.ruggedbear-online.com	Children's outdoor clothing, sportswear, accessories and camping equipment.

Rating	Category	Company Name & URL	Description
Low	Clothing	Mystique Asia Inc. www.mystiqueasia.net	Offering salwar kameez, sarees, men's and children's wear.
Low	Clothing	Everything Birkenstock www.everythingbirkenstock.com	Offering sandals, clogs, and shoes for men, women, and children.
Low	Clothing	Sun Precautions www.sunprecautions.com	Solumbra 30+ SPF sun protective clothing for men, women and children.
Low	Clothing	Rez Dog Clothing Company www.rezdog.com	Indian owned and operated business offering contemporary apparel with modern Native American themes and logos.
Low	Clothing	Nala and Company www.hipundies.com	Lingerie, loungewear and pajamas from Nick & Nora, Bedhead, The Cat's Pajamas, Eberjey, and Cosabella.
High	Consumer Electronics	Best Buy www.bestbuy.com	Online presence of the home electronics retailer.
High	Consumer Electronics	NewEgg.com www.newegg.com	Online computer parts, peripherals, accessories, and components.
High	Consumer Electronics	Circuit City www.circuitcity.com	Retailer of consumer electronics, appliances and PCs.
High	Consumer Electronics	Sony.com www.sony.com	Features information about Sony's products, along with music, video game, and movie information.
High	Consumer Electronics	Pixmania www.pixmania.com	Sells digital cameras, camcorders, DVD players, TVs, hi-fi, scanners and printers.
High	Consumer Electronics	Future Shop Canada www.futureshop.ca	A wide range of name brand consumer electronics products
High	Consumer Electronics	Sirius Satellite Radio www.sirius.com	Offer satellite radio streams.
High	Consumer Electronics	GetJar www.getjar.com	Directory and download service of mobile Java games and applications by independent developers.
High	Consumer Electronics	Radio Shack www.radioshack.com	Searchable online catalog with more than 20,000 electronics products.

Rating	Category	Company Name & URL	Description
High	Consumer Electronics	J&R www.jr.com	Sells mass market audio, video, computers and digital cameras.
Medium	Consumer Electronics	101cells.com www.101cells.com	Wireless accessories for Nokia, Motorola, Samsung and Audiovox.
Medium	Consumer Electronics	SaveAndReplay www.saveandreplay.com	Sell FTA receivers and accessories. Distributor of Coolsat, Viewsat, and Pansat plans.
Medium	Consumer Electronics	Ultimate Electronics Online www.ultimate-electronics.co.uk	Offers battery packs for computers, cellular phones, and home audio and video products.
Medium	Consumer Electronics	IKaput ikaput.com	Specializes in iPod repairs and parts.
Medium	Consumer Electronics	SkypeStyle www.skypestyle.com	Specializes in selling Internet telephones such as Skype, VoIP and USB phones.
Medium	Consumer Electronics	ExpertGPS Mapping Software www.expertgps.com	GPS mapping software for Windows with USGS topo maps and aerial photos. Works with Garmin, Magellan and Lowrance GPS systems.
Medium	Consumer Electronics	Remote Support, Inc. www.remotes.com	Factory original replacement remote controls for RCA, Sony, Toshiba or Mitsubishi for TV, VCR, DVD, stereo and home theater.
Medium	Consumer Electronics	WirelessBuy.com www.wirelessbuy.com	Offer a range of PDAs such as Blackberry and Sidekick.
Medium	Consumer Electronics	Battery Price www.batteryprice.com	Batteries for camcorders, digital cameras, laptop computers, two-way radios, alarm systems, power tools, and personal electronics.
Medium	Consumer Electronics	Amateur Electronic Supply www.aesham.com	Amateur radio equipment dealer. Product comparisons, downloadable catalog, propagation forecast, mailing list, and links.
Low	Consumer Electronics	Home Theater 2u store.hometheater2u.com	Factory direct high-end home theater speakers, stereo speakers, subwoofers, digital amplifiers, DLP projectors and accessories with wireless solutions.
Low	Consumer Electronics	Fixer.com www.fixer.com	Offers accessories, VCR repair instruction, service manual, and common failures by model.

Rating	Category	Company Name & URL	Description
Low	Consumer Electronics	AccessoryJack www.accessoryjack.com	Offers stylish gadgets and accessories such as portable audio, headphones, game consoles and consumer electronics.
Low	Consumer Electronics	Radio Electric Supply www.vacuumtubes.net	New and new old stock vacuum tubes for sale, plus a list of tubes they want to buy.
Low	Consumer Electronics	Home Phones Online www.homephonesonline.co.uk	Offers home phones, walkie talkies and answering machines.
Low	Consumer Electronics	CBC International CB Radio www.cbcintl.com	Books, plans, and kits just for CB radio. Repairs, modifications, 10-Meter conversions, amplifiers, FM, unique high-performance accessories.
Low	Consumer Electronics	Projectisle www.projectisle.com.au	Australia's retailer of projectors and screens for home cinema and business presentation.
Low	Consumer Electronics	Power SuperSite Inc. www.powersupersite.com	Sells power supply systems and battery kits. Provides FAQ, glossary and information.
Low	Consumer Electronics	DCW Antique Replica Store www.dcwstore.com	We have Authentic Replicas of Antique Radios and Phonographs, Old Jukeboxes, Vintage Style Telephones and Clocks.
Low	Consumer Electronics	Japan-direct www.japan-direct.com	Offers DVD to VHS copy decoders, underwater video cases, and digital cameras from Japan.
High	Health	BodyBuilding.com www.bodybuilding.com	Offers supplements, nutrition, vitamins, creatine, plus information about bodybuilding. Broad assortment of manufacturers and product.
High	Health	Drugstore.com www.drugstore.com	A drugstore with a world of products and the expertise to help you find what you need. Health, beauty, wellness, personal care and pharmacy.
High	Health	Walgreens www.walgreens.com	Drug store chain. Features online buying facilities, career opportunities, company news, and investor information.
High	Health	Sephora.com www.sephora.com	Sells name brand and designer cosmetics and fragrances
High	Health	Strawberrynet www.strawberrynet.com	Brand name skincare, makeup, fragrance, cosmetics and perfume.
High	Health	EDiets.Com www.ediets.com	Personally designed diet plans, support and articles

Rating	Category	Company Name & URL	Description
High	Health	CVS Pharmacy www.cvs.com	Online version of the retail chain. Prescriptions, health, personal care, and gift items available online.
High	Health	Bath & Body Works www.bathandbodyworks.com	Home fragrance, facial skin care, cosmetics, sun care, body care, hair care, bath products and aromatherapy.
High	Health	Sasa.com websun01.sasa.com	Variety of cosmetics, skin care, and fragrances.
High	Health	GNC - About Us www.gnc.com	Offers vitamins and minerals, herbal supplements, health and beauty items, and weight loss products.
Medium	Health	Vitaglo.com vitaglo.com	Vitamins, supplements, Juicers.
Medium	Health	Stress Less www.stressless.com	Lists many products and services to help individuals cope with various forms of stress.
Medium	Health	Techmedica Health, Inc. www.techmedica.com	Proprietary blends for specific ailments including diabetes, gout, high blood pressure, and weight loss.
Medium	Health	Therapeutic Enzyme Formulations www.enzymedica.com	Enzymedica enzymes contains the highest active units of therapeutic enzymes.
Medium	Health	Springboard www.springboard4health.com	Supplements and alternative therapies for general nutrition hormone balancing, cancer therapy, and immune boosting.
Medium	Health	Cellande Midlands www.cellande.co.uk	Cleanser, foot scrub, liquid soap, and furniture.
Medium	Health	SpeedyHealth.com www.speedyhealth.com	A United Kingdom based online pharmacy serving United States patients with prescription products.
Medium	Health	Valentine Perfume LLC www.valentineperfume.com	Specializing in designer fragrances for women, as well as men. Also offering bath and body items and gift sets.
Medium	Health	Tinnitus Hypnosis www.hypnosishealthcare.com	Hypnosis CDs and Relaxing Music all with money back guarantees.
Medium	Health	Jeannie s Soaps jeanniessoaps.com	Jeannie s Soaps specialises in vegan, herbal, artistic soaps and skin care products.

Rating	Category	Company Name & URL	Description
Low	Health	Hawaiian Bath and Body hawaiianbathbody.com	Offer soap, body wash, essential oils and skin care products.
Low	Health	Hair by Mail www.hairbymail.com	Specializing in a variety of styles for women.
Low	Health	Physicians Select Herbal Supplements www.physiciansselect.com	Herbal supplements for weight loss supplements, libido, anti-aging, and menopause. Includes a newsletter.
Low	Health	Anahata Balance www.anahatabalance.com	Providing holistic information, daily lifestyle practices, and products to aid in your health and wellbeing in a holistic manner.
Low	Health	Bella Lucce www.bellalucce.com	Skin care products including soap, lotion and face masks.
Low	Health	BachFlower.com www.bachflower.com	Flower essences and instruction book.
Low	Health	Carolyn H Cleaves www.carolynsfacialfitness.com	A program for facial exercises that eliminates wrinkles.
Low	Health	Motherlove Herbals www.motherlove.com	Herbal products, tinctures, teas and oils for use during pregnancy, childbirth and breastfeeding.
Low	Health	BeyondMuscle.com beyondmuscle.com	Offering a selection of vitamins and supplements. Forums, articles and contacts.
Low	Health	Body and Soul Elements www.bodysoulelements.com	Handmade lotions, sprays, oils, and hair care products. Also offers candles.

