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Consumer behaviour in E-Commerce

Millennials in the USA, Washington D.C area

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| <p>The target of this thesis was to understand consumer behaviour in e-commerce. The target area is the Washington DC area USA from amongst young adults between 21-34 years of age classified as millennials. The impact of technology changes and variables influencing the selection process of an e-retailer among the millennials was studied. A research with help of a survey to total 285 participants in four different shopping malls was performed in the Washington D.C. metropolitan area conducted between April 1st and May 31st 2015.</p> <p>The findings of the survey show that both the number of consumers who use the Internet for both assessing a product and retailers that are selling via Internet is growing in the area of this research. Consumers are also purchasing with more frequency on the Internet and as such the importance of the Internet is becoming a crucial aspect to understand consumer behaviour. The items purchased on the Internet range from small purchase items of iPhone cases to large purchase of vessels and work trucks with prices ranging on the thousands of dollars. Trust is imperative on the Internet and along increasing competition it is the all more important to have a strict control of what goes in the Internet and what goes out to the Internet in regards to ones business.</p> <p>On a personal note, I had an experience purchasing a truck replacement part from a farm ways out in Pennsylvania farmland. The seller at the conclusion of the transaction remarked how without “this Internet” we would have never met or known we existed. I believe that simple remark summarizes all the importance of E-Commerce.</p> | |
| Keywords | E-Commerce, Consumer Behaviour, Washington D.C, Internet business review |

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1 Introduction

The trade of goods has been an ancient practice that might very well mark the beginning of modern man. The need to obtain something for exchange of something one owns has evolved into a delicate science that fuels the mechanism of commerce. This trade of goods has evolved into what we call today commerce. Today our world revolves around commerce; laws are created to protect commerce, promote commerce and at times ban commerce of certain goods. As the world has progressed so has, the type of things commerce is used for. For instance, today's industrialised or developed nations have gone well beyond the boundaries of simple goods trading in bulk and through traditional brick and mortar retailers but now have moved to diversify demand in niche consumer demand and to deliver goods to consumer locations instead of retail stores. It is now not enough to have a simple toothbrush but a toothbrush that embodies the wants of consumers more than the needs itself while at the same time have that delivered to the consumer's door step.

Today technology has made it easy to learn about a chair, buy that chair and have that same chair delivered to one's doorstep. This concept is called E-Commerce, which is the trade of goods and services using the Internet as a medium to conclude a said set transaction being carried out with the use of the Internet. E-Commerce has matured into an industry that encompasses many industries. Such a new channel has made it possible for customers to gain greater bargaining power. This newly found power within consumers has made it imperative for producers to understand consumer behaviour (Hunt, 2000).

The Internet enables individuals to reach information with low level of technical know-how that unlike other methods of communication allows for real time response to what a person is looking for on the Internet. The magnitude of interactivity has been growing along with the rapid development of computers and other digital devices. Consumers can now interact in real time sharing views and experiences that have generated a type of collective scrutiny on products that do not meet customer's expectations, hence weeding out products or merchants that do not meet consumer's expectations. As more potent computer systems came up the access barrier was lowered for more consumers to join and experience the technology. The Internet is now a lifeline, which

companies can no longer live without and a technology that is the driving force behind E-Commerce.

E-Commerce has amounted to 83 Billion USD at the end of June 30th 2015 in the United States. A double in ciphers from just four years ago with a figure standing at 41.25 Billion USD at the end of June 30th 2010. (YCHARTS, 2015) This number is expected to grow at a steady low digit percentage point according to sales forecasts recently published. (Markets, ei pvm) This number represents 7.6% of total quarterly retail sales in the United States. The growth in contrast to the total percent has seen a growth of 14.1 percent in relation to the same figures back from the 2nd QTR 2014. Figures 1 and 2 illustrate at a greater detail the growth. (Denale, 2015)



Figure 1. US E-Commerce sales as percent of total quarterly retail sales. (Denale, 2015)

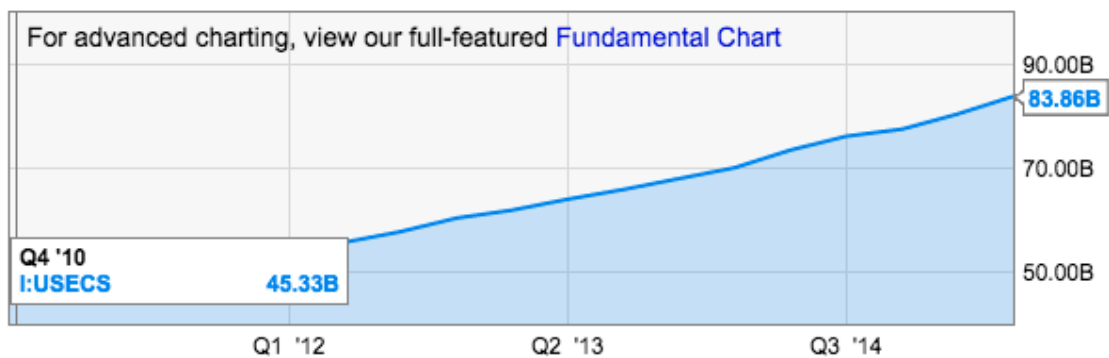


Figure 2. US E-Commerce Sales Chart (YCHARTS, 2015)

The high development of a country has meant higher human development index of each individual member of such a country so that the skills individuals create in service or goods are of high quality in value. As there have been various advances in human development, so has there been development in technology that we feel changing our lives very often. A few years ago, you could not imagine using your watch to make payments or your phone to be an encyclopaedia of endless information or to easily network with individuals thousands of miles away. My thesis here hopes to bring into focus the evolution in E-commerce and how that has affected business decisions. I will study how businesses today are coping with changes in customer behaviour. This is done through academic research on concepts developed on E-commerce and a survey completed in the Washington D.C. Metropolitan region between May 1st and September 10th 2015.

1.1 The target and scope of the thesis

I was motivated to write my thesis about e-commerce because of experiencing the E-Commerce process personally. The effort and process taken to deliver the goods I ordered from pre-conception to delivery fascinated me and encouraged me to make research about this topic. I took also into consideration that E-Commerce was not only limited to goods I could purchase online but I could experience also services by using the Internet. From the standpoint of business I realized that understanding your customer is paramount in order to survive in a world where nothing no longer is certain and where innovative or clever product differentiation make a big difference. So it was only logical that in my research I focused on trying to understand customer behaviour in E-commerce. Therefore, the target of this thesis is to study how the order fulfilment process and systems support E-commerce in retailing business and how customer needs are fulfilled.

The scope of this thesis is to study customer behaviour of young adult Americans engaged in e-shopping in the Washington D.C area. According to Nielsen Global Survey of E-commerce (2014) my main target group of customers must be so called Millenia's as they are up to 63% more likely to buy things online than any other group (see

figure 3) Generation X consumers are the next group in line but for sake of keeping things simple I will focus mainly in Millennia's.

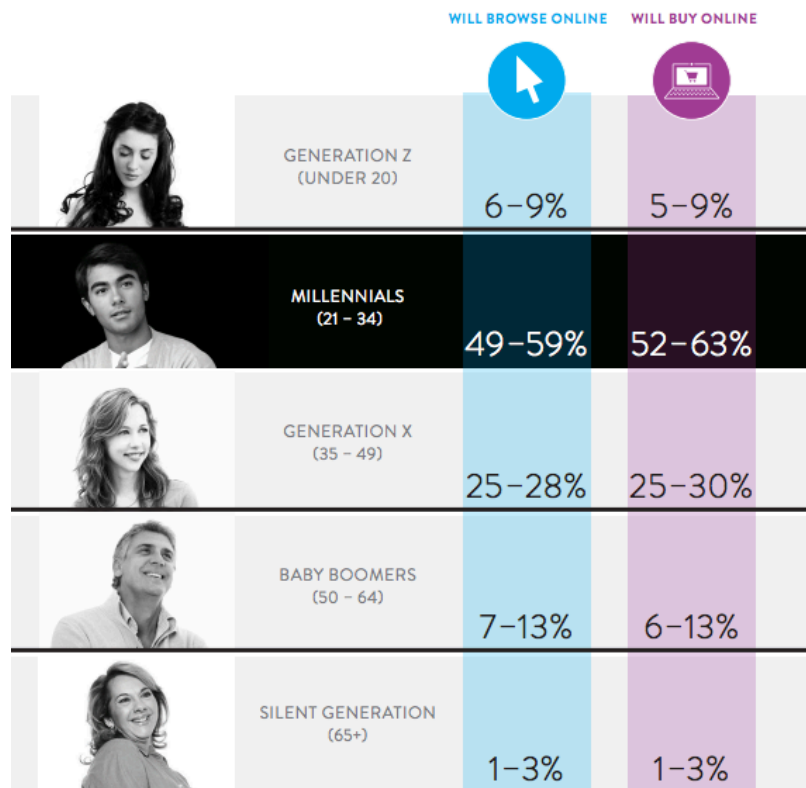


Figure 3. U.S E-Commerce Consumer Behaviour (Nielsen, Evolution or revolution in the consumer goods world?, 2014)

The main research questions answered in my thesis are:

- What affects the e-shopping behaviour of young adults in the USA?
- How do young adults in the USA choose e-retailers?
- How has technology change influenced the way companies develop their supply chain strategy?
- How have technologies changed the way businesses interact with clients?

1.2 Methodology

Reaching conclusions needs questions asked and a method to have those questions answered. In the literature review of my thesis, I gathered data pertaining to online or-

der fulfilment and how online ordering systems compliment sophisticated supply chain models. This will help to understand consumer behaviour in online retail models and how retailers in local areas, as those that will be discussed in more detail later on, should adjust their fulfilment process as a direct result to online activities.

My research on secondary date borders certain advancements in supply chain models that allow for greater flexibility for producers. I studied also with some detail Internet technologies that are the driving force in differentiation in the E-Commerce field.

The primary research was done in Washington D.C Metropolitan area where the author lives. The research data was collected by making a survey to total 285 participants a in four different shopping malls to adults from the ages 21 to 34.

