Measuring E-Commerce Success

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Abstract

The use of the Internet to promote a business is continuing to grow. From an e-commerce perspective, a successful web site does not necessarily have to have the greatest monetary gain, but can also be created to increase company awareness and/or company image. Specific qualities an e-commerce site must have in order to attract buyers include: website content, navigation, consistency, and customer service. Web analytics help track Internet user trends on the web site and allow the company to analyze trends, allowing them to maintain company visions and objectives. This paper addresses necessary guidelines an e-commerce company must follow to be considered successful.

What is success? Encarta Online defines success as "the achievement of something planned or attempted" (2010). A successful company has a web site that maintains customer interest in a given product or service. Only 15 percent of companies measure the success of their e-commerce site by Internet profit, return on investment, or net present value (Welling & White 2006). The majority of the success is measured in how the customer perceives the web site. Other factors such as customer service, increased responsiveness, and faster deliveries cannot translate into monetary success of a company (Welling & White 2006). System quality, information quality and service quality can ultimately decide if a customer will ever do business with an e-commerce site again. System quality incorporates the web site interface, loading speed and response time. Information quality focuses on the content and value as perceived by the customer. Finally, service quality is an interface to control consumer concerns or problems (Hernández, Jiménez & Martín 2009). All e-commerce sites should have these three qualities. Companies should also be invested in web analytics software to enhance information quality. From an e-commerce perspective, specific criteria can depict if a company web site will be successful or not.

An e-commerce web site can have a variety of different goals. The company's business model explains the role the web site will take. Options are to make it a communication channel for information transfer, a transaction platform, or a customer service interface. (Benwell, Deans & Ghandour 2010). Assuming that businesses are using the web site to conduct transactions, a decision must be made

regarding the proportion of the business that will be online (Benwell, Deans & Ghandour 2010). After that decision is made, the objective of an e-commerce site is to be better than all other competitors. Ways to make a site more appealing is by targeting a specific group, consolidating competitive advantage, and giving customers a good value for the product. Now that there is an understanding of what an e-commerce web site objective is, one must understand how to make a site attract buyers.

Before getting into the dimensions of information, system, and service qualities, one important model used for e-commerce sites is the concept of benchmarking. The goal of this approach is to find the best methods e-commerce web sites can use to increase information, system, and service qualities (Hassan 2005). What benchmarking essentially does is compare the performance of one's website to its competitors. This allows strengths and weaknesses of the site to be identified. When creating a company page, there are certain traits a web site must encompass.

In order to make the web site appealing to customers, all pages must be consistent and easy to navigate. Figure 1 shows how information quality plays a large role in the success of an e-commerce site:

Figure 1: Dimensions of Information Quality

Dimensions	Definition	Manifest Variables
Understandability	Concerned with such issues as clearness and goodness of the information	Clear in meaning Easy to understand Easy to Read
Reliability	Concerned with the degree of accuracy, dependability, and consistency of the information	Trustworthy Accurate Credible
Usefulness	Users' assessment of the likelihood that the information will enhance their decision	Informative Valuable

(Cheung & Lee 2005)

Consistency of the interface allows the customer to clearly and efficiently navigate through a web site (Palmer 2002). One way a user can navigate efficiently is by page design. The more consistent the web site is, the faster the user is able to use the interface. The faster the user learns, the more likely he/she will continue to use the web site (Hassan 2005). Even if web site delay takes place, users may continue to use the site if the structure is consistent and easy to use (Galletta, Henry, McCoy & Polak 2006). For screen appearance, the choice of color, space allocation, and readability are specific criteria a web site must follow to consider the interface functional. Also, the more accurate and consistent the information is, the more reliable the information is to the consumer. As stated before, a web site must have a purpose to the consumer. The usability of the site will enhance the user's decision to use the company's product.

There should be a sharp color contrast between text and background. Without this contrast, the screen could affect the customer's eyes. Also, there should be different text sizes to differentiate between styles of text. All headings, texts, and

typography should be consistent (Hassan 2005). If there is an important message on the site, allocate space wisely around the message to attract user attention. Poor design does not necessarily mean customers will not do business with the company again; however, it could hurt the company image as a whole (Benwell, Deans & Ghandour 2010).