Appendix B- Min, max, mean, std deviation

Popularity	Design Parameter	N	Min	Max	Mean	Std. Deviation
Low	Heading 1 weight	30	0	1	.77	.430
	Heading 2 weight	26	0	2	.85	.464
	Heading 3 weight	9	0	1	.67	.500
	Number of Headings	30	1	3	2.20	.664
	Heading 1 font size	30	12	40	17.07	5.349
	Heading 2 font size	26	10	30	14.19	4.499
	Heading 3 font size	10	11	24	14.20	3.676
	Paragraph font size	29	10	20	12.59	2.062
	Paragraph line length	30	2	21	12.80	5.726
	Amount of Heading 1 words	30	1	32	7.43	6.569
	Amount of Heading 2 words	24	1	65	12.71	14.968
	Amount of Heading 3 words	8	2	12	6.63	3.462
	Amount of Paragraph words	30	8	505	173.80	144.250
	Amount of text links	30	1	85	35.47	23.786
	Amount of Graphic links	30	1	56	11.87	12.219
	Amount of Structural Links	30	1	94	34.00	21.686
	Amount of Associative links	30	1	44	7.13	8.947
	Amount of ‘See Also’ Links	30	0	62	7.03	11.254
	Number of Graphical Elements	30	6	93	25.50	20.321
	Percentage of Graphics on Page	30	4	47	18.02	10.707

Popularity	Design Parameter	N	Min	Max	Mean	Std. Deviation
	Area					
	Amount of Static	30	1	48	13.73	12.031
	Amount of Animated	30	0	4	.37	.850
	Amount of Links	30	1	56	11.47	11.407
	JPEG	30	0	52	8.57	11.670
	GIF	30	0	61	16.37	15.486
	BMP	30	0	0	.00	.000
	PNG	30	0	13	.50	2.374
	TIFF	30	0	0	.00	.000
	Other	30	0	1	.07	.254
	Minimum width	30	1	87	18.00	29.459
	Minimum height	30	1	118	15.83	28.525
	Maximum width	30	125	1004	449.03	259.834
	Maximum height	30	54	600	256.60	166.929
	Page Length	30	647	8077	1815.77	1527.975
	Page width	30	560	1108	917.67	129.306
Medium	Heading 1 weight	29	0	1	.72	.455
	Heading 2 weight	17	0	1	.65	.493
	Heading 3 weight	5	0	1	.80	.447
	Number of Headings	30	1	3	1.73	.740
	Heading 1 font size	29	11	40	18.10	6.218
	Heading 2 font size	17	10	24	14.53	3.693

Popularity	Design Parameter	N	Min	Max	Mean	Std. Deviation
	Heading 3 font size	5	11	20	13.80	3.633
	Paragraph font size	29	10	17	12.55	1.723
	Paragraph line length	29	3	25	12.00	5.806
	Amount of Heading 1 words	29	0	155	11.21	28.050
	Amount of Heading 2 words	17	0	30	12.88	9.232
	Amount of Heading 3 words	5	4	12	8.40	4.037
	Amount of Paragraph words	29	16	1011	278.79	269.063
	Amount of text links	30	0	94	37.17	28.058
	Amount of Graphic links	30	0	72	18.03	17.450
	Amount of Structural Links	30	4	101	39.50	26.858
	Amount of Associative links	30	1	68	9.53	13.408
	Amount of ‘See Also’ Links	30	0	18	6.60	5.282
	Number of Graphical Elements	30	1	56	26.00	13.721
	Percentage of Graphics on Page Area	30	1	44	18.02	10.301
	Amount of Static	30	0	42	13.00	11.677
	Amount of Animated	30	0	8	.50	1.526
	Amount of Links	30	0	37	13.00	10.034
	JPEG	30	0	29	5.60	5.969
	GIF	30	0	46	18.97	14.397
	BMP	30	0	0	.00	.000
	PNG	30	0	30	1.40	5.556

Popularity	Design Parameter	N	Min	Max	Mean	Std. Deviation
	TIFF	30	0	0	.00	.000
	Other	30	0	1	.07	.254
	Minimum width	30	0	121	19.97	32.742
	Minimum height	30	0	100	13.00	21.189
	Maximum width	30	81	1000	370.00	232.259
	Maximum height	30	29	504	217.80	122.924
	Page Length	30	570	5960	1850.23	1147.100
	Page width	30	635	1020	827.77	117.002
High	Heading 1 weight	30	0	4	.93	.944
	Heading 2 weight	29	0	1	.76	.435
	Heading 3 weight	19	0	1	.79	.419
	Number of Headings	30	1	3	2.57	.626
	Heading 1 font size	30	11	34	17.57	5.746
	Heading 2 font size	28	10	24	14.50	3.657
	Heading 3 font size	19	10	18	13.16	2.609
	Paragraph font size	30	10	18	12.03	2.025
	Paragraph line length	30	3	22	10.93	4.370
	Amount of Heading 1 words	30	0	32	7.40	6.745
	Amount of Heading 2 words	27	0	19	7.41	6.122
	Amount of Heading 3 words	19	0	79	14.89	19.983
	Amount of Paragraph words	30	8	19973	949.83	3607.906
	Amount of text links	30	2	113	49.00	27.283

Popularity	Design Parameter	N	Min	Max	Mean	Std. Deviation
	Amount of Graphic links	30	1	113	33.27	21.104
	Amount of Structural Links	30	11	147	49.17	26.893
	Amount of Associative links	30	1	93	17.70	19.903
	Amount of ‘See Also’ Links	30	0	46	14.07	12.323
	Number of Graphical Elements	30	8	116	52.63	22.059
	Percentage of Graphics on Page Area	30	0	40	17.01	10.975
	Amount of Static	30	6	63	33.87	16.368
	Amount of Animated	30	0	2	.23	.568
	Amount of Links	30	1	113	30.27	19.633
	JPEG	30	0	23	5.87	5.964
	GIF	30	1	80	44.63	19.164
	BMP	30	0	0	.00	.000
	PNG	30	0	34	1.80	6.625
	TIFF	30	0	0	.00	.000
	Other	30	0	1	.47	.507
	Minimum width	30	1	7	1.27	1.112
	Minimum height	30	1	7	1.27	1.112
	Maximum width	30	173	820	463.50	226.586
	Maximum height	30	34	576	240.17	137.739
	Page Length	30	650	41037	3036.10	7229.479
	Page width	30	730	1024	830.27	101.298

Table 1 - Descriptive statistics for sector

Sector Number	Design Parameter	N	Min	Max	Mean	Std. Deviation
Clothing	Heading 1 weight	30	0	1	.80	.407
	Heading 2 weight	24	0	1	.79	.415
	Heading 3 weight	7	0	1	.86	.378
	Number of Headings	30	1	3	2.07	.691
	Heading 1 font size	30	11	24	16.27	3.051
	Heading 2 font size	24	10	24	12.58	2.796
	Heading 3 font size	8	10	14	12.00	1.309
	Paragraph font size	30	10	20	12.07	2.067
	Paragraph line length	30	3	25	9.70	5.559
	Amount of Heading 1 words	30	0	32	7.03	7.337
	Amount of Heading 2 words	23	0	30	7.70	6.990
	Amount of Heading 3 words	7	0	12	6.00	4.509
	Amount of Paragraph words	30	8	688	113.53	143.647
	Amount of text links	30	1	94	41.40	24.890
	Amount of Graphic links	30	2	53	19.63	12.414
	Amount of Structural Links	30	1	94	44.30	22.419
	Amount of Associative links	30	1	34	8.90	8.397
	Amount of ‘See Also’ Links	30	0	22	6.90	5.628
	Number of Graphical Elements	30	6	72	31.77	17.186
	Percentage of Graphics on	30	4	43	22.84	9.807

Sector Number	Design Parameter	N	Min	Max	Mean	Std. Deviation
	Page Area					
	Amount of Static	30	0	63	19.70	18.952
	Amount of Animated	30	0	8	.47	1.525
	Amount of Links	30	2	45	18.07	11.212
	JPEG	30	0	29	6.50	7.445
	GIF	30	0	63	24.90	18.237
	BMP	30	0	0	.00	.000
	PNG	30	0	4	.23	.898
	TIFF	30	0	0	.00	.000
	Other	30	0	1	.13	.346
	Minimum width	30	1	121	16.20	31.251
	Minimum height	30	1	100	12.40	22.541
	Maximum width	30	161	1004	414.83	208.423
	Maximum height	30	34	600	291.67	148.300
	Page Length	30	603	8077	1778.37	1658.347
	Page width	30	635	1060	840.40	120.784
Health	Heading 1 weight	30	0	4	.83	.986
	Heading 2 weight	25	0	2	.76	.523
	Heading 3 weight	16	0	1	.63	.500
	Number of Headings	30	1	3	2.33	.802
	Heading 1 font size	30	11	40	18.63	6.371
	Heading 2 font size	24	10	30	15.58	4.481

Sector Number	Design Parameter	N	Min	Max	Mean	Std. Deviation
	Heading 3 font size	16	11	24	14.56	3.723
	Paragraph font size	29	10	16	12.83	1.794
	Paragraph line length	30	2	23	13.37	5.136
	Amount of Heading 1 words	30	0	32	6.67	6.728
	Amount of Heading 2 words	22	0	65	11.45	15.862
	Amount of Heading 3 words	14	0	37	9.64	9.803
	Amount of Paragraph words	30	10	800	259.57	224.441
	Amount of text links	30	2	101	31.23	24.312
	Amount of Graphic links	30	0	69	20.37	20.006
	Amount of Structural Links	30	1	147	37.27	29.072
	Amount of Associative links	30	1	44	8.40	11.367
	Amount of ‘See Also’ Links	30	0	26	6.87	6.241
	Number of Graphical Elements	30	3	68	30.20	18.951
	Percentage of Graphics on Page Area	30	1	47	16.00	10.263
	Amount of Static	30	3	49	18.50	15.129
	Amount of Animated	30	0	2	.20	.484
	Amount of Links	30	0	42	16.13	13.470
	JPEG	30	0	35	4.93	6.313
	GIF	30	0	66	23.50	20.411
	BMP	30	0	0	.00	.000
	PNG	30	0	30	1.67	5.938

