

# BASEBALL MODEL FOR E-COMMERCE

Gerry W. Scheffelman & Dr. Jeffrey J. Johnson, Utah State University,  
jjohnson@b202.usu.edu

## ABSTRACT

*This article presents and illustrates the “Baseball Model” to be used by startup or failing e-commerce businesses. In baseball the batter comes to the plate, gets a base hit, moves to first base, advances to second base, then third and finally returns to home plate scoring a run. After getting the hit, runners can’t go directly to second or third base. Runners must go directly to first base then second and so on. There is a logical path of progression. In the “Baseball Model” each base on the baseball diamond is occupied by one of three components necessary to establish, create, and implement a successful e-commerce business...*

**Keywords:** E-Commerce, Business Strategy, Business Practices, Baseball Model

## INTRODUCTION

In 1928 Alexander Graham Bell made an across-the-continent call to Mr. Watson in San Francisco. After completing the call, Mr. Bell hung up the telephone and turned to the International Telephone & Telegraph (IT&T) executives stating, “This apparatus has eliminated time and space” [18]. Seventy-three years later the same can be said of the Internet. It has opened the electronic doors to the world

Deming and Scherkenbach developed a philosophy for business management. Transposing and integrating that philosophy into successful Internet businesses requires the following three domains: management, systems engineers, and back-end business personnel [15], [8]. In addition to the domains addressed by Deming and Scherkenbach, Ogilvy [14] and Turban, Lee, King, and Chung [19] note that a passion for the product is an element that should be considered in developing a successful web site.

The first domain represented by management brings the business to the web site table. The content of the web site is the responsibility of management and not the designer [17]. However, the technical aspects of design are the responsibility of the designer. The systems designer represents the second domain is represented by the systems engineering. Here the computer engineer designs a system, a technological highway that connects systems, databases, and software that allows the third step, web design, to complete the process. The third domain is addressed through the web site designer, customer service personnel, accounting, shipping, etc. to provide an experience and get the product from seller to buyer. In addition, it is the responsibility of this domain to provide the buyer with an emotional response that creates an experience and develops the experience into a passion [1], [14], [19]. If the experience, a feeling, is not present, the guest is but a click away from a new site and new experience.

All three parts are necessary for the web site to succeed and must work together to establish strategies and system requirements necessary to integrate the content that will make the site productive and create an atmosphere that will attract, keep, and establish a loyal guest [17].

### **THE BASEBALL MODEL**

Deming and Scherkenback's philosophies are similar to playing baseball. In baseball the batter comes to the plate, gets a base hit, moves to first base, advances to second base, then third and finally returns to home plate scoring a run. After getting the hit, runners can't go directly to second or third base. Runners must go directly to first base then second and so on. There is a logical path of progression. In 2000 approximately 15 percent of the on-line business that failed, failed because they did not follow good business practices and attempted to go directly from home plate to second or third bases [8].

This simple baseball concept, when applied to an e-commerce business, can turn that business into a successful Internet business. Each base on the baseball diamond is occupied by one of three parts necessary to establish, create, and implement a successful web site business. First base is occupied by management, second is the system engineer, and third consists of company personnel required to design and operate the web site. Home plate is the sale. Before the game can begin, management brings a strong business strategy to the batter's box. The strategy can be a traditional brick and mortar, an existing online brick and click enterprise, or some combination of both. Whichever type of enterprise management brings to the plate, the end result is to get the hit, round the bases, and make the sale. The responsibility for getting the hit and advancing to first base is in the grip of management.

#### **First Base, Management**

The principles of business don't need to change. It is the application of the principles that is changing with the advent of e-commerce. Each business moving online requires individual strategies that focus and meet the needs of the target audience. Businesses should focus on specific users by determining user demographics when structuring of the web site. Define the target market, match the site to the target user's goals, and develop a step-by-step process to assist the target user to reach those goals [17].

Defining the target market and primary goals of the buyer are tasks developed through management. Build web sites that go to "where the eyeballs are," [21]. Identifying the target market is much more complicated in the cyber-world than one might imagine. With the brick and mortar store, management targets a specific demographic population through income, ethnicity, gender, age, etc. Online entrepreneurs need to include these same characteristics and technical issues, such as modem speed and monitor size, in the demographic platform.

Jones [12] points out four key factors to successful customer retention. First, develop a sustainable identity for companies looking at a long-term relationship with its customer base. Second, initiate a strong customer relationship management that gives customers instant access to the sales. Third, provide customer service and billing departments that produce instant information when queried. Fourth, establish mass customization to meet the growing demand of

a global market and the neighborhood around the corner. Businesses that incorporate both the traditional brick and mortar and e-commerce methods of conducting business have discovered better strategies to attract and keep the customer.

### **Second Base, System Engineers**

Kalyanapasupathy [13] points to Del Allen's approach, a step-based product that combines the strengths of management and design to develop a system that will accomplish the goals of each. If system engineers don't develop along the strategies defined by management, the products success is hampered. Management must be the instigator followed by engineering and not the reverse.

The systems engineer sitting on second base should develop an infrastructure to support search engines, encryption, online payments, memory, directories and databases, software distribution, virtual organization, and e-mail to name a few. The systems manager will need to monitor and update payment programs and software, provide sufficient memory, and keeps the system running at all times. It is important that the engineer work closely with management to accomplish these tasks and support the designers waiting at third base [16].

The systems designer must interact with the web designer to facilitate the production of the end product. If the web designer puts together a functional web site that can't be supported by the system, all is lost [16].