Short interviews were implemented to support the survey questionnaire and an example of the questionnaire used is as attachment 2. The primary data collection was done between April 1st 2015 and May 31st 2015.

2 Supply Chain Model in E- Commerce

The sophistication of technology and industry processes has meant competition not at a company level but at a supply chain level. It is for that reason that understanding supply chain is important for upkeep on business in the 21st century (Xiao, 2007) Brick & Mortar (actual physical stores) retailers have had to change their strategy in the past decade due to the increasing expanding array of products available to purchase on the Internet and have it directly delivered to your door. Many of the same retailers have opened web-shops on the Internet to have their goods available in this new channel. With the world Economy swiftly changing, companies have switched to compete on the online market. The competition starts with clear planning of certain aspects of the supply chain that can be linked directly as essential to E-Commerce operations.

A lot of the progress that are now indispensable for maintaining an E-Business model, developed in the past 50 years behind the curtains of retail stores and in their business processes. This change has been possible because of many advances in technology have allowed for more efficient reduction in production cost and cost of business transaction. Supply chains have now become more agile and versatile to cope with the de-

livery of parcels to homes across a continental region. The maturity of supply chain technology and models paved the way for the E-Commerce we know today.

During the past 25 years' technology penetration rates to the various supply chain levels of all types of industries has meant the gradual destabilization of vertically integrated models of supply chain management. Greater emphasis on customer and business interaction should be taken as the last step to reaching maturity as a business channel.

When one understands the development of the supply chain then one can better understand the reason of things to come in its own subject. Commerce in the past was as modern commerce today with their established supply chain models in a more rudimentary manner. Initially vendors sought the items that they could sell in shops and stores for profit. Producers in turn were looking for raw materials necessary to forge items that were sought by vendors. In various industries, there were various types of brokers of both raw materials and parts necessary to complete an item. During the time, it became evident that the most profitable way to do business was to vertically integrate all stages of business such as the acquisition of the raw materials, transportation of raw materials, hiring of workers to assemble the various parts of a product, etc. As such, vertically integrated supply chain models, was the first type of model developed. It consists of all areas of production housed under one company that manages and oversees everything. (Smith, 1776)

This all changed when new technology came about that allowed for companies to communicate more efficiently within their own companies and even at times make it affordable for small business to get in the game and compete with big businesses.. Big enterprises started to implement their own networks where a protocol was used to receive and send data. This was first done in enterprises where information that was all the time repeated as the signing of freight and other documents could be left to electronic means, as most of this data was the same all the time. Using such systems reduced costs in using less paper and print but also allowed for faster processing of items. (Smith, 1776)

Today technology is allowing for all aspects of production to specialize independently in their own supply chain locations making it so that power is almost evenly distributed across an industry. This type of commerce is still in its infancy and will continue this way as newer technology asserts itself in the broad spectrum. As we see it more and

more frequently, individual and small businesses have the opportunity to balance the scale on their favour against big economies of scale by using networking platforms that allow them to reach a target market efficiently at the right time and right place. (Bartholdi, 2000)

I shall endeavour in covering relevant areas to small businesses in regards of copying in E-Commerce. This includes product decisions, distribution decisions, material flow decisions, and cash flow decisions. To operate efficiently and make the best use E-Commerce channel, a company must understand the products that consumers are seeking, the manner by which consumers seek their products to be delivered, how the margins of certain types of material flow can impact profitability and the manner by which cash moves from consumers to the suppliers and vice versa-

2.1 Product offering decisions

There are certain products that retailers keep in their shelf as according to the relative industry they find themselves. A sports equipment retailer will follow suit for related in its industry as well as a fashion outlet retailer for its related industry. The decisions how to place products in inventory are not random but well planned schemes that allow greater room for greater margins.

Since the Internet does not give any limits to the amount of products displayed in one's web site, a web store could pose an unlimited amount of products. However, what is the real aim of having a web store in the first place? To amass a great quantity of items on a database? The simple answer is to maximize profits by creating the most suitable environment that enables purchase of items in a web store. In the same manner that a retail store chooses the products it will have to offer and display so must the web store also choose the products that it can offer and fulfil. Relatively the process is to reinforce both retail location sales and web store sales by making sure the same products are available on both channels and more in accordance to the strengths and weaknesses of either. However, a web store has the advantage of being relatively more flexible than a physical retail outlet location.

Businesses today are adapting a strategy of "give customers what they want" and so have gone to great lengths to attain a variety of versions to a single product. A cup or a

belt is no longer a belt or a cup in that type of market but rather an identifier to personal likes and wants of the consumer. When blue jeans first came to the market, there was only one style and one shade of blue. Today we can find a great amount of jeans available to consumers ranging from different shades of blue to different styles of fit. (Webster, 2007) As producers seek to configure product offerings in the greatest range possible, so also retailers decide on the type of products, which are the best to offer, as not everyone can be Amazon or EBay.

The offerings one can make contain different components just as products are made of different components. A retailer can choose to sell product A or product B or both A and B together. Webster (2007) illustrates the latter with having a square representing a product and a triangle representing another product. The offerings available either can be in a stand-alone manner or grouped together. In fact, two offerings together create a new offering. In this manner, five different offering options are available to retailers.

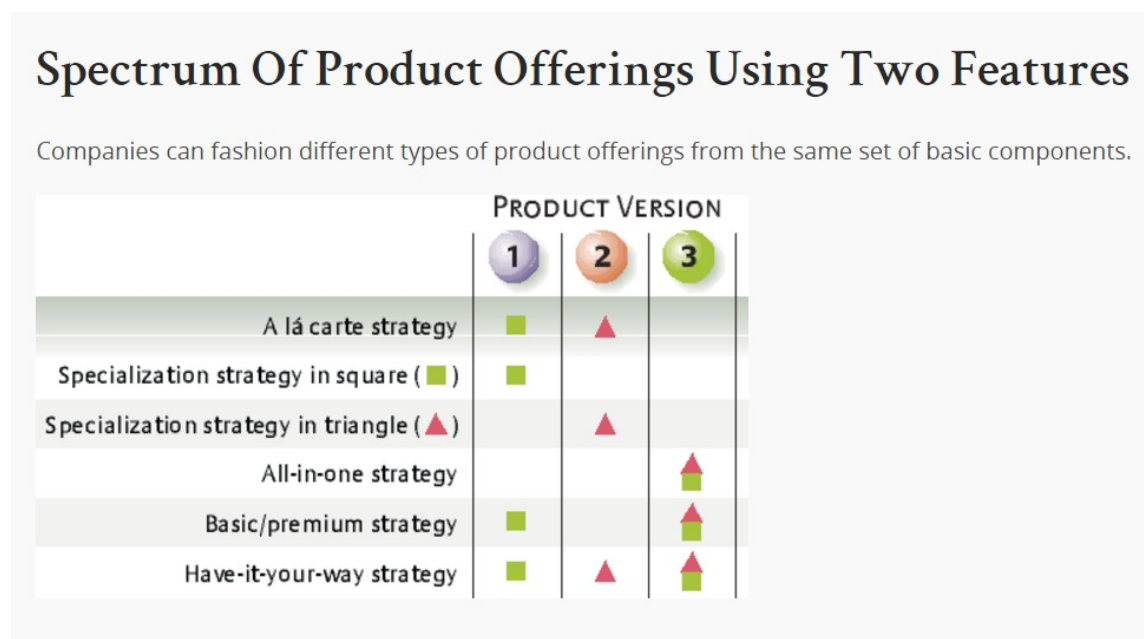


Figure 4. Product Offerings (Webster, 2007)

Figure 4 illustrates the different types of offerings that are possible from the two basic ones. These different types described by Webster (2007) are explained in detail as follows:

- **A la carte offering**

As the name itself implies it, an offering model where consumers have the option to choose offering features individually. For example, fashion e-retailers' consumers have the option to buy individual clothing pieces where the retailer is selling pieces from the same collection. Another example are auto parts web sites where consumers can find individual pieces of vehicles or machinery. Considering A la carte offering means that under this market or segment there is little demand for customization in features added to the product being sold. Another factor that must be considered when preparing a product offering model is the marginal costs of combining features relative to demand. It may be easier to offer bundles in offerings but if the demand lags or is non-existent then A la carte offering is the way to go.

- **Specialization offering**

There are brick and mortar retailers and businesses that offer only one type of offering for the service or product they offer. A good example of such an offering model are car dealerships or heavy equipment web sites that offer only heavy equipment.

- **All-in-one offering**

In this model of offering, consumers do not have the option to purchase an item of a product offered as a bundle. A good example of that, although is currently changing, are cable broadcasting services where consumers do not have an option to choose Internet service only or telephone service only. Another example of such an offering is Airline International Bookings that must include a bag regardless of whether you are carrying a bag or not. In my own experience, I have encountered a hotel in Orlando, Florida that had an All-in-one offering model for room charges. This hotel had already an inclusive price for beverages in the room, Wi-Fi and breakfast but consumers could not choose to opt out of them.

Businesses ought to consider such a plan when there is little or no demand for other options that there may be available. There would be no point in having offerings that no one takes advantage of while at the same time incurring the costs of having such products or services shelved thus consuming money. In addition, one must consider the opportunity of pulling in a greater number of

consumers when features and adaptations help to offset the costs in offering such a product.

- **Basic/premium offering**

This mode of offering is not that different from the All-in-one offering model I have just described. The difference between the two is that consumers are required to commit to an All-in-one offering if they would desire a premium service on top of the basic service; hence Basic/premium offering. For example, Microsoft Windows offers their operating system Windows 7 at different levels which at each incrementing level includes services from the preceding level. E-Commerce has based a lot of its offering models around this type of model where a lot of the products sought out by consumers have their basic counterparts. Consumer wants to create demand for premium type of goods.

Take for example the pet supply web site <http://www.petsportsgear.com/> that offers accessories for pets customized with the teams of choice of owners. The web site offers pet supplies also but also customized with team's logos and other signage.