Sector Number	Design Parameter	N	Min	Max	Mean	Std. Deviation
	TIFF	30	0	0	.00	.000
	Other	30	0	1	.13	.346
	Minimum width	30	1	87	12.90	25.982
	Minimum height	30	1	118	11.33	27.635
	Maximum width	30	81	940	462.07	253.309
	Maximum height	30	29	576	214.90	133.871
	Page Length	30	570	4784	1714.97	978.187
	Page width	30	560	1108	836.70	133.195
Electronics	Heading 1 weight	29	0	1	.79	.412
	Heading 2 weight	23	0	1	.74	.449
	Heading 3 weight	10	0	1	.90	.316
	Number of Headings	30	1	3	2.10	.759
	Heading 1 font size	29	11	40	17.83	6.949
	Heading 2 font size	23	10	24	15.04	3.831
	Heading 3 font size	10	11	18	13.20	2.300
	Paragraph font size	29	10	18	12.28	1.925
	Paragraph line length	29	3	22	12.69	4.676
	Amount of Heading 1 words	29	2	155	12.38	27.651
	Amount of Heading 2 words	23	2	27	12.83	7.626
	Amount of Heading 3 words	11	0	79	18.27	23.787
	Amount of Paragraph words	29	16	19973	1055.21	3652.745
	Amount of text links	30	0	113	49.00	28.893

Sector Number	Design Parameter	N	Min	Max	Mean	Std. Deviation
	Amount of Graphic links	30	1	113	23.17	24.263
	Amount of Structural Links	30	4	103	41.10	25.757
	Amount of Associative links	30	1	93	17.07	21.697
	Amount of ‘See Also’ Links	30	0	62	13.93	15.423
	Number of Graphical Elements	30	1	116	42.17	29.058
	Percentage of Graphics on Page Area	30	0	44	14.21	9.872
	Amount of Static	30	0	57	22.40	15.582
	Amount of Animated	30	0	4	.43	.898
	Amount of Links	30	1	113	20.53	22.903
	JPEG	30	0	52	8.60	10.520
	GIF	30	1	80	31.57	23.060
	BMP	30	0	0	.00	.000
	PNG	30	0	34	1.80	6.609
	TIFF	30	0	0	.00	.000
	Other	30	0	1	.33	.479
	Minimum width	30	0	88	10.13	22.109
	Minimum height	30	0	32	6.37	9.697
	Maximum width	30	125	1000	405.63	261.797
	Maximum height	30	40	566	208.00	135.484
	Page Length	30	892	41037	3208.77	7192.456
	Page width	30	745	1020	898.60	106.163

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
Clothing	Low	Heading 1 weight	10	0	1	.70	.483
		Heading 2 weight	9	0	1	.67	.500
		Heading 3 weight	2	0	1	.50	.707
		Number of Headings	10	1	3	2.10	.568
		Heading 1 font size	10	12	24	17.00	3.801
		Heading 2 font size	9	10	24	13.11	4.285
		Heading 3 font size	2	13	14	13.50	.707
		Paragraph font size	10	11	20	13.50	2.915
		Paragraph line length	10	3	18	9.60	4.835
		Amount of Heading 1 words	10	1	24	7.10	6.506
		Amount of Heading 2 words	9	4	24	8.56	6.227
		Amount of Heading 3 words	2	7	12	9.50	3.536
		Amount of Paragraph words	10	8	418	147.10	130.190
		Amount of text links	10	1	85	40.00	27.649
		Amount of Graphic links	10	2	33	14.30	11.402
		Amount of	10	1	94	39.80	27.079

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Structural Links					
		Amount of Associative links	10	1	28	8.00	8.014
		Amount of 'See Also' Links	10	1	19	6.50	5.603
		Number of Graphical Elements	10	9	36	20.00	9.911
		Percentage of Graphics on Page Area	10	4	43	17.06	10.510
		Amount of Static	10	1	21	7.50	5.701
		Amount of Animated	10	0	1	.20	.422
		Amount of Links	10	2	29	12.40	8.972
		JPEG	10	1	29	6.00	8.459
		GIF	10	0	33	13.90	11.249
		BMP	10	0	0	.00	.000
		PNG	10	0	0	.00	.000
		TIFF	10	0	0	.00	.000
		Other	10	0	1	.10	.316
		Minimum width	10	1	75	26.20	31.968
		Minimum height	10	1	100	25.60	31.525
		Maximum width	10	161	1004	449.80	268.500

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Maximum height	10	54	600	251.80	188.813
		Page Length	10	755	8077	2217.80	2279.476
		Page width	10	700	1060	921.50	128.561
		Valid N (listwise)	2				
	Medium	Heading 1 weight	10	0	1	.80	.422
		Heading 2 weight	6	1	1	1.00	.000
		Heading 3 weight	1	1	1	1.00	.
		Number of Headings	10	1	3	1.70	.675
		Heading 1 font size	10	13	22	16.30	2.751
		Heading 2 font size	6	11	14	12.50	1.225
		Heading 3 font size	1	12	12	12.00	.
		Paragraph font size	10	11	13	12.00	.667
		Paragraph line length	10	3	25	11.70	7.484
		Amount of Heading 1 words	10	1	24	8.30	6.165
		Amount of Heading 2 words	6	1	30	9.33	10.577
		Amount of Heading 3 words	1	4	4	4.00	.
		Amount of Paragraph words	10	22	688	145.90	203.993

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Amount of text links	10	15	94	45.90	25.549
		Amount of Graphic links	10	6	32	16.10	8.999
		Amount of Structural Links	10	18	87	46.80	23.612
		Amount of Associative links	10	2	34	10.00	9.832
		Amount of ‘See Also’ Links	10	1	18	6.20	4.803
		Number of Graphical Elements	10	6	56	28.50	15.211
		Percentage of Graphics on Page Area	10	10	36	23.17	7.650
		Amount of Static	10	0	42	14.40	14.269
		Amount of Animated	10	0	8	1.00	2.539
		Amount of Links	10	4	28	14.30	8.056
		JPEG	10	0	29	7.50	8.100
		GIF	10	0	46	20.60	16.695
		BMP	10	0	0	.00	.000
		PNG	10	0	4	.40	1.265
		TIFF	10	0	0	.00	.000

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Other	10	0	0	.00	.000
		Minimum width	10	1	121	21.40	41.559
		Minimum height	10	1	52	10.60	17.373
		Maximum width	10	170	625	337.90	151.887
		Maximum height	10	98	504	302.60	115.274
		Page Length	10	603	5960	2050.60	1615.282
		Page width	10	635	1000	826.00	126.464
		Valid N (listwise)	1				
	High	Heading 1 weight	10	0	1	.90	.316
		Heading 2 weight	9	0	1	.78	.441
		Heading 3 weight	4	1	1	1.00	.000
		Number of Headings	10	1	3	2.40	.699
		Heading 1 font size	10	11	20	15.50	2.593
		Heading 2 font size	9	11	16	12.11	1.616
		Heading 3 font size	5	10	13	11.40	1.140
		Paragraph font size	10	10	12	10.70	.675
		Paragraph line length	10	3	13	7.80	3.425
		Amount of Heading 1 words	10	0	32	5.70	9.452
		Amount of Heading 2 words	8	0	15	5.50	4.536

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Amount of Heading 3 words	4	0	10	4.75	4.992
		Amount of Paragraph words	10	8	86	47.60	26.078
		Amount of text links	10	2	78	38.30	23.315
		Amount of Graphic links	10	14	53	28.50	12.358
		Amount of Structural Links	10	22	68	46.30	17.173
		Amount of Associative links	10	1	29	8.70	8.001
		Amount of ‘See Also’ Links	10	0	22	8.00	6.749
		Number of Graphical Elements	10	19	72	46.80	14.328
		Percentage of Graphics on Page Area	10	16	40	28.30	8.400
		Amount of Static	10	6	63	37.20	19.606
		Amount of Animated	10	0	2	.20	.632
		Amount of Links	10	15	45	27.50	10.459
		JPEG	10	0	23	6.00	6.307

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		GIF	10	13	63	40.20	15.852
		BMP	10	0	0	.00	.000
		PNG	10	0	3	.30	.949
		TIFF	10	0	0	.00	.000
		Other	10	0	1	.30	.483
		Minimum width	10	1	1	1.00	.000
		Minimum height	10	1	1	1.00	.000
		Maximum width	10	194	737	456.80	186.870
		Maximum height	10	34	576	320.60	138.196
		Page Length	10	650	2100	1066.70	443.499
		Page width	10	730	870	773.70	44.786
		Valid N (listwise)	3				
Health	Low	Heading 1 weight	10	0	1	.80	.422
		Heading 2 weight	8	0	2	1.00	.535
		Heading 3 weight	4	0	1	.75	.500
		Number of Headings	10	1	3	2.30	.823
		Heading 1 font size	10	12	40	18.40	8.195
		Heading 2 font size	8	10	30	15.88	6.312
		Heading 3 font size	5	12	24	15.60	4.930
		Paragraph font size	9	10	15	12.67	1.323
		Paragraph line	10	2	20	14.70	6.183

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		length					
		Amount of Heading 1 words	10	1	32	7.00	9.117
		Amount of Heading 2 words	6	1	65	22.67	27.311
		Amount of Heading 3 words	3	2	11	6.33	4.509
		Amount of Paragraph words	10	10	505	158.80	155.877
		Amount of text links	10	2	81	25.50	22.426
		Amount of Graphic links	10	1	11	4.60	3.688
		Amount of Structural Links	10	1	45	23.10	12.600
		Amount of Associative links	10	1	44	6.40	13.268
		Amount of ‘See Also’ Links	10	1	7	3.10	2.470
		Number of Graphical Elements	10	8	35	15.80	8.135
		Percentage of Graphics on Page Area	10	4	47	18.99	12.596
		Amount of Static	10	3	24	10.10	5.915

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Amount of Animated	10	0	0	.00	.000
		Amount of Links	10	1	13	5.70	4.398
		JPEG	10	0	35	7.40	10.298
		GIF	10	0	15	7.00	5.735
		BMP	10	0	0	.00	.000
		PNG	10	0	13	1.30	4.111
		TIFF	10	0	0	.00	.000
		Other	10	0	1	.10	.316
		Minimum width	10	1	87	24.10	37.382
		Minimum height	10	1	118	16.40	36.555
		Maximum width	10	150	940	560.20	272.644
		Maximum height	10	100	576	255.20	158.886
		Page Length	10	647	4784	1649.50	1241.905
		Page width	10	560	1108	902.00	166.703
		Valid N (listwise)	3				
	Medium	Heading 1 weight	10	0	1	.60	.516
		Heading 2 weight	7	0	1	.71	.488
		Heading 3 weight	4	0	1	.75	.500
		Number of Headings	10	1	3	2.10	.876
		Heading 1 font size	10	14	24	18.70	3.529