Consumers are more likely to enjoy web sites that are informative, entertaining, interactive, and orderly (Song & Zahedi 2005). There is a fine line between a web site being too simple and a site being too complicated. A web site must be simple enough for any user to navigate, yet interesting enough to keep a user's attention. When a consumer cannot find an item on a web site, around fifty percent will leave the site altogether. If customers have a negative experience on the first visit, such as a considerable delay or the site being too overwhelming, forty percent will not ever come back to the site (Kim, Shaw & Schneider 2003). Content is essential in bringing in new customers and maintaining old ones (Agarwal, & Venkatesh 2002). Often Internet users believe that the best sites should have lots of animation, graphics and color, but they forget the most important aspect of the site: its navigation.

In 2005, online consumers represented only 2.2% of the 916.8 billion in total retail sales (Galletta, Henry, McCoy & Polak 2006). The main reason for this small percentage is because of poor navigation on the site. As shown in Figure 2, dimensions of system quality will help depict if a web site will be successful or not.

Figure 2: Dimensions of System Quality

Dimensions	Definition	Manifest Variables
Access	Refers to the speed of access and availability of the Web site at all times	Responsive Quick Loads
Usability	Concerned with the extent to which the Web site is visually appealing, consistent, fun, and easy to use	Simple layout Easy to use Well organized
Navigation	Evaluates the links to needed information	Easy to go back and forth A few clicks

(Cheung & Lee 2005)

Web site delay plays a large factor with the consumer's satisfaction for the site. Many causes of delay can be because of the user's connection speed (Galletta, Henry, McCoy & Polak 2006). When a page loading time exceeds 10 seconds, the user leaves the transaction and will either redirect the search engine to another site or give up the search altogether (Hernández, Jiménez & Martín 2009). If the user's Internet connection is the same on all web sites throughout the World Wide Web, a company can make the web site simple, yet effective, to reduce the amount of unneeded clicks. Delay of web sites can lead to frustration, dissatisfaction, feeling lost, and the user giving up on the web site altogether (Galletta, Henry, McCoy & Polak 2006). In this day and age, consumers are always on the go. That being the case, if a page takes longer than six seconds, attitudes and behavioral intentions of the user start to tumble (Galletta, Henry, McCoy & Polak 2006). At eight seconds, users have psychological and performance consequences. At ten seconds, they lost interest in the web site and as stated before and may leave the web site altogether. Some users however may have a little more patience. As we continue to a twelve second delay, the user has finally lost his/her patience. Finally, at 38 seconds, users

will stop the task all together (Galletta, Henry, McCoy & Polak 2006). Of course this may vary between different subjects; however the results show that as time increases, users because less patient causing them to do actions e-commerce companies are looking to avoid. Now that there is just a layout on the web site and an understanding of the importance of web site delay, content now must be put on the site.

Content displays information, characteristics and services offered on the web site. The content should offer users clear explanations and facts in a timely manner (Hernández, Jiménez & Martín 2009). There are three qualities content must display: informative, transactional and communicative. Informative meaning there should be a corporate information link explaining general company information and its workers. There should also be an employment opportunity link to show potential jobs within the company. Transactional content gives customers the opportunity to purchase products. Finally, communicative content includes a customer support link to allow potential or existing customers to ask questions. Finally, there should be a frequently asked questions tab to reduce the amount of customer emails and answer common questions. Content should include search capabilities and site maps to attract all users on the web site. A feedback mechanism, privacy policy statement, security information and location information are standard norms (Robbins & Stylianou 2003). While this is all included, it is recommended to keep the site updated on a consistent basis. Content may be overlooked at times; however, if some content was not to be included, it can create a distraction to the web site and cause a hurt in brand image. Content helps relieve the gap between the company

and the consumer which intern strengthens relationships and customer satisfaction (Robbins & Stylianou 2003).

E-commerce sites are very powerful. It is essentially a stop that is open twenty-four hours a day, seven days a week (Benwell, Deans & Ghandour 2010). Companies who understand this are wiling to devote a lot of time and money in making a web site as easy to navigate as possible. To make navigation exceptional, everything must be consistent. The main page should display key content and also a list all sub pages. On the sub pages, there should be a link back to the main page. All menus are to fit the screen without scrolling and content should be grouped into small key categories (Hassan 2005). Even when navigation is up to par, another factor can affect a web site negatively.