The demand for products or services under this type of offering model has to be optimal in order to maintain various configurations. At the same time exclusive product offering allows to target various segments in a market that willingly offers a premium for the exclusivity. The high prices offsets the any overheads that may reduce the profitability in producing such products.

- **Have-it-your-way offering**

Burger King, a fast food chain network has coined such a phrase in their campaign to deliver burgers made to consumer's individual wants. Offerings in this category can have an immense potential of alternatives that exponentially multiply according to the available features for each product. FedEx Kinkos has been in the sector early on delivering options of print on customer's own terms of size, colour, type of paper, etc.

From all the different offering models, this last one has had the most impact in E-Commerce offering strategy. There are many web sites on the Internet offering a variety of customizations available on basic products or services. In fact,

all of the offering options are set in an evolving manner. The maturity of a market enables the innovation of added features to compound benefit to products.

Fixed Costs and Marginal Costs play a big role in determining production set up of products with producers. But as for retailers whether they may be E-Retailers or Brick & Mortar Retailers the focus lies on consumer's demand. Consumers may have a variety of choices out there but wanting is a very different thing from buying. It has been proven that many times consumer's will forfeit choice of features in order to purchase something at a lower price. (Webster, 2007)

Companies in the United States such as Ebay.com and Amazon.com have been exemplary examples of E-Commerce success stories that have prevailed operating only on the Internet. So as the latter two giant Internet Retailers have prevailed so have a horde of smaller web shops specializing in various niche markets. This success is linked at a certain degree at having an integrated supply chain management model. Buying things from the Internet does not only means receiving products to your doorstep but also the experience that comes with it. In that sense, efficiency over the supply chain can greatly improve the Internet shopping experience. (Xiao, 2007) (Smith, 1776) It has been increasingly easier for small businesses to enter the marketplace thanks to mainly to social networks that can turn a viral tweet into an enormous business opportunity. Therefore, it is only logical to play close attention to the new changing models of E-Commerce.

2.2 JIT as supply chain strategy

Just In Time strategy is often well regarded in all industries as the optimal strategy to both attain customer satisfaction without any disadvantage on both the competitive and cost side. The key to maintaining a Just In Time supply chain is the coordination of production, planning, sourcing and logistics. Many small businesses do not cover production scale items but rather the sourcing and logistics side of things. (UPS, 2005)

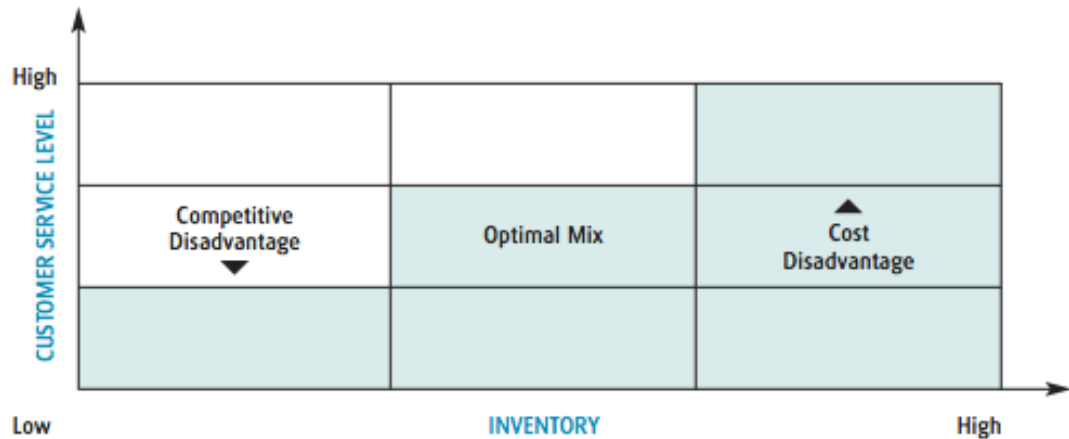


Figure 5. Optimal Mix to supply chain (UPS, 2005)

Figure 5 shows the importance of understanding the balance needed in the level of customer service and the inventory kept. Very often companies that grow in size use consultant companies to aid them with the process of implementing a more JIT process.

3 Technology in E-Commerce

3.1 Technological requirements

E-Commerce deals a lot with the Internet and as the Internet is founded on technological innovations, then we can assume that a certain degree of technological understanding must be implemented for better understanding of customer behaviour. Technology is the main factor defining E-Commerce and therefore it is important to understand.

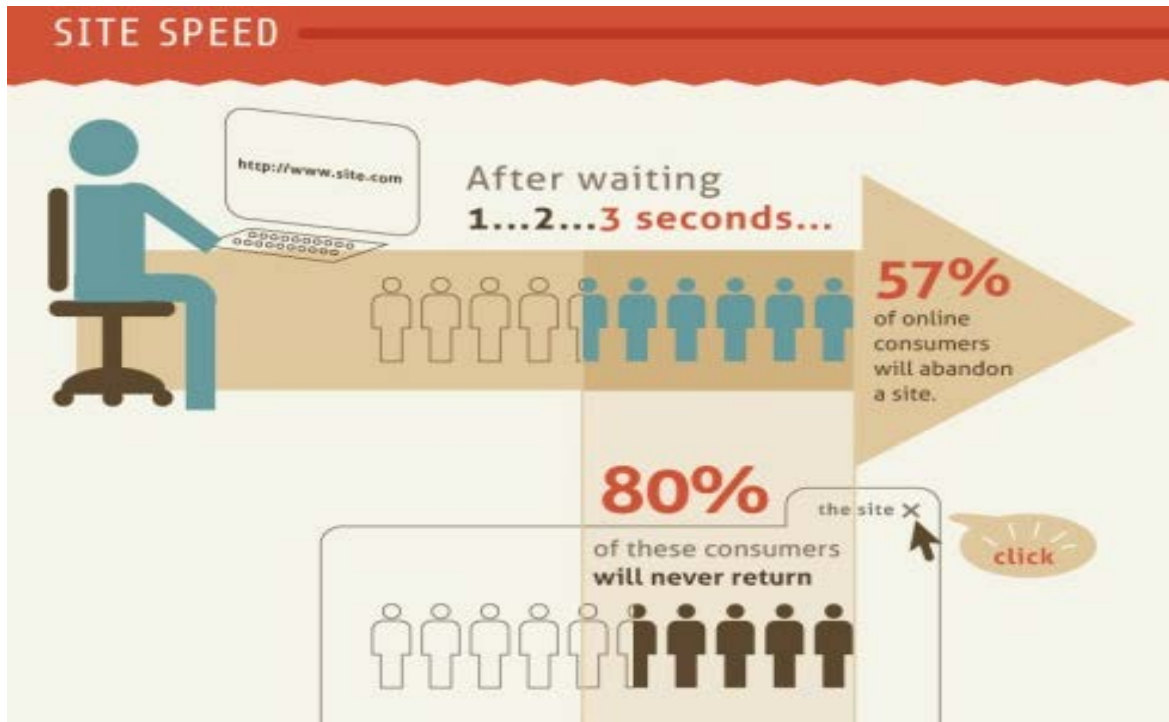


Figure 6. Site speed impact on consumer behaviour (Vouchercloud, 2014)

Figure 6 shows us that the speed at which consumers experience a website greatly affects the image a business portrays to consumers. Eighty percent of consumers will never return to a website that would not load in the first 3 seconds. As a seasoned online buyer, I can confirm the claim as true. Various factors contribute to the fact that a web page may not operate properly or slow. For one the domain provider may have poor equipment, or not enough resources allocated for the price paid or simply the resources made available or managed by the service provider are not adequate. (Olofson, 2004) This is thoroughly covered in the white paper by Olofson (2004) where it is described how IBM is incorporating technologies in order to better cope with resources demand so that a shared viral video on the same data cloud would not affect business operations for the business. Today many companies have given away their servers and started to rely on big data centres (Olofson, 2004).

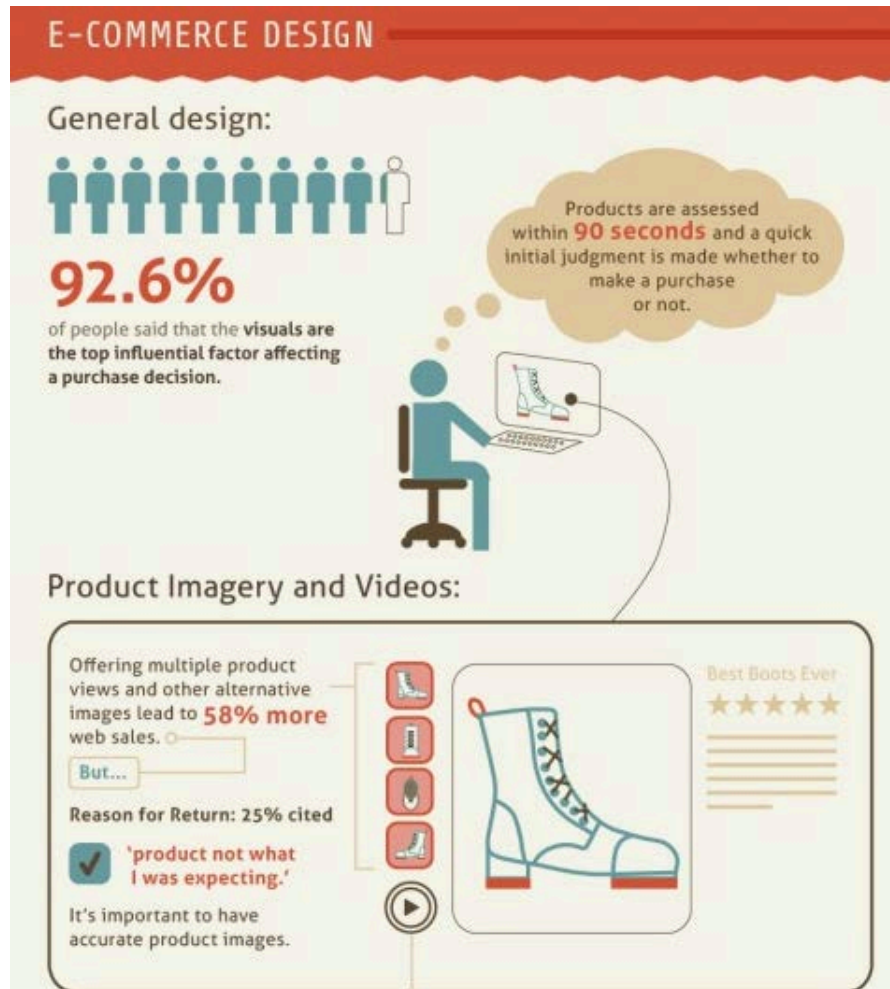


Figure 7. Web-site design impact on customer behaviour (Vouchercloud, 2014)

In the same manner as I have previously stated on speed of response of a website, so is the design of a website as relevant. Too much information or not enough graphical imagery may drive away consumers in a hurry. There has to be a balance of materials presented on a website as they are the main front of interaction with consumers in this channel of distribution. There are several in-depth- studies on the design of websites and how it is done. Figure 7 provides an example of the importance of website design.