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Heading 2 font size	7	10	20	14.71	3.094
		Heading 3 font size	4	11	20	14.25	4.031
		Paragraph font size	10	10	16	13.20	2.201
		Paragraph line length	10	6	23	13.00	5.637
		Amount of Heading 1 words	10	0	16	5.30	4.347
		Amount of Heading 2 words	7	0	18	10.14	5.460
		Amount of Heading 3 words	4	4	12	9.50	3.697
		Amount of Paragraph words	10	21	754	309.00	244.570
		Amount of text links	10	3	62	22.30	20.945
		Amount of Graphic links	10	0	69	22.30	21.040
		Amount of Structural Links	10	7	66	32.20	21.154
		Amount of Associative links	10	2	24	6.00	6.749
		Amount of ‘See Also’ Links	10	0	18	6.80	6.844
		Number of	10	3	50	28.00	14.150

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Graphical Elements					
		Percentage of Graphics on Page Area	10	1	31	15.83	9.770
		Amount of Static	10	3	31	11.40	10.585
		Amount of Animated	10	0	2	.30	.675
		Amount of Links	10	0	37	16.50	13.310
		JPEG	10	1	9	4.20	2.860
		GIF	10	0	43	20.00	15.195
		BMP	10	0	0	.00	.000
		PNG	10	0	30	3.70	9.429
		TIFF	10	0	0	.00	.000
		Other	10	0	1	.20	.422
		Minimum width	10	1	70	12.80	22.315
		Minimum height	10	1	100	15.80	31.133
		Maximum width	10	81	647	328.70	187.974
		Maximum height	10	29	387	195.40	123.642
		Page Length	10	570	2921	1641.70	917.007
		Page width	10	635	990	791.50	109.698
		Valid N (listwise)	4				
	High	Heading 1 weight	10	0	4	1.10	1.595
		Heading 2 weight	10	0	1	.60	.516

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Heading 3 weight	8	0	1	.50	.535
		Number of Headings	10	1	3	2.60	.699
		Heading 1 font size	10	11	32	18.80	7.146
		Heading 2 font size	9	11	24	16.00	3.841
		Heading 3 font size	7	11	18	14.00	3.000
		Paragraph font size	10	10	16	12.60	1.838
		Paragraph line length	10	6	18	12.40	3.438
		Amount of Heading 1 words	10	2	22	7.70	6.360
		Amount of Heading 2 words	9	0	14	5.00	5.408
		Amount of Heading 3 words	7	0	37	11.14	13.656
		Amount of Paragraph words	10	46	800	310.90	247.543
		Amount of text links	10	18	101	45.90	24.470
		Amount of Graphic links	10	1	61	34.20	18.450
		Amount of Structural Links	10	11	147	56.50	38.138
		Amount of	10	1	39	12.80	12.744

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Associative links					
		Amount of 'See Also' Links	10	3	26	10.70	6.360
		Number of Graphical Elements	10	8	68	46.80	18.677
		Percentage of Graphics on Page Area	10	3	30	13.16	8.149
		Amount of Static	10	8	49	34.00	13.752
		Amount of Animated	10	0	1	.30	.483
		Amount of Links	10	1	42	26.20	12.426
		JPEG	10	1	7	3.20	1.874
		GIF	10	7	66	43.50	17.834
		BMP	10	0	0	.00	.000
		PNG	10	0	0	.00	.000
		TIFF	10	0	0	.00	.000
		Other	10	0	1	.10	.316
		Minimum width	10	1	7	1.80	1.874
		Minimum height	10	1	7	1.80	1.874
		Maximum width	10	176	775	497.30	255.427
		Maximum height	10	48	435	194.10	120.444
		Page Length	10	1080	3300	1853.70	817.214

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Page width	10	750	1024	816.60	99.422
		Valid N (listwise)	7				
Electronics	Low	Heading 1 weight	10	0	1	.80	.422
		Heading 2 weight	9	0	1	.89	.333
		Heading 3 weight	3	0	1	.67	.577
		Number of Headings	10	1	3	2.20	.632
		Heading 1 font size	10	12	20	15.80	2.616
		Heading 2 font size	9	10	18	13.78	2.386
		Heading 3 font size	3	11	13	12.33	1.155
		Paragraph font size	10	10	13	11.60	1.075
		Paragraph line length	10	3	21	14.10	5.174
		Amount of Heading 1 words	10	2	14	8.20	3.553
		Amount of Heading 2 words	9	2	20	10.22	6.200
		Amount of Heading 3 words	3	4	7	5.00	1.732
		Amount of Paragraph words	10	45	497	215.50	151.086
		Amount of text links	10	16	80	40.90	19.740
		Amount of Graphic	10	1	56	16.70	15.692

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		links					
		Amount of Structural Links	10	13	85	39.10	20.615
		Amount of Associative links	10	3	13	7.00	4.028
		Amount of ‘See Also’ Links	10	0	62	11.50	18.192
		Number of Graphical Elements	10	6	93	40.70	27.773
		Percentage of Graphics on Page Area	10	6	38	18.02	9.911
		Amount of Static	10	3	48	23.60	15.262
		Amount of Animated	10	0	4	.90	1.287
		Amount of Links	10	1	56	16.30	15.986
		JPEG	10	3	52	12.30	15.392
		GIF	10	3	61	28.20	18.802
		BMP	10	0	0	.00	.000
		PNG	10	0	1	.20	.422
		TIFF	10	0	0	.00	.000
		Other	10	0	0	.00	.000
		Minimum width	10	1	19	3.70	5.813
		Minimum height	10	1	24	5.50	8.168

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Maximum width	10	125	772	337.10	208.480
		Maximum height	10	74	566	262.80	169.774
		Page Length	10	932	3375	1580.00	715.918
		Page width	10	760	1005	929.50	95.465
		Valid N (listwise)	3				
	Medium	Heading 1 weight	9	0	1	.78	.441
		Heading 2 weight	4	0	0	.00	.000
		Heading 3 weight	0				
		Number of Headings	10	1	2	1.40	.516
		Heading 1 font size	9	11	40	19.44	10.309
		Heading 2 font size	4	12	24	17.25	5.737
		Heading 3 font size	0				
		Paragraph font size	9	11	17	12.44	1.878
		Paragraph line length	9	5	19	11.22	4.147
		Amount of Heading 1 words	9	2	155	21.00	50.277
		Amount of Heading 2 words	4	15	27	23.00	5.416
		Amount of Heading 3 words	0				
		Amount of	9	16	1011	392.89	318.458

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		Paragraph words					
		Amount of text links	10	0	92	43.30	32.759
		Amount of Graphic links	10	1	72	15.70	20.667
		Amount of Structural Links	10	4	101	39.50	34.655
		Amount of Associative links	10	1	68	12.60	20.310
		Amount of ‘See Also’ Links	10	0	15	6.80	4.442
		Number of Graphical Elements	10	1	36	21.50	11.881
		Percentage of Graphics on Page Area	10	2	44	15.05	11.974
		Amount of Static	10	0	32	13.20	10.891
		Amount of Animated	10	0	1	.20	.422
		Amount of Links	10	1	20	8.20	6.426
		JPEG	10	0	16	5.10	5.877
		GIF	10	1	34	16.30	12.093
		BMP	10	0	0	.00	.000
		PNG	10	0	1	.10	.316

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		TIFF	10	0	0	.00	.000
		Other	10	0	0	.00	.000
		Minimum width	10	0	88	25.70	33.665
		Minimum height	10	0	32	12.60	12.660
		Maximum width	10	146	1000	443.40	326.175
		Maximum height	10	60	300	155.40	85.085
		Page Length	10	892	3393	1858.40	834.795
		Page width	10	745	1020	865.80	114.070
		Valid N (listwise)	0				
	High	Heading 1 weight	10	0	1	.80	.422
		Heading 2 weight	10	0	1	.90	.316
		Heading 3 weight	7	1	1	1.00	.000
		Number of Headings	10	2	3	2.70	.483
		Heading 1 font size	10	12	34	18.40	6.433
		Heading 2 font size	10	10	23	15.30	4.001
		Heading 3 font size	7	11	18	13.57	2.637
		Paragraph font size	10	10	18	12.80	2.530
		Paragraph line length	10	8	22	12.60	4.648
		Amount of Heading 1 words	10	5	15	8.80	3.360
		Amount of Heading	10	2	19	11.10	6.488

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		2 words					
		Amount of Heading 3 words	8	0	79	23.25	26.526
		Amount of Paragraph words	10	154	19973	2491.00	6155.037
		Amount of text links	10	22	113	62.80	30.110
		Amount of Graphic links	10	7	113	37.10	29.991
		Amount of Structural Links	10	27	103	44.70	22.136
		Amount of Associative links	10	7	93	31.60	26.809
		Amount of ‘See Also’ Links	10	0	46	23.50	15.841
		Number of Graphical Elements	10	18	116	64.30	28.052
		Percentage of Graphics on Page Area	10	0	19	9.57	5.624
		Amount of Static	10	10	57	30.40	16.249
		Amount of Animated	10	0	2	.20	.632
		Amount of Links	10	7	113	37.10	29.991

Sector Number	Usage Frequency		N	Min	Max	Mean	Std. Deviation
		JPEG	10	0	21	8.40	7.501
		GIF	10	1	80	50.20	23.588
		BMP	10	0	0	.00	.000
		PNG	10	0	34	5.10	11.060
		TIFF	10	0	0	.00	.000
		Other	10	1	1	1.00	.000
		Minimum width	10	1	1	1.00	.000
		Minimum height	10	1	1	1.00	.000
		Maximum width	10	173	820	436.40	251.264
		Maximum height	10	40	407	205.80	129.106
		Page Length	10	1590	41037	6187.90	12273.777
		Page width	10	750	1000	900.50	109.226
		Valid N (listwise)	7				