Service quality plays a large factor on a customer continuing to do business with an e-commerce site. As shown in Figure 3, there is a correlation between service quality, loyalty, and profitability:

Figure 3: Service Quality
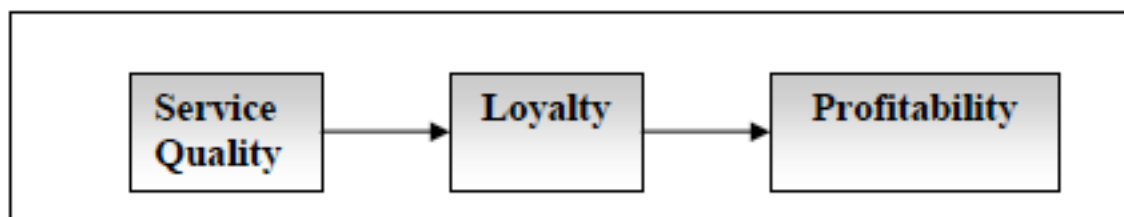
(Oliveria 2007)

Switching costs are very low on the web. A consumer can essentially be on a company competitor's website in one click. This makes it very easy for customers to

compare alternative options. Because customers understand that they have a lot of choices in services on the Internet, their zone of tolerance is very low. If service quality is not at a high standard, a consumer will go to a different website (Oliveria 2007). Hence Figure 3 takes shape. High service quality creates customer loyalty. Customer loyalty means customers are continuing to use the site. Since the company now has a high return rate, profitability increases. Service quality may reduce price sensitivity and increase customer retention. There have been many studies that support Figure 3. A study by Bizrate.com in 2001 found that customers would repeat purchases from their site because e-service quality was the most important marketing variable. Another example is from a Forrester Research poll of 8600 online households. This poll found that high quality content, ease of use, quick downloads and frequent updated made users return to their website.

Social factors play a large role in an e-commerce web site being successful. Web sites eliminate face-to-face interaction with sales people (Benwell, Deans & Ghandour 2010); therefore, lots of potential buyers research companies and product reviews on secondary web sites. Expert and buyer opinions, ratings and comments can influence a potential buyer (Song & Zahedi 2005). These affect consumer behavior in marketing. In order to create customer loyalty and satisfaction, an e-commerce site should include contact details, company information and functions, product descriptions and a picture of a product. Also an e-commerce site may publish customer comments, ratings, and testimonials (Yen 2007). Having these effects on an e-commerce site will enhance customer satisfaction. Satisfied customers will use "word of mouth" to recommend the site to

friends and family. While all of these things are essential for a web site, web

analytics is a very strong interface companies must invest in.

It requires lots of time and money for companies to develop an e-commerce

web site. Because of this commitment, companies are willing to invest in

technologies that will help track their return on investment (Benwell, Deans &

Ghandour 2010). One may feel like you have the best web site ever; however, there

may be an underlying reason deep in the metrics systems that explain why sales are

not as high as expected (Palmer 2002). This is where web analytics comes in. Web

analytics is "the analysis of data gathered online about the use of a web site

including time spent on site, most viewed pages, success of promotions and sales

figures among others" (England & Finney 2007). Companies are able to track this

information. Basic metrics, such as page views and visitors can be meaningless in

terms of web site success. Analytical tools are more frequently used to collect

statistics for reporting purposes as opposed to making strategic decisions. In 2001,

only three percent stated that their web site visitor analysis was critical in the

success of their business (Welling & White 2006). One may question why companies

would invest in these technologies when apparently it makes no difference in their

decisions? Fenton said "We need to measure internal attributes to support the

measurement of external attributes" (Palmer 2002). In order to know how well an

e-commerce site is doing, one must look at numbers. If people are not visiting the

site, how can a company sell products? Web analytics allows companies to see

where customers are purchasing, what operating system they used, and essentially

any other needed information to make inferences about e-commerce progress.

Internet usage will continue to grow in the following years. Making an e-commerce website is penny change comparatively to owning a retail store. Even though an e-commerce site is cheaper to maintain, building a successful one is very difficult. Content, navigation, usefulness and reliability are needed in order for existing and new customers to use the web site. Keeping the web site consistent and reliable will increase customer loyalty towards the e-commerce site as a whole, resulting in higher profit margins. Web analytics software does not necessarily mean a company will be successful; however, it is able to track a company's production. Electronic-commerce web sites will continue to grow for years to come. As the use of the Internet and owning an e-commerce sites continue to increase, having a technically sound website will be a benchmark for success amongst companies.