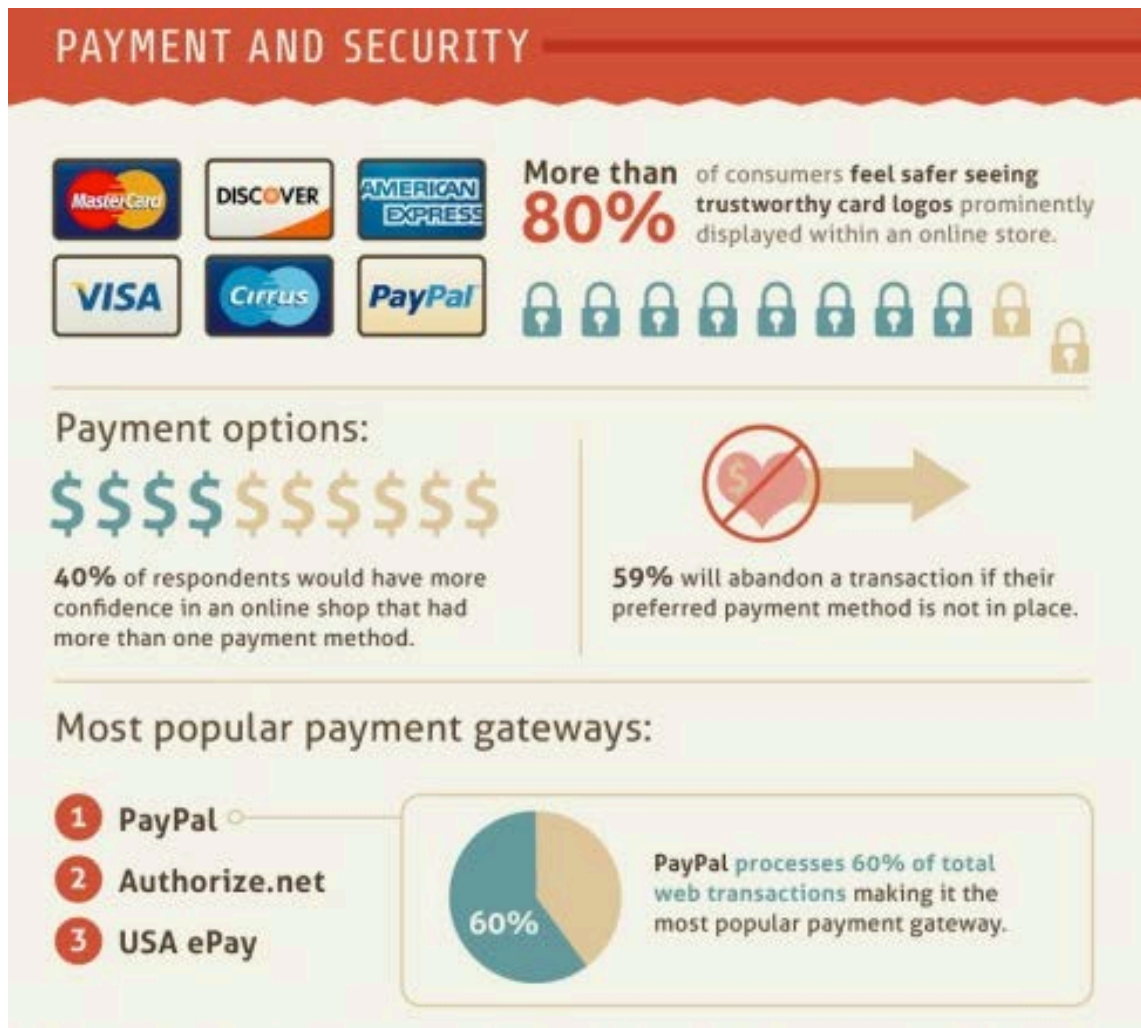


Figure 8. Web-site security technologies affect consumer purchase decisions.

Security in a website is essential when dealing with monetary transactions that will occur (see figure 8). Consumers have been learning the hard way how they should spot a legitimate website and so integrating such technologies in a business plan is a must.

3.2 Technical Reliability

E-Commerce is 100% dependant on Internet technologies. Often enough technical solutions and support are outsourced to IT service providers. However, it is important to understand basic technological functions that can be tested on a system for its reliability. Several factors are important in order to measure the quality and reliability of the

IT solutions and systems used. A list of this kind of quality factors by Masoud (2010) is introduced in appendix 1.

In order to reach a sound and reliable system for the operations performed in web, it is essential to avoid problems related to speed of service (see figure 6) These problems are mitigated and their removal allows improved ROI, cost savings of up to 70%, better user perspectives and less costs resulted from the testing of the system before deployment. Table 1 illustrates methods that could be used to evaluate and understand the process. (Technologies, 2012)

Table 1. Reliability test roadmap (Technologies, 2012)

| Evaluation dimension | Evaluation Objective | Output |
|----------------------|---|--|
| Functionality | <ul style="list-style-type: none"> ▶ To identify fragile areas of the application through proprietary "Structured Chaos" approach ▶ To expose existing defects in application | <ul style="list-style-type: none"> ▶ Application Fragility Report ▶ Regression Test Suite |
| Compatibility | <ul style="list-style-type: none"> ▶ To test application across 800+ configurations (OS / Browsers / Anti Spy-wares / Anti-virus / Tool bars / Firewalls / ISP's) ▶ To expose configurations that are incompatible with the application | <ul style="list-style-type: none"> ▶ Application Compatibility Report ▶ Test Lab configuration recommendation |
| Performance | <ul style="list-style-type: none"> ▶ To expose any performance issues in the application ▶ To evaluate the maximum user load, the application can sustain | <ul style="list-style-type: none"> ▶ Performance Test Report highlighting performance issues ▶ Recommended Maximum User Load application can sustain |

3.3 Website Design

Designing a good website front does not only constitute having great graphic design but also presenting the information in a manner that would aid consumers finding information at a glance. This means being able to attract a potential buyer into understanding the concept, functions and value of the product being offered. In many facets designing a website that would keep a buyer on it and then to have at the same time him or her to purchase a product, is similar to the “elevator pitch” concept. It only takes only a small detail to throw off someone from the beginning. This may not be obvious in the beginning but when someone can close your website with a click of a mouse a lot of things have to be considered. Figure 9 gives us a good overview of one of the key elements to consider when designing a website. These elements are listed below the figure.

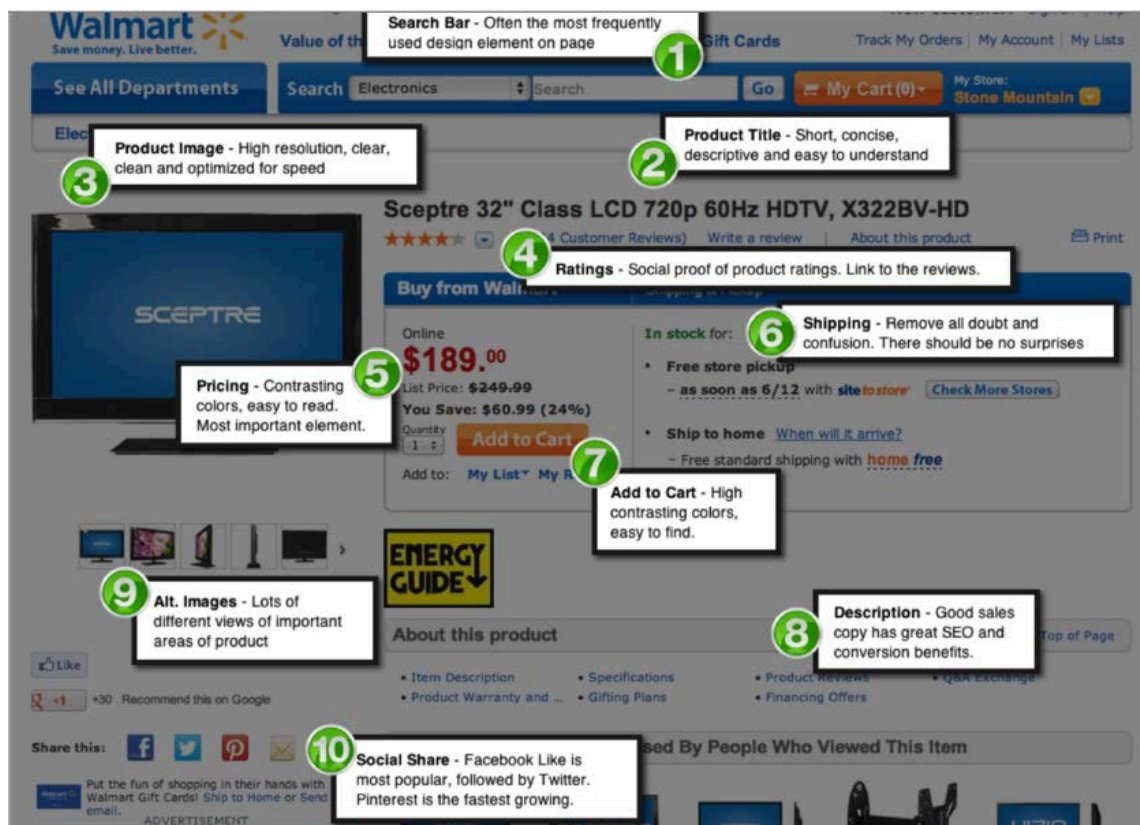


Figure 9. Key aspects of website design (Lawson, 2010)