Appendix C- Frequency tables

Heading 1 typeface						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Arial**	14	46.7	46.7	46.7
		Verdana	11	36.7	36.7	83.3
		Tahoma	2	6.7	6.7	90.0
		Garamond	1	3.3	3.3	93.3
		Times New Roman	1	3.3	3.3	96.7
		Other	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**Arial**	13	43.3	44.8	44.8
		Verdana	10	33.3	34.5	79.3
		Sans serif	1	3.3	3.4	82.8
		Tahoma	2	6.7	6.9	89.7
		Times New Roman	2	6.7	6.9	96.6
		Other	1	3.3	3.4	100.0
		Total	29	96.7	100.0	
	Missing	**-1**	1	3.3		
	Total		30	100.0		
High	**Valid**	**Arial**	16	53.3	53.3	53.3

		Verdana	12	40.0	40.0	93.3
		Times New Roman	1	3.3	3.3	96.7
		Other	1	3.3	3.3	100.0
		Total	30	100.0	100.0	

Heading 2 typeface						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Arial**	8	26.7	30.8	30.8
		Verdana	13	43.3	50.0	80.8
		Tahoma	2	6.7	7.7	88.5
		Garamond	1	3.3	3.8	92.3
		Times New Roman	1	3.3	3.8	96.2
		Other	1	3.3	3.8	100.0
		Total	26	86.7	100.0	
	Missing	**-1**	4	13.3		
	Total		30	100.0		
Medium	**Valid**	**Arial**	9	30.0	52.9	52.9
		Verdana	6	20.0	35.3	88.2
		Tahoma	1	3.3	5.9	94.1
		Other	1	3.3	5.9	100.0

		Total	17	56.7	100.0	
	Missing	**-1**	13	43.3		
	Total		30	100.0		
High	**Valid**	**Arial**	15	50.0	53.6	53.6
		Verdana	12	40.0	42.9	96.4
		Other	1	3.3	3.6	100.0
		Total	28	93.3	100.0	
	Missing	**-1**	2	6.7		
	Total		30	100.0		

Heading 3 typeface						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Arial**	5	16.7	50.0	50.0
		Verdana	4	13.3	40.0	90.0
		Tahoma	1	3.3	10.0	100.0
		Total	10	33.3	100.0	
	Missing	**-1**	20	66.7		
	Total		30	100.0		
Medium	**Valid**	**Arial**	2	6.7	40.0	40.0
		Verdana	2	6.7	40.0	80.0
		Other	1	3.3	20.0	100.0
		Total	5	16.7	100.0	
	Missing	**-1**	25	83.3		

	Total		30	100.0		
High	**Valid**	**Arial**	13	43.3	61.9	61.9
		Verdana	7	23.3	33.3	95.2
		Other	1	3.3	4.8	100.0
		Total	21	70.0	100.0	
	Missing	**-1**	9	30.0		
	Total		30	100.0		

Paragraph typeface

Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Arial**	11	36.7	37.9	37.9
		Verdana	10	33.3	34.5	72.4
		Georgia	1	3.3	3.4	75.9
		Sans serif	1	3.3	3.4	79.3
		Tahoma	3	10.0	10.3	89.7
		Garamond	1	3.3	3.4	93.1
		Times New Roman	1	3.3	3.4	96.6
		Other	1	3.3	3.4	100.0
		Total	29	96.7	100.0	
	Missing	**-1**	1	3.3		
	Total		30	100.0		
Medium	**Valid**	**Arial**	13	43.3	44.8	44.8

		Verdana	10	33.3	34.5	79.3
		Sans serif	1	3.3	3.4	82.8
		Tahoma	2	6.7	6.9	89.7
		Times New Roman	1	3.3	3.4	93.1
		Other	2	6.7	6.9	100.0
		Total	29	96.7	100.0	
	Missing	**-1**	1	3.3		
	Total		30	100.0		
High	**Valid**	**Arial**	16	53.3	53.3	53.3
		Verdana	12	40.0	40.0	93.3
		Tahoma	1	3.3	3.3	96.7
		Other	1	3.3	3.3	100.0
		Total	30	100.0	100.0	

Underlined						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	30	100.0	100.0	100.0
High	**Valid**	**No**	28	93.3	93.3	93.3
		Yes	2	6.7	6.7	100.0

		Total	30	100.0	100.0	

Italics						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	30	100.0	100.0	100.0
Medium	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	24	80.0	80.0	80.0
		Yes	6	20.0	20.0	100.0
		Total	30	100.0	100.0	

Bold						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	13	43.3	43.3	43.3
		Yes	17	56.7	56.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	12	40.0	40.0	40.0
		Yes	18	60.0	60.0	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	18	60.0	60.0	60.0
		Yes	12	40.0	40.0	100.0
		Total	30	100.0	100.0	

Coloured Text						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	16	53.3	53.3	53.3
		Yes	14	46.7	46.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	17	56.7	56.7	56.7
		Yes	13	43.3	43.3	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	18	60.0	60.0	60.0
		Yes	12	40.0	40.0	100.0
		Total	30	100.0	100.0	

Capital Letters						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	28	93.3	93.3	93.3
		Yes	2	6.7	6.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	26	86.7	86.7	86.7
		Yes	4	13.3	13.3	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	24	80.0	80.0	80.0
		Yes	6	20.0	20.0	100.0

		Total	30	100.0	100.0	

Spacing						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	30	100.0	100.0	100.0
Medium	**Valid**	**No**	30	100.0	100.0	100.0
High	**Valid**	**No**	30	100.0	100.0	100.0

none						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	25	83.3	83.3	83.3
		Yes	5	16.7	16.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	22	73.3	73.3	73.3
		Yes	8	26.7	26.7	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	27	90.0	90.0	90.0
		Yes	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

Heading 1 Alignment:						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**

Low	**Valid**	**Left-Aligned**	23	76.7	76.7	76.7
		Centered	7	23.3	23.3	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**Left-Aligned**	21	70.0	72.4	72.4
		Justified	1	3.3	3.4	75.9
		Centered	7	23.3	24.1	100.0
		Total	29	96.7	100.0	
	Missing	**Missing**	1	3.3		
	Total		30	100.0		
High	**Valid**	**Left-Aligned**	27	90.0	90.0	90.0
		Centered	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

Heading 2 Alignment:						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Left-Aligned**	23	76.7	88.5	88.5
		Centered	3	10.0	11.5	100.0
		Total	26	86.7	100.0	
	Missing	**Missing**	4	13.3		
	Total		30	100.0		

Medium	**Valid**	**Left-Aligned**	15	50.0	88.2	88.2
		Justified	1	3.3	5.9	94.1
		Centered	1	3.3	5.9	100.0
		Total	17	56.7	100.0	
	Missing	**Missing**	13	43.3		
	Total		30	100.0		
High	**Valid**	**Left-Aligned**	27	90.0	96.4	96.4
		Centered	1	3.3	3.6	100.0
		Total	28	93.3	100.0	
	Missing	**Missing**	2	6.7		
	Total		30	100.0		

Heading 3 Alignment:						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Left-Aligned**	7	23.3	77.8	77.8
		Right-Aligned	1	3.3	11.1	88.9
		Centered	1	3.3	11.1	100.0
		Total	9	30.0	100.0	
	Missing	**Missing**	21	70.0		
	Total		30	100.0		

Medium	**Valid**	**Left-Aligned**	3	10.0	60.0	60.0
		Centered	2	6.7	40.0	100.0
		Total	5	16.7	100.0	
	Missing	**Missing**	25	83.3		
	Total		30	100.0		
High	**Valid**	**Left-Aligned**	17	56.7	89.5	89.5
		Centered	2	6.7	10.5	100.0
		Total	19	63.3	100.0	
	Missing	**Missing**	11	36.7		
	Total		30	100.0		

Paragraph Alignment:

Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent
Low	**Valid**	**Left-Aligned**	28	93.3	93.3	93.3
		Justified	1	3.3	3.3	96.7
		Centered	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**Left-Aligned**	24	80.0	82.8	82.8
		Justified	2	6.7	6.9	89.7
		Centered	3	10.0	10.3	100.0

		Total	29	96.7	100.0	
	Missing	**Missing**	1	3.3		
	Total		30	100.0		
High	**Valid**	**Left-Aligned**	30	100.0	100.0	100.0

Links underlined						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	15	50.0	50.0	50.0
		Yes	15	50.0	50.0	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	10	33.3	33.3	33.3
		Yes	20	66.7	66.7	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	14	46.7	46.7	46.7
		Yes	16	53.3	53.3	100.0
		Total	30	100.0	100.0	

Background colour						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**Black**	2	6.7	6.7	6.7
		White	18	60.0	60.0	66.7
		Blue	3	10.0	10.0	76.7

		Gray	2	6.7	6.7	83.3
		Yellow	1	3.3	3.3	86.7
		Pink	2	6.7	6.7	93.3
		Purple	1	3.3	3.3	96.7
		Brown	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**Black**	5	16.7	16.7	16.7
		White	17	56.7	56.7	73.3
		Blue	3	10.0	10.0	83.3
		Gray	2	6.7	6.7	90.0
		Yellow	2	6.7	6.7	96.7
		Green	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
High	**Valid**	**Black**	2	6.7	6.7	6.7
		White	15	50.0	50.0	56.7
		Blue	3	10.0	10.0	66.7
		Gray	9	30.0	30.0	96.7
		Pink	1	3.3	3.3	100.0
		Total	30	100.0	100.0	

Frames						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	29	96.7	96.7	96.7

		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	28	93.3	93.3	93.3
		Yes	2	6.7	6.7	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	30	100.0	100.0	100.0

Adaptable to screen resolution						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	19	63.3	63.3	63.3
		Yes	11	36.7	36.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	7	23.3	23.3	23.3
		Yes	23	76.7	76.7	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	13	43.3	43.3	43.3
		Yes	17	56.7	56.7	100.0
		Total	30	100.0	100.0	

Search						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	10	33.3	33.3	33.3
		Yes	20	66.7	66.7	100.0