- 1- The search box to find and greatly simplify the user experience
- 2- Product titles that carefully describe the product in its key elements briefly

- 3- Product picture in different angles, colours available or style. This may be by far the most important aspect of the presentation as a picture, like the old saying goes “A picture speaks a thousand words” A consumer can have more confidence to purchase an item if a picture is involved.
- 4- Reviews of previous purchases are very important to have as clients are less likely to purchase.
- 5- Price shown of the product has to be clear and inform to the consumer on the broken down price early on the purchasing experience as many consumers will abandon a cart if there are hidden fees or charges in the end.
- 6- Shipping info is important and as well as the price clear information must be given
- 7- The Add to cart button may be a trivial addition to a website but this is the part that is the most important to a website since once that button is clicked the likelihood of a consumer buying that item grows exponentially. Amazon.com has successfully patented the business process of enabling consumers to order clients with just one click on their website (Arsenault, 2012).
- 8- Product description is the next step for a consumer that has found the item he is looking for. As there are a variety of products sold with the same function a consumer will often seek to learn more detailed functions of the product in order to decide on which item to purchase.
- 9- Images
- 10- Social sharing options are empowerment tools to guest that will allow them to act as representatives to your product while they share their experience. Therefore it is important to maintain a thorough check on issues that may arise for consumers as one bad review can eliminate other potential clients due to the bad review.

4 Customer Behaviour

4.1 Consumer Behaviour Metrics and Tools

It is very important to understand the customer one caters to. This is exponentially so in E-Commerce as information and word of mouth can travel through this channel at the speed of light. Word of mouth has taken an extreme turn with the introduction of the

Internet and social media as individuals can now in a matter of seconds share with virtually the whole world their opinion on a certain product, service or business. This thesis introduces terms and subjects that entail business with tools to attract and retain customers in this climate where consumer behaviour helps one maintain afloat. Today businesses are evolving their customer concepts based on consumers' criteria and consumers are treated as individuals rather than a group of having the same criteria. These criteria take into account various factors and various data such as past transactions, demographics, psychographics, media and distribution preferences. Building customer loyalty has become imperative in such a model. (Kotler, 2003)

The need to understand consumer behaviour is related to the analysis of data generated by individual consumers. The most prominent of them is data mining. E-commerce is "the killer-domain" in data mining field as there is fulfilment to requirements like: plenty data records, reliable electronic collection of data, and return on investment which can be measured. These tools in data science allow acquisition of measurable patterns in data. More and more ventures and companies show us the growing need to acquire data mining companies. For example, Yahoo purchased HyperParallel for about 2.3 million U.S dollars while a few years later another data mining company, DataSage, was purchased by Vignette for 577 million U.S dollars. There is a clear interest in data sciences. (Suhail Ansari, 2010)

E-Commerce has seen a steady growth of purchase of goods starting strongly with products that would not otherwise need physical trial before purchasing. These products are ranging from 45% to 58% for books, music and software. The next tier of products range from 20% to 21% for airline tickets, clothing and hotel reservations. The latter categories demand greater ordering convenience. There is not much need in feeling a book when it is possible to read the introduction of it over the Internet and assess the reviews to purchase. In the same manner it is not necessary to actually be at a travel agency to purchase airline tickets but a phone call could also place that reservation. Although clothing is growing as a field where people are ordering more and more via web, there is still a lack of confidence on buying clothes without actually having to try them on first. The Internet is less useful for products that need to be touched or examined. However, there are tools that are being more frequently used by consumers in order to assess the quality and actual experience of the product. (Kotler, 2010)



Figure 10. Product reviews impact on consumer decisions on purchase (Vouchercloud, 2014)

Figures 10 and 11 inform the reader about tools evolved and used by consumers to critically judge a product as whether considered worthy of buying or not. Figures 10 and 11 do not only show the means by which consumers categorically eliminate products by retailers but also the importance of having a presence in places where people make their voices heard. Here enters social media and how a viral story can completely shut down a business for a time or permanently. Businesses must seriously look into having a social media presence that can be manageable and visible. (Vouchercloud, 2014)

Reviews on products and services on the Internet are quite important as shown in figure 10. Even 79% of consumers will trust the reviews they read on online retailer websites. Also in recent years 85% of consumers read online reviews of local businesses before actually visiting the business itself. In fact, whole new service concepts have arisen out of the need to have a trusted site to learn the experiences others had on a business. Yelp.com and Angieslist.com are good examples of companies that seek to

capitalize on the consumer's need to have a trusted site for review of good services. For example, Angieslist.com is a site that allows contractors to meet certain requirements in order to be certified by their website. A contractor must present information every time a job is done and has been requested per the website. Yelp.com is a similar website that works mainly on stores that provide services such as restaurants and venues. All of these data shows technology-enabling consumers with greater power while at the same time providing companies with a horde of information to gather and analyse to provide further services on data analysis. (Vouchercloud, 2014)

Apart from product reviews and services that provide a site for consumers to express their satisfaction or dissatisfaction, there are other ways through which the consumers can get information about a product. Figure 11 shows the various sources consumers use in order to get their information on a specific product.



Figure 11. Impact of info videos for purchase of products (Vouchercloud, 2014)

Consumer behaviour follows patterns that can be predicted when one takes into consideration the value consumers go after. Consumers in general seek to obtain an item,

which they specifically need. Many times it has been proven that consumers practice some type of impulse buying while searching for that specific product. Consumer behaviour can be broken down on operational dimension, and spatial dimension. The latter along with emphasis on what brings a consumer value leads to assumptions that guide business.

4.2 Different dimensions of consumer behaviour

When consumers set out to seek for a product to buy they can use various information sources. Operational dimension is the definition of the strategy by which consumers choose their sources of information for reference on a specific product that is needed. In this manner brands play a big role in the decisions consumers take when choosing a product. This is more so in E-Commerce where trust is very important. Consumers may also use the Internet as part of their research for a product that would later be bought on a storefront. (Hadjiphanis, 2005)

Consumers decide on what to obtain for exchange of their monetary assets in various ways but it usually starts with historical recollection. People remember what they have purchased before and play on that thought to relate new acquisitions. This search defined as the Spatial Dimension of consumer behaviour. The value placed on a purchase starts from previous experiences and is further enhanced by research done as explained in Operational Dimension. (Hadjiphanis, 2005)

Temporal dimension defines itself as the time a consumer takes from the first moment of starting to think about the idea to the moment of obtaining it. This concept can have different origins in E-Commerce since most of the time consumers decide and start to think on obtaining a product via the Internet out of a need of convenience. The original process might have started with the need to go to a store to purchase an item but the convenience clause starts another dimension to temporal dimension. (Hadjiphanis, 2005)

As for impulse buyers, temporal dimension starts with an offering to save and receive “freebies” Figure 12 shows that certain groups like Asian Americans have higher tendencies to be impulse buyers according to the benefits, discounts or others obtained through offering. On the other hand, impulsive buying could be the result of a long process of searching and researching a certain product so that when an offering comes it is taken with confidence. (Hadjiphanis, 2005)



Figure 12. Actions taken after seeing social net ads (Nielsen, 2012)

4.3 Consumer Value

Consumer A may value product 1 but Consumer B may value product 2 with little or benign care for product 1. It is for that reason that it is worth understanding which consumers the company is targeting and what is it that makes these consumers pay attention to the offering of the company. People usually take into consideration their experiences, beliefs, needs, etc. The latter are mainly considered without much thought as said attributes contribute to the formation of taste. However according to Hadjiphanis (2015) there are certain traits an individual usually judges a product by and they go as follows:

Excellence: This clause is self explanatory on its own meaning as consumers seek for the best item that fits their need. It is the benefit that brings satisfaction to the buyer

Status: Consumers buying an item at times buy it for utility in social scenarios. This is true mainly with jewellery but lately a lot of products are combining such concepts to bring more value to consumers.

Design: The design of a product is how great it looks or defines the lifestyle of individuals preferring always something that would make them feel unique. Yet the consumer will seek to be part of an identity that often is defined by design. This does not only apply to products but also to the manner in which retailers both in physical stores and

in online stores present themselves to consumers. Consumers scrutinize the comfort offered by a product along the utility, in order to find a balance that fits individuality. For this same reason producers will have various version of a product that can provide the same basic functional attributes to the user but advanced features that add on to life-style and comfort are chosen over others.

5 Research in Washington D.C area

Empirical data is of the utmost importance when trying to understand phenomena. The results of this thesis rely on the analysis of a survey, which took place between May 1st 2015 and April 31st, 2015. The purpose of the survey was to identify the individuals relevant to this research. Once identified, questions presented in more detail in the questionnaire in appendix 2, questions were given in order to confirm the process that manages consumer behaviour area identification and participant's identification

The survey was carried out in the Washington D.C. metropolitan region over three geographical areas that compose the greater Washington D.C. area. The area consists of Washington D.C. in its entirety, Virginia with its Northern counties and two cities and Maryland with its southern counties. The survey was conducted in four different shopping malls: Fair Oaks Mal in Fairfax, VA, Tyson's Corner Mall in McLean, VA, Tanger Outlets in Oxon Hill MD and Chevy Chase Pavilion in Washington D.C (see figure 13). The time of interviews was mainly during the weekends, which is the busiest shopping time.