		Total	30	100.0	100.0	
Medium	**Valid**	**No**	9	30.0	30.0	30.0
		Yes	21	70.0	70.0	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	4	13.3	13.3	13.3
		Yes	26	86.7	86.7	100.0
		Total	30	100.0	100.0	

Customer Comments						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	22	73.3	73.3	73.3
		Yes	8	26.7	26.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	23	76.7	76.7	76.7
		Yes	7	23.3	23.3	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	20	66.7	66.7	66.7
		Yes	10	33.3	33.3	100.0
		Total	30	100.0	100.0	

Cart						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	6	20.0	20.0	20.0

		Yes	24	80.0	80.0	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	6	20.0	20.0	20.0
		Yes	24	80.0	80.0	100.0
		Total	30	100.0	100.0	
High	**Valid**	**Yes**	30	100.0	100.0	100.0

Suggestion						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	19	63.3	63.3	63.3
		Yes	11	36.7	36.7	100.0
		Total	30	100.0	100.0	
Medium	**Valid**	**No**	18	60.0	60.0	60.0
		Yes	12	40.0	40.0	100.0
		Total	30	100.0	100.0	
High	**Valid**	**No**	6	20.0	20.0	20.0
		Yes	24	80.0	80.0	100.0
		Total	30	100.0	100.0	

recently viewed						
Usage Frequency			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0

		Total	30	100.0	100.0	
Medium	**Valid**	**No**	30	100.0	100.0	100.0
High	**Valid**	**No**	27	90.0	90.0	90.0
		Yes	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

1. Frequency Table

Heading 1 typeface						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Arial**	15	50.0	50.0	50.0
		Verdana	9	30.0	30.0	80.0
		Tahoma	1	3.3	3.3	83.3
		Garamond	1	3.3	3.3	86.7
		Times New Roman	2	6.7	6.7	93.3
		Other	2	6.7	6.7	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**Arial**	18	60.0	60.0	60.0
		Verdana	7	23.3	23.3	83.3
		Sans serif	1	3.3	3.3	86.7
		Tahoma	1	3.3	3.3	90.0
		Times New Roman	2	6.7	6.7	96.7

		Other	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**Arial**	10	33.3	34.5	34.5
		Verdana	17	56.7	58.6	93.1
		Tahoma	2	6.7	6.9	100.0
		Total	29	96.7	100.0	
	Missing	**-1**	1	3.3		
	Total		30	100.0		

Heading 2 typeface						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Arial**	10	33.3	41.7	41.7
		Verdana	10	33.3	41.7	83.3
		Garamond	1	3.3	4.2	87.5
		Times New Roman	1	3.3	4.2	91.7
		Other	2	6.7	8.3	100.0
		Total	24	80.0	100.0	
	Missing	**-1**	6	20.0		
	Total		30	100.0		
Health	**Valid**	**Arial**	13	43.3	54.2	54.2
		Verdana	9	30.0	37.5	91.7
		Tahoma	1	3.3	4.2	95.8

		Other	1	3.3	4.2	100.0
		Total	24	80.0	100.0	
	Missing	**-1**	6	20.0		
	Total		30	100.0		
Electronics	**Valid**	**Arial**	9	30.0	39.1	39.1
		Verdana	12	40.0	52.2	91.3
		Tahoma	2	6.7	8.7	100.0
		Total	23	76.7	100.0	
	Missing	**-1**	7	23.3		
	Total		30	100.0		

Heading 3 typeface						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Arial**	4	13.3	50.0	50.0
		Verdana	3	10.0	37.5	87.5
		Other	1	3.3	12.5	100.0
		Total	8	26.7	100.0	
	Missing	**-1**	22	73.3		
	Total		30	100.0		
Health	**Valid**	**Arial**	11	36.7	64.7	64.7
		Verdana	4	13.3	23.5	88.2
		Tahoma	1	3.3	5.9	94.1
		Other	1	3.3	5.9	100.0

		Total	17	56.7	100.0	
	Missing	**-1**	13	43.3		
	Total		30	100.0		
Electronics	**Valid**	**Arial**	5	16.7	45.5	45.5
		Verdana	6	20.0	54.5	100.0
		Total	11	36.7	100.0	
	Missing	**-1**	19	63.3		
	Total		30	100.0		

Paragraph typeface

Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Arial**	14	46.7	46.7	46.7
		Verdana	8	26.7	26.7	73.3
		Georgia	1	3.3	3.3	76.7
		Tahoma	1	3.3	3.3	80.0
		Garamond	1	3.3	3.3	83.3
		Times New Roman	2	6.7	6.7	90.0
		Other	3	10.0	10.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**Arial**	19	63.3	65.5	65.5
		Verdana	7	23.3	24.1	89.7
		Sans serif	1	3.3	3.4	93.1

		Tahoma	1	3.3	3.4	96.6
		Other	1	3.3	3.4	100.0
		Total	29	96.7	100.0	
	Missing	**-1**	1	3.3		
	Total		30	100.0		
Electronics	**Valid**	**Arial**	7	23.3	24.1	24.1
		Verdana	17	56.7	58.6	82.8
		Sans serif	1	3.3	3.4	86.2
		Tahoma	4	13.3	13.8	100.0
		Total	29	96.7	100.0	
	Missing	**-1**	1	3.3		
	Total		30	100.0		

Underlined

Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0

		Total	30	100.0	100.0	

Italics						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	27	90.0	90.0	90.0
		Yes	3	10.0	10.0	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	27	90.0	90.0	90.0
		Yes	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

Bold						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	15	50.0	50.0	50.0
		Yes	15	50.0	50.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	13	43.3	43.3	43.3
		Yes	17	56.7	56.7	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	15	50.0	50.0	50.0

		Yes	15	50.0	50.0	100.0
		Total	30	100.0	100.0	

Coloured Text						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	15	50.0	50.0	50.0
		Yes	15	50.0	50.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	26	86.7	86.7	86.7
		Yes	4	13.3	13.3	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	10	33.3	33.3	33.3
		Yes	20	66.7	66.7	100.0
		Total	30	100.0	100.0	

Capital Letters						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	24	80.0	80.0	80.0
		Yes	6	20.0	20.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	27	90.0	90.0	90.0
		Yes	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

Electronics	**Valid**	**No**	27	90.0	90.0	90.0
		Yes	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

Spacing						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	30	100.0	100.0	100.0
Health	**Valid**	**No**	30	100.0	100.0	100.0
Electronics	**Valid**	**No**	30	100.0	100.0	100.0

none						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	24	80.0	80.0	80.0
		Yes	6	20.0	20.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	24	80.0	80.0	80.0
		Yes	6	20.0	20.0	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	26	86.7	86.7	86.7
		Yes	4	13.3	13.3	100.0
		Total	30	100.0	100.0	

Heading 1 Alignment:						
Sector			**Frequency**	**Percent**	**Valid**	**Cumulative**

Number					Percent	Percent
Clothing	Valid	Left-Aligned	23	76.7	76.7	76.7
		Centered	7	23.3	23.3	100.0
		Total	30	100.0	100.0	
Health	Valid	Left-Aligned	24	80.0	80.0	80.0
		Centered	6	20.0	20.0	100.0
		Total	30	100.0	100.0	
Electronics	Valid	Left-Aligned	24	80.0	82.8	82.8
		Justified	1	3.3	3.4	86.2
		Centered	4	13.3	13.8	100.0
		Total	29	96.7	100.0	
	Missing	Missing	1	3.3		
	Total		30	100.0		

Heading 2 Alignment:						
Sector Number			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	Valid	Left-Aligned	21	70.0	87.5	87.5
		Centered	3	10.0	12.5	100.0
		Total	24	80.0	100.0	
	Missing	Missing	6	20.0		

	Total		30	100.0		
Health	**Valid**	**Left-Aligned**	23	76.7	95.8	95.8
		Centered	1	3.3	4.2	100.0
		Total	24	80.0	100.0	
	Missing	**Missing**	6	20.0		
	Total		30	100.0		
Electronics	**Valid**	**Left-Aligned**	21	70.0	91.3	91.3
		Justified	1	3.3	4.3	95.7
		Centered	1	3.3	4.3	100.0
		Total	23	76.7	100.0	
	Missing	**Missing**	7	23.3		
	Total		30	100.0		

Heading 3 Alignment:						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Left-Aligned**	7	23.3	87.5	87.5
		Centered	1	3.3	12.5	100.0
		Total	8	26.7	100.0	
	Missing	**Missing**	22	73.3		
	Total		30	100.0		
Health	**Valid**	**Left-**	12	40.0	75.0	75.0

		Aligned				
		Centered	4	13.3	25.0	100.0
		Total	16	53.3	100.0	
	Missing	**Missing**	14	46.7		
	Total		30	100.0		
Electronics	**Valid**	**Left-Aligned**	8	26.7	88.9	88.9
		Right-Aligned	1	3.3	11.1	100.0
		Total	9	30.0	100.0	
	Missing	**Missing**	21	70.0		
	Total		30	100.0		

Paragraph Alignment:						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Left-Aligned**	27	90.0	90.0	90.0
		Centered	3	10.0	10.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**Left-Aligned**	29	96.7	96.7	96.7
		Justified	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**Left-**	26	86.7	89.7	89.7

		Aligned				
		Justified	2	6.7	6.9	96.6
		Centered	1	3.3	3.4	100.0
		Total	29	96.7	100.0	
	Missing	**Missing**	1	3.3		
	Total		30	100.0		

Links underlined

Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	12	40.0	40.0	40.0
		Yes	18	60.0	60.0	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	10	33.3	33.3	33.3
		Yes	20	66.7	66.7	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	17	56.7	56.7	56.7
		Yes	13	43.3	43.3	100.0
		Total	30	100.0	100.0	

Background colour

Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**Black**	6	20.0	20.0	20.0
		White	12	40.0	40.0	60.0