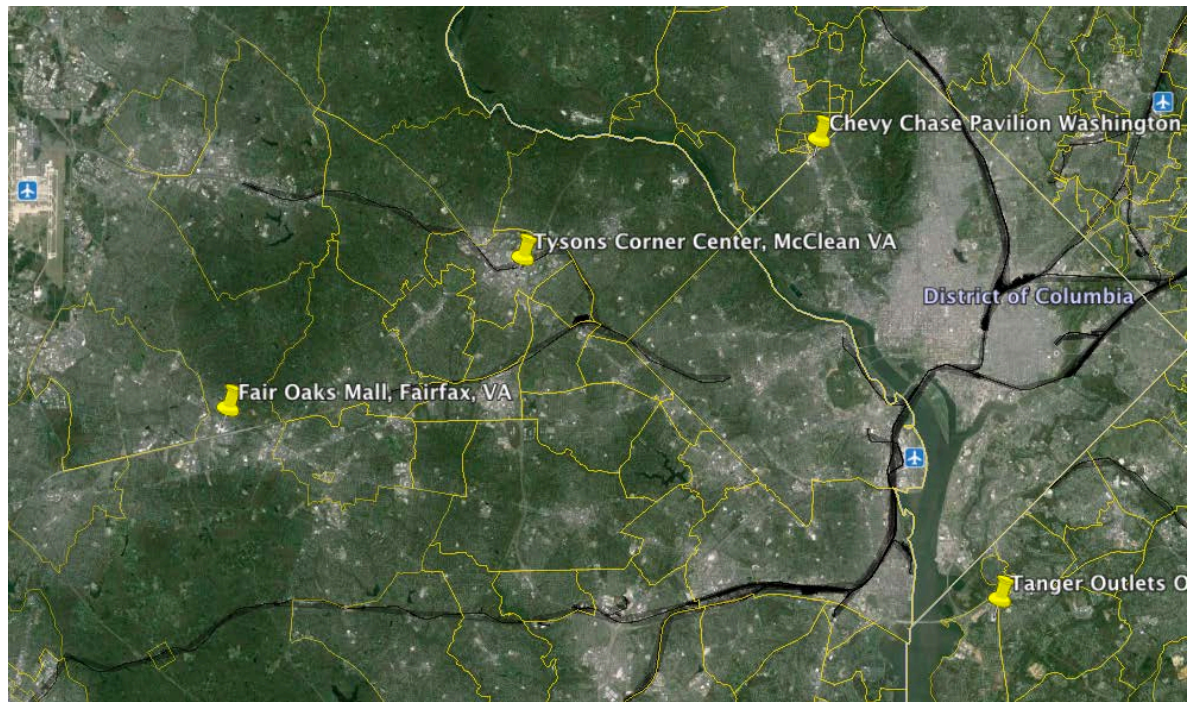


Figure 13. Places where the survey took place

The average age of individuals who participated in this survey was 27 years old from a pool of 285 eligible participants. They were 165 Female and 120 male from the same pool of people. I would have tried to get an even number of respondents from both sexes but getting male participants to participate was not an easy task. There were certain occupation groups that I sorted the participants under and those are: consultant, sales, private, navy, IT support and Federal government. The majority fell under sales followed by consultant and a wide array working either for the military or the federal government in D.C. One interesting aspect I found out through this survey was the general diversity that there exists in the region and the ease of mobility. During my survey I recorded individuals coming all around the area, neighbouring metropolitan regions and also one from all across California. I encountered various tourists that I could not interview as they did not conform to the target group I needed to perform my research. The Washington D.C. area has a great variety of nationalities and I did meet a Finnish couple that was visiting the area while on my survey. The latter statement is not supported as an actual question regarding ethnicity on the survey but rather as an observation made by me as I conducted the survey. My observations also showed me that participants of this survey to be evenly spread amongst Caucasians, Hispanics, Africans and Asians. The Washington D.C. area is a very diverse region.

5.1 Online buying behaviour

Participants of the survey had a range of preferences when it came to online behaviour. The majority of individuals shopped for clothing on the Internet with other groups shopping for home décor and a tied number for electronics and auto parts with very few people buying groceries to be delivered to their doorstep. As shown in figure 14, there are certain web-shops that consumers visit more often than others.

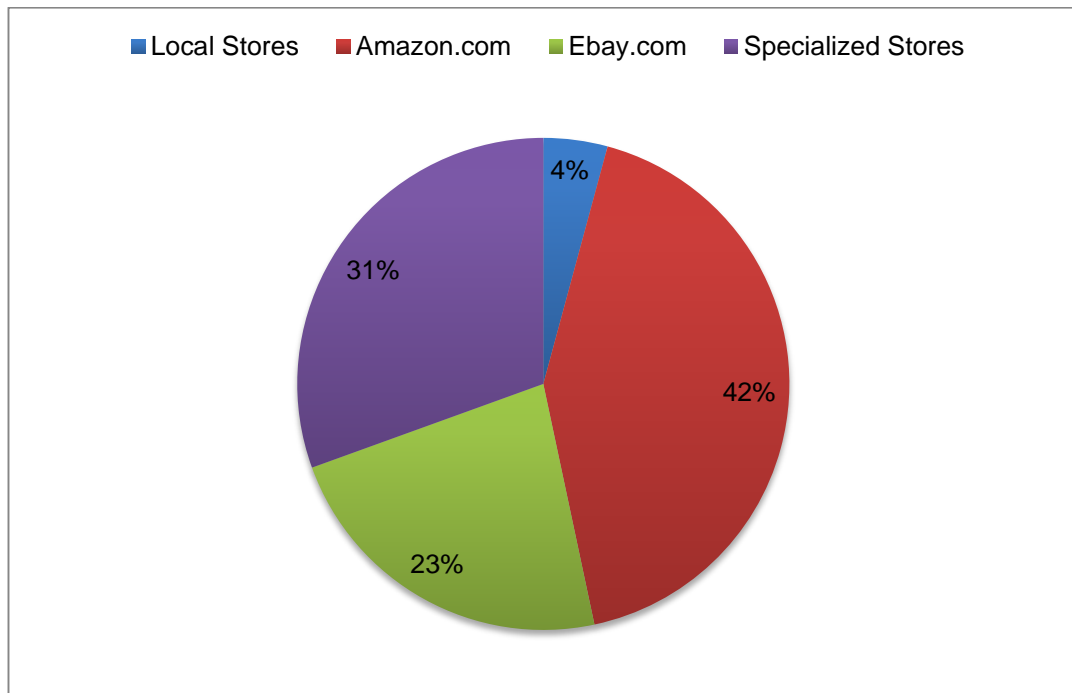


Figure 14. Washington D.C area preferred online stop

Amazon.com and Ebay.com have the biggest share of activity. However, we can also see that there is a reasonable amount of people shopping in specialized websites. These specialized websites are the online shops of small retailers that mainly operate over the Internet or others that augment their business through online shopping. This indeed shows the great importance that the Internet is having on all types of businesses. Even while at big online retailers like Amazon.com and Ebay.com, there are a variety of small business owners whom are using the big retailers to expand their business. These small businesses send their packages over to a distribution centre where a big retailer would take over the whole fulfilment process of the small business.

The survey also shows with question 9 that most of the participants seek out the best deal when shopping on the Internet followed by brand name. This data shows us that the majority of participants in the region seek the Internet to both obtain great deals and also obtain trusted brand names. Many of the participants (192 out of 285) considered themselves impulse buyers. While the question was not confined to either physical store impulse buying or Internet impulse buying, the following questions gave better understanding on the impulse buying behaviour of individuals on the Internet. Also many participants (187) would be willing to try new website to purchase from as described in question 22.

In general, the majority of individuals tend to shop still more at local physical stores rather than the Internet. However, the numbers are promising with the majority shopping online every two weeks, a small group twice a week and a big number twice a week. Figures 15 and 16 illustrate this statement.

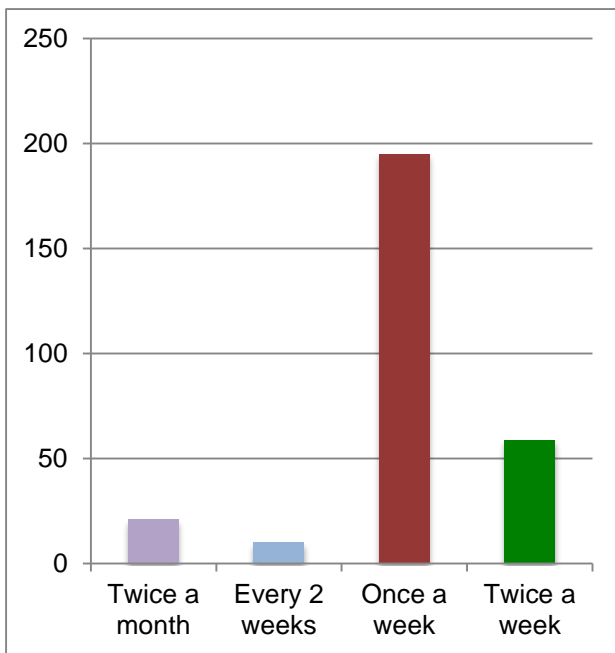


Figure 15. Physical retail habits

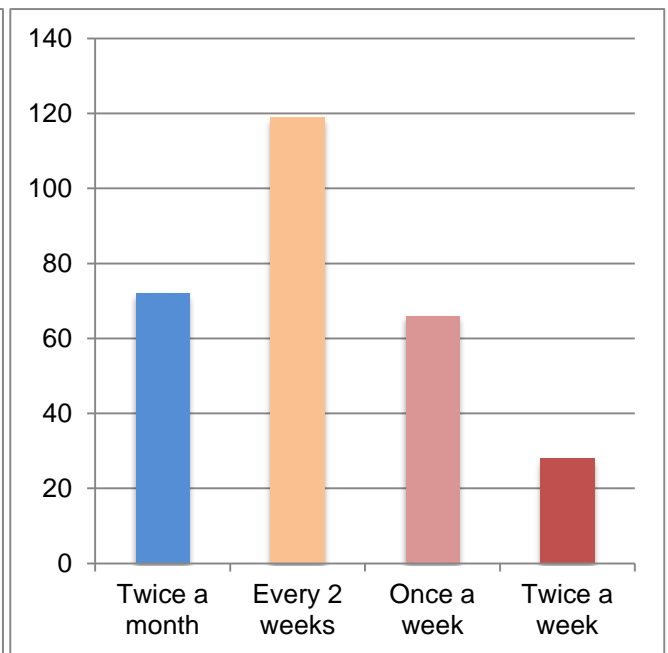


Figure 16. Online retail habits

Consumers may not go shopping online as shopping on physical retail stores but they do have tendencies to be impulse buyers, which makes it the most important for websites to have a good product line for offering. Understanding that a customer that is seeking to buy auto parts may also need to buy the tools for performing such maintenance.

5.2 Online Shopping Preferences

The survey demonstrates that the technology is furthering consumer value of purchases going beyond utility concepts but also ideological ones. Also question number 13 of the survey revealed that the majority of participants (187 participants) declared that they searched for alternatives when shopping locally at physical stores. The data leads us to seek further demonstrations on the manner in which the alternatives are betted.

Figure 17 shows the manner in which clients search for information regarding the quality of a product sought out for purchase on the Internet.

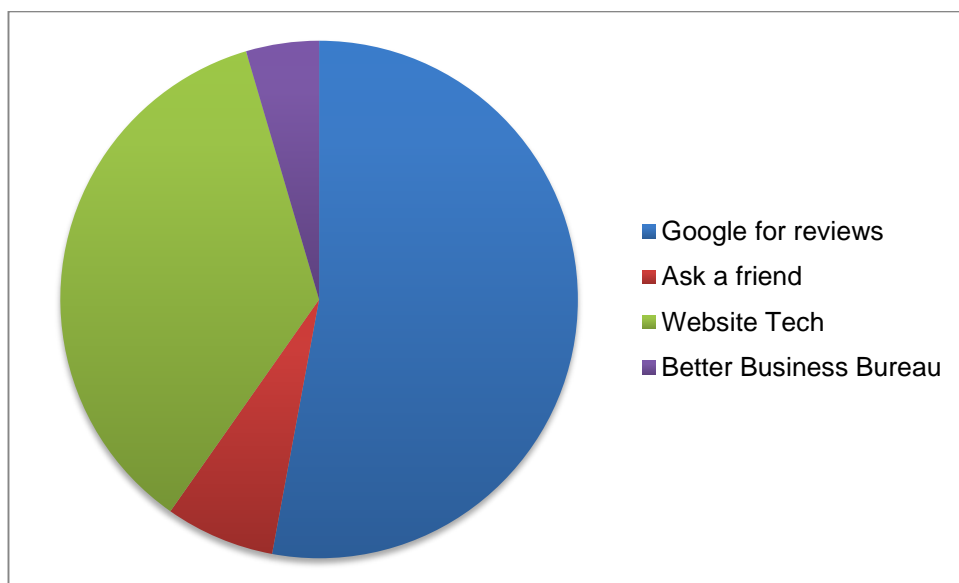


Figure 17. Betting for trusted websites to shop from

Consumers are learning and also using technology that has become sophisticated enough as an extension of the individual needing little or no skill in the use of them. In question 16 the participants were asked on the strongest negative impact the lack of a certain attribute to the website and product would have on them. The great majority (111) of participants chose that the lack of reviews was the strongest negative impact a website would have on them.

The manner in which a website presents product information and itself is very important to participants according to question number 17. How pleasing the design of a website is a very important factor to 149 participants followed by an important factor for 97 par-

ticipants. These numbers show us that very often consumers will judge websites only by its looks unless, like question 20 answered with 217 participants, the website offers a very special item.

Figure 18 shows the key factors participants found the most annoying. Question 19 was left as a multiple answer one. Figure 18 shows that a slow website is as displeasing to a consumer as spam.

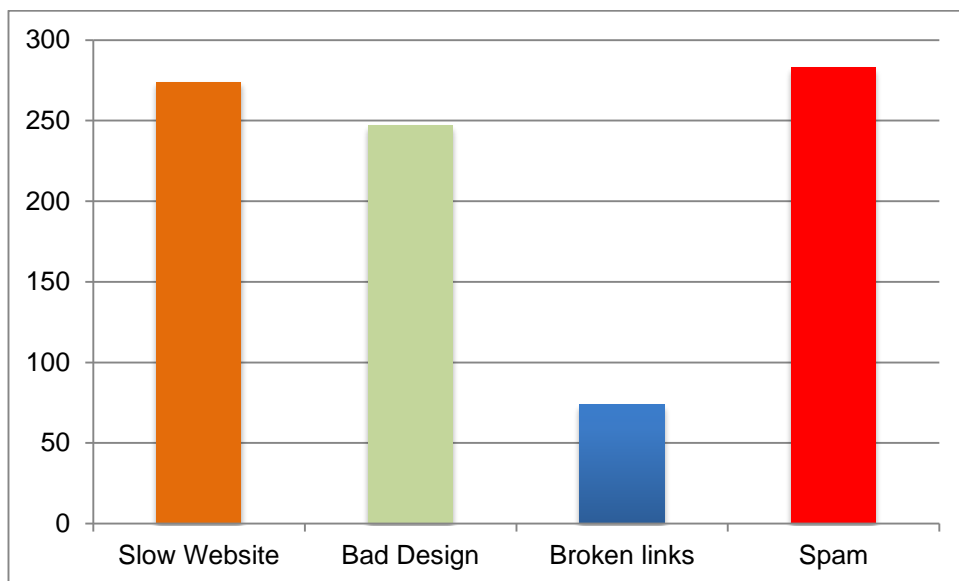


Figure 18. Scare away factors in websites

Question number 21 was a question that asked consumers about the circumstances in which they would purchase an item from an online retailer that did not offer refunds. The majority of participants (124) responded that they would consider it if they could not find the item anywhere else. Other participants (96) would also choose such a website if they were offered a better deal than anywhere else. Some left answering?

Participants of the survey were also inclined to write reviews of a product only when they had a bad experience. As shown in figure 19 participants singled out a bad experience. This was placed on purpose aside from bad service.

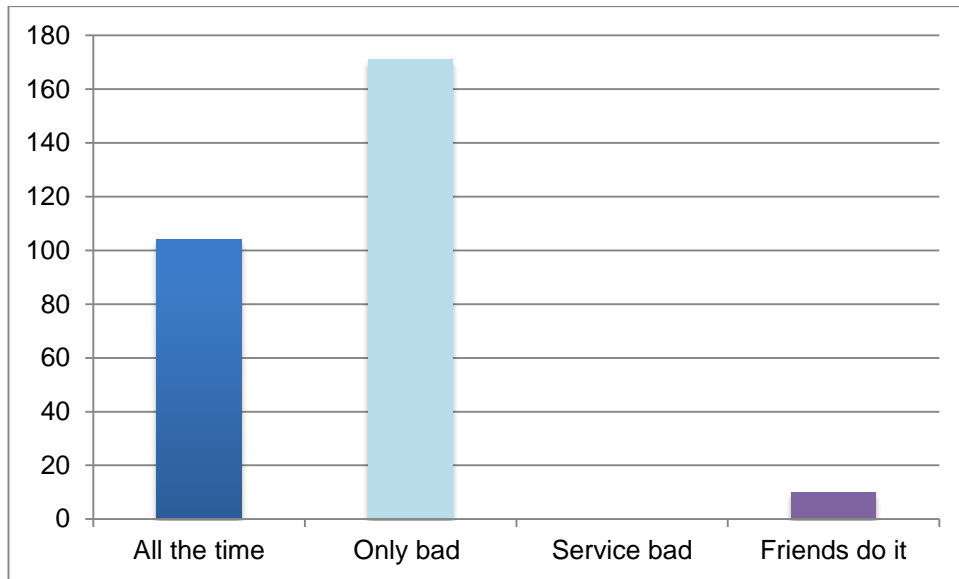


Figure 19. Reason for writing reviews

This was so because participants often described during the survey that they did not write a bad review when they had bad service on support or a restaurant if what they were looking for was actually good. For example a participant told me about an experience in the restaurant where the service was not good but the food was so good that he actually wrote a good review about the restaurant. On his own words “ after all, I was there for the food not the service” Therefore when asking this question I asked a little further to find what actually they were commenting on. Another example that led me to this conclusion was that participants that bought online would not write a bad review when something had gone wrong if the seller went to great lengths to resolve the issue. Impeccable communication was imperative for many participants.

Participants were also asked about their activities on social media and it was found that 193 of the 285 participants considered themselves very active on social media with the following number at 171 as quite active. Social media brings us to a question regarding hot issues trending like abortion, child labour, racism, corruption and exploitation on question number 24. Many of the participants answered that they would not have anything to do with a website related to such topics (256). Therefore, it is safe to say that sellers are to be careful holding merchandise that may inadvertently be a hot topic. Many of of the same participants bought items on the Internet after hearing of them over the Internet. Many of those purchases made were as donations on buying items whose proceeding would go on to charity.

An interesting fact brought up by question number 23 to conclude this section, is the fact that 101 individuals bought items over the Internet in values ranging from 3000 USD and 5000 USD. But, in the other category there were a couple of participants that had purchased trucks worth over 25000 USD. However, the process to purchase such an asset is more complex than what this thesis covers and only serves as reference that E-Commerce is robust and growing still.

6 Conclusions

E-Shopping consumer behaviour as shown in the research is a very important aspect of maintaining an E-Shop. This is also true for physical retail stores that hold an E-shop presence on the Internet. The Internet is becoming more and more interconnected with our daily lives as it can be seen on the survey through the recurring purchases individuals made on the Internet. Consumers are using a variety of Internet tools that are placing greater leverage on consumer bargaining pricing on prices and products available for purchase. The research clearly showed that consumers are engaged in finding the best deal with the Internet. However, a question on the validity of actually finding and fulfilling the need planned by purchasing the product could have been a plus to this paper.

Businesses have changed a lot due to the Internet. New business models themselves have been born on the idea of online services. Many of these services are based on bridging the real world with the online world. In the research before you, companies such as Yelp have enabled consumers to follow and express opinions on services or goods. The Internet has spawned a variety of tools that consumers use to inform themselves in order to empower their bargaining power. Such new tools have in turn spawned entire new business based on the Internet, which I call E-Commerce in our context. My research did not touch on the subject of social media while it did mention that a business presence was growing more and more important. Social media was an unfortunate shortcoming to the thesis in regards of research provided. The topic of social media is a broad subject that would need an entire research paper for its own. However the research focus was consumer behaviour not the end product of it, social media tools for shopping.