		Blue	1	3.3	3.3	63.3
		Gray	6	20.0	20.0	83.3
		Yellow	2	6.7	6.7	90.0
		Pink	1	3.3	3.3	93.3
		Green	1	3.3	3.3	96.7
		Brown	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**Black**	2	6.7	6.7	6.7
		White	16	53.3	53.3	60.0
		Blue	4	13.3	13.3	73.3
		Gray	4	13.3	13.3	86.7
		Yellow	1	3.3	3.3	90.0
		Pink	2	6.7	6.7	96.7
		Purple	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**Black**	1	3.3	3.3	3.3
		White	22	73.3	73.3	76.7
		Blue	4	13.3	13.3	90.0
		Gray	3	10.0	10.0	100.0
		Total	30	100.0	100.0	

Frames						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**

Clothing	**Valid**	**No**	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	28	93.3	93.3	93.3
		Yes	2	6.7	6.7	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	30	100.0	100.0	100.0

Adaptable to screen resolution						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	17	56.7	56.7	56.7
		Yes	13	43.3	43.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	7	23.3	23.3	23.3
		Yes	23	76.7	76.7	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	15	50.0	50.0	50.0
		Yes	15	50.0	50.0	100.0
		Total	30	100.0	100.0	

Search						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	11	36.7	36.7	36.7

		Yes	19	63.3	63.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	9	30.0	30.0	30.0
		Yes	21	70.0	70.0	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	3	10.0	10.0	10.0
		Yes	27	90.0	90.0	100.0
		Total	30	100.0	100.0	

Customer Comments

Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	25	83.3	83.3	83.3
		Yes	5	16.7	16.7	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	23	76.7	76.7	76.7
		Yes	7	23.3	23.3	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	17	56.7	56.7	56.7
		Yes	13	43.3	43.3	100.0
		Total	30	100.0	100.0	

Cart

Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**

Clothing	**Valid**	**No**	5	16.7	16.7	16.7
		Yes	25	83.3	83.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	4	13.3	13.3	13.3
		Yes	26	86.7	86.7	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	3	10.0	10.0	10.0
		Yes	27	90.0	90.0	100.0
		Total	30	100.0	100.0	

Suggestion						
Sector Number			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Valid**	**No**	14	46.7	46.7	46.7
		Yes	16	53.3	53.3	100.0
		Total	30	100.0	100.0	
Health	**Valid**	**No**	15	50.0	50.0	50.0
		Yes	15	50.0	50.0	100.0
		Total	30	100.0	100.0	
Electronics	**Valid**	**No**	14	46.7	46.7	46.7
		Yes	16	53.3	53.3	100.0
		Total	30	100.0	100.0	

recently viewed

Sector Number			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	Valid	No	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Health	Valid	No	29	96.7	96.7	96.7
		Yes	1	3.3	3.3	100.0
		Total	30	100.0	100.0	
Electronics	Valid	No	28	93.3	93.3	93.3
		Yes	2	6.7	6.7	100.0
		Total	30	100.0	100.0	

2. Frequencies

3. Frequency Table

Heading 1 typeface							
Sector Number	Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	Low	Valid	Arial	3	30.0	30.0	30.0
			Verdana	4	40.0	40.0	70.0
			Garamond	1	10.0	10.0	80.0
			Times New Roman	1	10.0	10.0	90.0

			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Arial**	6	60.0	60.0	60.0
			Verdana	2	20.0	20.0	80.0
			Tahoma	1	10.0	10.0	90.0
			Times New Roman	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Arial**	6	60.0	60.0	60.0
			Verdana	3	30.0	30.0	90.0
			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**Arial**	7	70.0	70.0	70.0
			Verdana	2	20.0	20.0	90.0
			Tahoma	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Arial**	5	50.0	50.0	50.0
			Verdana	2	20.0	20.0	70.0
			Sans serif	1	10.0	10.0	80.0
			Times New Roman	1	10.0	10.0	90.0
			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	

	High	**Valid**	**Arial**	6	60.0	60.0	60.0
			Verdana	3	30.0	30.0	90.0
			Times New Roman	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**Arial**	4	40.0	40.0	40.0
			Verdana	5	50.0	50.0	90.0
			Tahoma	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Arial**	2	20.0	22.2	22.2
			Verdana	6	60.0	66.7	88.9
			Tahoma	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**-1**	1	10.0		
		Total		10	100.0		
	High	**Valid**	**Arial**	4	40.0	40.0	40.0
			Verdana	6	60.0	60.0	100.0
			Total	10	100.0	100.0	

Heading 2 typeface							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**

Clothing	**Low**	**Valid**	**Arial**	1	10.0	11.1	11.1
			Verdana	5	50.0	55.6	66.7
			Garamond	1	10.0	11.1	77.8
			Times New Roman	1	10.0	11.1	88.9
			Other	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**-1**	1	10.0		
		Total		10	100.0		
	Medium	**Valid**	**Arial**	4	40.0	66.7	66.7
			Verdana	2	20.0	33.3	100.0
			Total	6	60.0	100.0	
		Missing	**-1**	4	40.0		
		Total		10	100.0		
	High	**Valid**	**Arial**	5	50.0	55.6	55.6
			Verdana	3	30.0	33.3	88.9
			Other	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**-1**	1	10.0		
		Total		10	100.0		

Health	**Low**	**Valid**	**Arial**	4	40.0	50.0	50.0
			Verdana	3	30.0	37.5	87.5
			Tahoma	1	10.0	12.5	100.0
			Total	8	80.0	100.0	
		Missing	**-1**	2	20.0		
		Total		10	100.0		
	Medium	**Valid**	**Arial**	3	30.0	42.9	42.9
			Verdana	3	30.0	42.9	85.7
			Other	1	10.0	14.3	100.0
			Total	7	70.0	100.0	
		Missing	**-1**	3	30.0		
		Total		10	100.0		
	High	**Valid**	**Arial**	6	60.0	66.7	66.7
			Verdana	3	30.0	33.3	100.0
			Total	9	90.0	100.0	
		Missing	**-1**	1	10.0		
		Total		10	100.0		
Electronics	**Low**	**Valid**	**Arial**	3	30.0	33.3	33.3
			Verdana	5	50.0	55.6	88.9
			Tahoma	1	10.0	11.1	100.0
			Total	9	90.0	100.0	

		Missing	-1	1	10.0		
		Total		10	100.0		
	Medium	Valid	Arial	2	20.0	50.0	50.0
			Verdana	1	10.0	25.0	75.0
			Tahoma	1	10.0	25.0	100.0
			Total	4	40.0	100.0	
		Missing	-1	6	60.0		
		Total		10	100.0		
	High	Valid	Arial	4	40.0	40.0	40.0
			Verdana	6	60.0	60.0	100.0
			Total	10	100.0	100.0	

Heading 3 typeface							
Sector Number	Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	Low	Valid	Verdana	2	20.0	100.0	100.0
		Missing	-1	8	80.0		
		Total		10	100.0		
	Medium	Valid	Arial	1	10.0	100.0	100.0
		Missing	-1	9	90.0		

		Total		10	100.0		
	High	**Valid**	**Arial**	3	30.0	60.0	60.0
			Verdana	1	10.0	20.0	80.0
			Other	1	10.0	20.0	100.0
			Total	5	50.0	100.0	
		Missing	**-1**	5	50.0		
		Total		10	100.0		
Health	**Low**	**Valid**	**Arial**	4	40.0	80.0	80.0
			Tahoma	1	10.0	20.0	100.0
			Total	5	50.0	100.0	
		Missing	**-1**	5	50.0		
		Total		10	100.0		
	Medium	**Valid**	**Arial**	1	10.0	25.0	25.0
			Verdana	2	20.0	50.0	75.0
			Other	1	10.0	25.0	100.0
			Total	4	40.0	100.0	
		Missing	**-1**	6	60.0		
		Total		10	100.0		
	High	**Valid**	**Arial**	6	60.0	75.0	75.0
			Verdan	2	20.0	25.0	100.0

			a				
			Total	8	80.0	100.0	
		Missing	-1	2	20.0		
		Total		10	100.0		
Electronics	Low	Valid	Arial	1	10.0	33.3	33.3
			Verdana	2	20.0	66.7	100.0
			Total	3	30.0	100.0	
		Missing	-1	7	70.0		
		Total		10	100.0		
	Medium	Missing	-1	10	100.0		
	High	Valid	Arial	4	40.0	50.0	50.0
			Verdana	4	40.0	50.0	100.0
			Total	8	80.0	100.0	
		Missing	-1	2	20.0		
		Total		10	100.0		

Paragraph typeface							
Sector Number	Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent

Clothing	Low	Valid	Arial	3	30.0	30.0	30.0
			Verdana	3	30.0	30.0	60.0
			Georgia	1	10.0	10.0	70.0
			Garamond	1	10.0	10.0	80.0
			Times New Roman	1	10.0	10.0	90.0
			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	Valid	Arial	5	50.0	50.0	50.0
			Verdana	2	20.0	20.0	70.0
			Tahoma	1	10.0	10.0	80.0
			Times New Roman	1	10.0	10.0	90.0
			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	Valid	Arial	6	60.0	60.0	60.0
			Verdana	3	30.0	30.0	90.0
			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	Low	Valid	Arial	6	60.0	66.7	66.7
			Verdana	2	20.0	22.2	88.9
			Tahoma	1	10.0	11.1	100.0

			Total	9	90.0	100.0	
		Missing	**-1**	1	10.0		
		Total		10	100.0		
	Medium	**Valid**	**Arial**	6	60.0	60.0	60.0
			Verdana	2	20.0	20.0	80.0
			Sans serif	1	10.0	10.0	90.0
			Other	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Arial**	7	70.0	70.0	70.0
			Verdana	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**Arial**	2	20.0	20.0	20.0
			Verdana	5	50.0	50.0	70.0
			Sans serif	1	10.0	10.0	80.0
			Tahoma	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Arial**	2	20.0	22.2	22.2
			Verdana	6	60.0	66.7	88.9
			Tahoma	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**-1**	1	10.0		
		Total		10	100.0		

	High	**Valid**	**Arial**	3	30.0	30.0	30.0
			Verdana	6	60.0	60.0	90.0
			Tahoma	1	10.0	10.0	100.0
			Total	10	100.0	100.0	

Underlined

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	10	100.0	100.0	100.0

Italics							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	

Bold							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**

Clothing	**Low**	**Valid**	**No**	6	60.0	60.0	60.0
			Yes	4	40.0	40.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	5	50.0	50.0	50.0
			Yes	5	50.0	50.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	5	50.0	50.0	50.0
			Yes	5	50.0	50.0	100.0
			Total	10	100.0	100.0	

	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	

Coloured Text

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	2	20.0	20.0	20.0

			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	5	50.0	50.0	50.0
			Yes	5	50.0	50.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	

Capital Letters

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0

			Total	10	100.0	100.0	
	High	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	

Spacing

Sector Number	Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	10	100.0	100.0	100.0
Health	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	10	100.0	100.0	100.0
Electronics	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	10	100.0	100.0	100.0

none							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0

			Total	10	100.0	100.0	
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	

Heading 1 Alignment:

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**Left-Aligned**	8	80.0	80.0	80.0
			Centered	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Left-Aligned**	7	70.0	70.0	70.0
			Centered	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Left-Aligned**	8	80.0	80.0	80.0
			Centered	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**Left-Aligned**	8	80.0	80.0	80.0

			Centered	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Left-Aligned**	7	70.0	70.0	70.0
			Centered	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Left-Aligned**	9	90.0	90.0	90.0
			Centered	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**Left-Aligned**	7	70.0	70.0	70.0
			Centered	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Left-Aligned**	7	70.0	77.8	77.8
			Justified	1	10.0	11.1	88.9
			Centered	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**Missing**	1	10.0		

		Total		10	100.0		
	High	**Valid**	**Left-Aligned**	10	100.0	100.0	100.0

Heading 2 Alignment:							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**Left-Aligned**	7	70.0	77.8	77.8
			Centered	2	20.0	22.2	100.0
			Total	9	90.0	100.0	
		Missing	**Missing**	1	10.0		
		Total		10	100.0		
	Medium	**Valid**	**Left-Aligned**	5	50.0	83.3	83.3
			Centered	1	10.0	16.7	100.0
			Total	6	60.0	100.0	
		Missing	**Missing**	4	40.0		
		Total		10	100.0		
	High	**Valid**	**Left-Aligned**	9	90.0	100.0	100.0

		Missing	**Missing**	1	10.0		
		Total		10	100.0		
Health	**Low**	**Valid**	**Left-Aligned**	8	80.0	100.0	100.0
		Missing	**Missing**	2	20.0		
		Total		10	100.0		
	Medium	**Valid**	**Left-Aligned**	7	70.0	100.0	100.0
		Missing	**Missing**	3	30.0		
		Total		10	100.0		
	High	**Valid**	**Left-Aligned**	8	80.0	88.9	88.9
			Centered	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**Missing**	1	10.0		
		Total		10	100.0		
Electronics	**Low**	**Valid**	**Left-Aligned**	8	80.0	88.9	88.9
			Centered	1	10.0	11.1	100.0
			Total	9	90.0	100.0	

		Missing	Missing	1	10.0		
		Total		10	100.0		
	Medium	Valid	Left-Aligned	3	30.0	75.0	75.0
			Justified	1	10.0	25.0	100.0
			Total	4	40.0	100.0	
		Missing	Missing	6	60.0		
		Total		10	100.0		
	High	Valid	Left-Aligned	10	100.0	100.0	100.0

Heading 3 Alignment:

Sector Number	Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	Low	Valid	Left-Aligned	2	20.0	100.0	100.0
		Missing	Missing	8	80.0		
		Total		10	100.0		
	Medium	Valid	Left-Aligned	1	10.0	100.0	100.0
		Missing	Missing	9	90.0		

		Total		10	100.0		
	High	**Valid**	**Left-Aligned**	4	40.0	80.0	80.0
			Centered	1	10.0	20.0	100.0
			Total	5	50.0	100.0	
		Missing	**Missing**	5	50.0		
		Total		10	100.0		
Health	**Low**	**Valid**	**Left-Aligned**	4	40.0	80.0	80.0
			Centered	1	10.0	20.0	100.0
			Total	5	50.0	100.0	
		Missing	**Missing**	5	50.0		
		Total		10	100.0		
	Medium	**Valid**	**Left-Aligned**	2	20.0	50.0	50.0
			Centered	2	20.0	50.0	100.0
			Total	4	40.0	100.0	
		Missing	**Missing**	6	60.0		
		Total		10	100.0		
	High	**Valid**	**Left-**	6	60.0	85.7	85.7

			Aligned				
			Centered	1	10.0	14.3	100.0
			Total	7	70.0	100.0	
		Missing	Missing	3	30.0		
		Total		10	100.0		
Electronics	Low	Valid	Left-Aligned	1	10.0	50.0	50.0
			Right-Aligned	1	10.0	50.0	100.0
			Total	2	20.0	100.0	
		Missing	Missing	8	80.0		
		Total		10	100.0		
	Medium	Missing	Missing	10	100.0		
	High	Valid	Left-Aligned	7	70.0	100.0	100.0
		Missing	Missing	3	30.0		
		Total		10	100.0		

Paragraph Alignment:							
Sector Number	Usage Frequenc			Frequency	Percent	Valid Percen	Cumulative Percent

	y					t	
Clothing	Low	Valid	Left-Aligned	9	90.0	90.0	90.0
			Centered	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	Valid	Left-Aligned	8	80.0	80.0	80.0
			Centered	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	Valid	Left-Aligned	10	100.0	100.0	100.0
Health	Low	Valid	Left-Aligned	10	100.0	100.0	100.0
	Medium	Valid	Left-Aligned	9	90.0	90.0	90.0
			Justified	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	Valid	Left-Aligned	10	100.0	100.0	100.0
Electronics	Low	Valid	Left-Aligned	9	90.0	90.0	90.0
			Justified	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	Valid	Left-	7	70.0	77.8	77.8

			Aligned				
			Justified	1	10.0	11.1	88.9
			Centered	1	10.0	11.1	100.0
			Total	9	90.0	100.0	
		Missing	**Missing**	1	10.0		
		Total		10	100.0		
	High	**Valid**	**Left-Aligned**	10	100.0	100.0	100.0

Links underlined

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0

			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	

Background colour							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**Black**	2	20.0	20.0	20.0
			White	5	50.0	50.0	70.0
			Gray	1	10.0	10.0	80.0
			Yellow	1	10.0	10.0	90.0

			Brown	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Black**	3	30.0	30.0	30.0
			White	3	30.0	30.0	60.0
			Blue	1	10.0	10.0	70.0
			Gray	1	10.0	10.0	80.0
			Yellow	1	10.0	10.0	90.0
			Green	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Black**	1	10.0	10.0	10.0
			White	4	40.0	40.0	50.0
			Gray	4	40.0	40.0	90.0
			Pink	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**White**	5	50.0	50.0	50.0
			Blue	1	10.0	10.0	60.0
			Gray	1	10.0	10.0	70.0
			Pink	2	20.0	20.0	90.0
			Purple	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Black**	1	10.0	10.0	10.0
			White	7	70.0	70.0	80.0
			Gray	1	10.0	10.0	90.0
			Yellow	1	10.0	10.0	100.0

			Total	10	100.0	100.0	
	High	**Valid**	**Black**	1	10.0	10.0	10.0
			White	4	40.0	40.0	50.0
			Blue	3	30.0	30.0	80.0
			Gray	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**White**	8	80.0	80.0	80.0
			Blue	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Black**	1	10.0	10.0	10.0
			White	7	70.0	70.0	80.0
			Blue	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**White**	7	70.0	70.0	70.0
			Gray	3	30.0	30.0	100.0
			Total	10	100.0	100.0	

Frames

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	

	High	**Valid**	**No**	10	100.0	100.0	100.0
Health	**Low**	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	10	100.0	100.0	100.0
Electronics	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	10	100.0	100.0	100.0

Adaptable to screen resolution

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	6	60.0	60.0	60.0
			Yes	4	40.0	40.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	

Health	**Low**	**Valid**	**No**	6	60.0	60.0	60.0
			Yes	4	40.0	40.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**Yes**	10	100.0	100.0	100.0
	High	**Valid**	**No**	1	10.0	10.0	10.0
			Yes	9	90.0	90.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	

Search

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	4	40.0	40.0	40.0

			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	6	60.0	60.0	60.0
			Yes	4	40.0	40.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	1	10.0	10.0	10.0
			Yes	9	90.0	90.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**Yes**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Yes**	10	100.0	100.0	100.0

Customer Comments							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	9	90.0	90.0	90.0

			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	5	50.0	50.0	50.0
			Yes	5	50.0	50.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	4	40.0	40.0	40.0

			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	

Cart

Sector Number	Usage Frequency			Frequency	Percent	Valid Percent	Cumulative Percent
Clothing	**Low**	**Valid**	**No**	3	30.0	30.0	30.0
			Yes	7	70.0	70.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Yes**	10	100.0	100.0	100.0
Health	**Low**	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Yes**	10	100.0	100.0	100.0
Electronics	**Low**	**Valid**	**No**	1	10.0	10.0	10.0
			Yes	9	90.0	90.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	2	20.0	20.0	20.0

			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**Yes**	10	100.0	100.0	100.0

Suggestion							
Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	8	80.0	80.0	80.0
			Yes	2	20.0	20.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	4	40.0	40.0	40.0
			Yes	6	60.0	60.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	6	60.0	60.0	60.0
			Yes	4	40.0	40.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0

			Total	10	100.0	100.0	
Electronics	**Low**	**Valid**	**No**	5	50.0	50.0	50.0
			Yes	5	50.0	50.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	7	70.0	70.0	70.0
			Yes	3	30.0	30.0	100.0
			Total	10	100.0	100.0	
	High	**Valid**	**No**	2	20.0	20.0	20.0
			Yes	8	80.0	80.0	100.0
			Total	10	100.0	100.0	

recently viewed

Sector Number	**Usage Frequency**			**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Clothing	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
Health	**Low**	**Valid**	**No**	10	100.0	100.0	100.0
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	

Electronics	**Low**	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	
	Medium	**Valid**	**No**	10	100.0	100.0	100.0
	High	**Valid**	**No**	9	90.0	90.0	90.0
			Yes	1	10.0	10.0	100.0
			Total	10	100.0	100.0	