Companies are changing dramatically the way they interact with clients starting firstly with their supply chain strategy. The offering models used as shown on my research, gives us a glimpse onto the different available strategies companies have started to adapt so to quickly respond to demand changes. Unfortunately the survey research was not able to draw up a questionnaire on the strategies applied by online retailers of physical store retailers, which would have been a great addition but are a shortcoming in this research paper. The one aspect of the survey questionnaire that tended to supply chain strategies are the ones dealing with impulsive shopping questions and the time taken to deliver goods. The latter proves that there is no small mistake that can be made in engaging Internet technologies.

In this research I have shown through relevant third party sources, that the main, and upcoming, market for online products are young adults. The current age group are those denominated as “Millennials” aging from “21-34” years old. The per cent of participation about young age groups is much greater than “Millennials” A further step of this research would be an actual follow up to younger individuals and how their buying behaviour differs from the ones studied in this paper.

E-Commerce has evolved exponentially and technology is its catalyser. The more technology changes and improves the more E-Commerce will grow for everyone to participate in. As business and supply chain processes grow leaner and of greater scale, so do the offerings in service and products available to consumers. The research survey done by the author as detailed in the research section in this thesis, shows us that for the Washington D.C area, consumers use the Internet moderately compared to other zones of the same age range according to (Nielsen, Evolution or revolution in the consumer goods world?, 2014)

The products one sells, how the products are presented and the added value that is brought onto the consumer by all the latter are some of the things that are important to consider when opening a web shop. In the same manner retail sellers with physical stores must not discard the use of Internet services as consumers will always find ways to find information on bad experiences and at times could be devastating.

Not too long ago a controversy involving a famous restaurant named Tadich Grill brought the restaurant on the spotlight of a massive online protest with individuals posting bad reviews on various mediums on the Internet. It is still not certain whether such

a controversy has hurt the restaurant but there are thousands and thousands of posts distancing from the restaurant and swearing never going back. (O'neal, 2015)

The story above serves as a reminder for all businesses to be mindful not only of extreme topics but also of any disgruntled customer. As we have shown many consumers will forfeit a bad review when attention is placed in making things better or the end product is perfect as they wish it.

An important aspect to take into consideration is the similarities between crucial technology introductions during the past 100 years and the digital revolution of the past 50 years. Just as the telephone became mainstream during the first part of the 20th century so is the Internet becoming a mainstream technology becoming more and more a vital part of everyday life. The telephone first started as a basic technology that would only work in a limited manner. Today the traditional telephone has almost disappeared from all homes with cell phones replacing them. Telephone calls can be made all across the globe and the reach of cell phones is far reaching even into remote areas of the world. So in the same manner the Internet will reach every place in the world eventually.

It is interesting to me that the world is seeing the advent of the Internet just as the telephonic technology is maturing all across the globe. The timing is only logical as the Internet is in essence a communication technology. It can only be expected that just as telephone technology changed a lot of things in the world so will Internet technologies change the world in a way we may not imagine today.

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- Table 2: Identified Quality Sub-Factors -

| Quality Sub-Factors | | |
|---|--|--------------------------------------|
| 1. Usability | 1.4.3 Analyzability | 2.5.2 Completeness |
| 1.1 Efficiency | 1.4.4 Changeability | 2.5.3 Necessity |
| 1.1.1 Time Behavior | 1.5 Involvement Capacity | 2.6 Content Adequacy |
| 1.1.2 Purchase Process Performance | 1.5.1 Attractiveness | 2.6.1 Updated Content |
| 1.1.3 Page Generation Speed | 1.5.2 Aesthetic Attributes | 2.6.2 Correctness |
| 1.2 User-Friendliness | 1.5.3 Client Profile Identification | 2.6.3 Intelligibility |
| 1.2.1 Understandability | 1.5.4 Simulation | 2.6.4 User Oriented |
| 1.2.2 Products Information Availability | 1.5.5 Additional Services Availability | 2.6.5 Respectability |
| 1.2.3 Interactivity | 2. Conceptual Reliability | 2.6.6 Concise Content |
| 1.2.4 Learn-ability | 2.1 Functionality | 2.6.7 Completeness |
| 1.2.5 Information Localizability | 2.1.1 Accuracy | 2.6.8 Compatibility With Real Store |
| 1.2.6 Response Time Uniformity | 2.1.2 Client Support | 2.7 Scalability |
| 1.2.7 Forms Of Payment Availability | 2.1.3 Information On Product Delivery | 2.7.1 Multiprocessor handling |
| 1.2.8 Storage Of Purchase List | 2.1.4 Suitability | 2.7.2 Farming capabilities |
| 1.2.9 Help Availability | 2.1.5 Flexibility | 2.8 Availability |
| 1.2.10 Products Comparison | 2.1.6 Interoperability | 2.8.1 24/7/365Readiness |
| 1.2.11 "Shopping Cart" Metaphor | 2.2 Security | 2.8.2 Partial Availability |
| 1.2.12 Printing Facilities | 2.2.1 Payment Systems Security | 2.8.3 Browser version compatibility |
| 1.2.13 Download Facilities | 2.2.2 Vulnerability | 2.8.4 Cross Browser Support |
| 1.3 Navigability | 2.2.3 Site Authentication | 3. Representation Reliability |
| 1.3.1 Absence Of Navigation Errors | 2.2.4 Access Control | 3.1 Readability |
| 1.3.2 Minimal Path & Shortcut Facility | 2.2.5 Confidentiality | 3.1.1 Language Correctness |
| 1.3.3 Drawback | 2.2.6 Privacy | 3.1.2 Style Uniformity |
| 1.3.4 Navigation Structure Taxonomy | 2.3 Reliability | 3.1.3 Clarity |
| 1.3.5 Links Visibility | 2.3.1 Recoverability | 3.1.4 Conciseness |
| 1.3.6 Links Visualization Consistence | 2.3.2 Maturity | 3.1.5 Terminology Uniformity |
| 1.3.7 Alternative Paths | 2.3.3 Fault Tolerance | 3.1.6 Abstraction Uniformity |
| 1.3.8 Navigational Prediction | 2.4 Integrity | 3.2 Standards Conformance |
| 1.3.9 User Level Adaptability | 2.4.1 Data Integrity | 3.2.1 Interface Standards |
| 1.3.10 Interaction Storage Capacity | 2.4.2 Data Entry Signalizing | 3.2.2 Programming Standards |
| 1.3.11 Mobile Devices Accessibility | 2.4.3 Robustness | 3.2.3 Navigation Standards |
| 1.4 Maintainability | 2.4.4 Audit Trail | 3.3 Ease Of Manipulation |
| 1.4.1 Stability | 2.5 Trustworthiness | 3.3.1 Up-To-Date |
| 1.4.2 Testability | 2.5.1 Correctness | 3.3.2 Ability To Trace |

Appendix 2 - Survey Questions

1- Do you use the Internet to buy items?

A – Yes

B – No

2 – Age _____ 3 – Sex _____ 4- Profession _____

5- Home area _____

6 – Where are you most likely to shop on the Internet?

- a- Check deals at local shops like Walmart, Target, etc
- b- Amazon.com
- c- Ebay.com
- d- Specialized Store

7 – What products do you most often buy from the Internet?

- a- Groceries (Perishables & Non Perishables)
- b- Home Hardware
- c- Clothing
- d- Auto parts
- e- Electronics

8- From the above which product in specific do you buy?

9- What is most important to you when buying on the Internet ?

- a- Discount Prices
- b- Best Deal
- c- Brand name
- d- Social Activism

10- Would you consider yourself an impulse buyer? (someone who often buys items without first planning or needing them)

- a- Yes
- b- No
- c- Sometimes

11- How often do you shop for things other than groceries at local shops?

- a- Not very often (once or twice in a month)
- b- Not often (once every two weeks)
- c- Often (once a week)
- d- Very often (twice a week)

12- How often do you shop online ?

- a- Not very often (once or twice in a month)
- b- Not often (once every two weeks)
- c- Often (once a week)
- d- Very often (twice a week)

13- Do you search for an online alternative when shopping locally?

- a- Yes

b- No

c- Sometimes

14- How do you know a website is safe to shop from?

a- Google for Reviews

b- Ask a friend/referred

c- Website says its safe (Verisign, Https)

d- Search a business bureau service

15- What do you value most when reviewing websites to buy from?

a- User experience

b- Understanding problem

c- Various positive feedback

16- When visiting a website which would have the strongest negative impact on you?

a- Lack of production information

b- Lack of discounts offered

c- Lack of graphical representation

d- Lack of reviews

17- How much does it matter to you that a website has a pleasing representation?

a- A lot

b- Very much

c- Some

d- Not so much

18- Do you associate reliability on how good a website looks?

a- Yes

b- No

19- Which of the following will make you not come back to that website again? May choose more than one

a- Very slow website

b- Bad website design

c- Broken links

d- Spam

20- Which of the following reasons would make you work around the issues on the previous question 19?

a- Low price on an expensive item

b- Discount coupon

c- Very special wanted item

21- Under what circumstances would you buy an item from a merchant that does not offer refunds on items?

a- Could not find item anywhere else

b- Too low price to mind

c- Better deal than other places

22- How often do you try new websites?

a- Not very often

b- Sometimes

c- Quite often

23- What is the value of the most expensive thing you had delivered to your door step?

a- 5000 – 7000

b- 3000 – 1000

c- Other _____

24- Would you buy an item related to a controversy regarding hot topics such as abortion, child labor, racism, corruption and exploitation?

a- I don't mind as long as it is a good price

b- Sometimes

c- No I would not

25- How often do you review purchases or services you have attended to?

a- All the time

b- Only when I had a bad experience

c- Only when the service was bad

d- Only when my friends do it

26- How active would you say you are in social media?

a- Very active

b- Quite active

c- Normal

d- I don't use it

27- Have you ever purchased an item after hearing of it on social media?

a- Yes

b- No