Hurst and Gelladay's [11] statement, "When you go to drugstore.com and type in 'Tylenol' the search engine comes back with six pages of search results. That's a great way to give the visitor a headache." Knowing when "enough is enough" is not an easy task. The engineer who has conquered the "enough is enough" concept yet provides strong infrastructure capabilities, allows the designer to put together a web site that is both easy to navigate and user friendly. Keep in mind, when a business is devoted to sales and/or services it is important that the process used to make an online purchase be both simple and quick [17].

### **Third Base, Web Designer**

Management produced a strategic plan around the needs of the buyer and passed the plan onto second base and the system engineers to structure a system that allows the web designer the flexibility to create a web site to meet the buyer's needs. The web designer is now ready to design a web site without worrying whether the system will fail, thus creating a negative experience for the guest.

Third base isn't devoted to just web designers but also customer service personnel, sales, security, accounting, shipping, and just about all the remaining company personnel involved in producing a product for the buyer. Third base is the heart of the online company. Without Deming and Scherkenbach's third base personnel, the company is doomed to loose sales as noted by Amazon.com during the 1999 Christmas season. Amazon.com sold a record amount of books but forgot to tell notify the shipper. As a result, approximately 90 percent of the sales arrived

late or did not arrive at all for Christmas. One-time registration, shipping address, and credit card information is important to keep a buyer coming back [4], [8].

According to D'Hertefelt [5], many web sites are being created with the designer in mind and not the target market or buyer. Web sites that are buyer friendly and focus on the wants of the buyer can attract and keep the buyer. Remember, the competitor is just a click away and not the city blocks or miles of a brick and mortar store.

Web site designers have two options. The designer can either have graphics and slow time consuming downloads or not [6], [20]. If speed is the issue, then graphics should be avoided. Using Flash to produce drop-down menus that appear as the mouse navigates over a section can create a fun experience for the browser. Don't clog the browser's path with flashy presentations. Keep flash components simple yet effective and active. Tomsen [17] states "Create an experience and not a barrier."

Research has shown that 65% of site visitors leave the site and shopping cart prior to making a purchase [3]. Design the site around customer service, shopping carts, privacy policies, and credit card security. Identify and determine which of these should be included on the web site to attract the first time buyer and develop that buyer into repeat customer. Small businesses, one to nine employees, are not going online because of the cost and technology required in developing a web site and this issues needs to be addressed by management [8].

### **Home Plate, the Sale**

Customers in the face-to-face, brick and mortar, transaction are in limited supply and a good merchant wants to keep the business of every person walking through the door and develop the repeat customer. The local merchant must present an image of honesty and trustworthiness when negotiating a transaction with a customer. Representing the product correctly, making the purchase easy, and supplying a fast delivery service are musts if the merchant expects to stay in business any length of time (W. Chandler, personal communication, July 6, 1999). Nothing has changed; the different facets of the brick and mortar sale are the same as those used to make the Internet sale. The Internet just makes it faster and easier to complete the sale from the buyer's home or office.

The business that expects to succeed online must drill-down and address the following two issues: (a) past buying conceptions of the buyer and (b) buyer's social interaction with the medium, brick and mortar or Internet. Past conceptions can involve transaction security, customer service, and purchase/return issues [1], [2], [7], [9], [10]. The guest's social interaction addresses ease of usability. How easy is it to make the online purchase vs. going to the store or placing an order over the telephone or through a catalog? How much time does it take?

## **CONCLUSION**

The World Wide Web is a complex system that interacts with anyone who logs-on. The web is not directed to an individual living in Iowa, but is directed to a world audience and each site must be developed to attract not only a target audience but also, the largest target audience.

Management introduces the strategies, engineering develops the system to implement the strategies, and web designers transform the strategies into a viewable medium for the guest. If everything works and comes together to create a social experience and subjective satisfaction for the guest, the affect will be a sale that, in turn, increases the profit margin.

The buyer's experience can have both an intangible and tangible effect. The intangible effect is the entertainment derived from the site. In other words, it's the experience that creates the atmosphere that leads to the tangible and the buyer making the purchase.

## REFERENCES

1. Bagozzi, R. P. (1978, March/April). Marketing as Exchange: A theory of Transactions in the Marketplace. American Behavioral Scientist, 21, 535-556.
2. Bevin, N. (2001, January 22). How to Design a Customer-Friendly Online Store: Usability Guidelines. Serco, Ltd. Retrieved February 4, 2001, from <http://www.usability.serco.com/research/research.htm#Guidelines>
3. Boston Consulting Group, (2000). The State of Online Retailing 3.0. Boston Consulting Group. Retrieved July 2, 2000, from <http://www.Shop.org/nr/00/041700.html>.
4. Bulletinboards.com (2000). Other Features About Your Shopping Cart. Bulletinboards.com. Retrieved July 6, 2000, from <http://www.bulletinboards.com/OtherFeatures Shopping.htm>
5. D'Hertefeldt, S. (2000, June 9). 13 Objections Against User Requirements Analysis, and Why You Should Not Believe Them. InteractionArchitect.com. Retrieved July 27, 2000, from <http://www.interactionarchitect.com/articles/article20000609b.htm>
6. Daly, J. (1999, December 1). The \$6 Billion Experience Gap. Business 2.0. Retrieved July 4, 2000, from <http://www.business2.com>
7. Detweiler, M. & Omanson, R. C. (1996). Ameritech Web Page User Interface Standards and Design Guidelines. Ameritech. Retrieved March 1, 2001, from [http://www.ameritech.com/corporate/testtown/library/standard/web\\_guidelines](http://www.ameritech.com/corporate/testtown/library/standard/web_guidelines).
8. Forrester Research (2000, November 21). Buy.com Surges to No.1 in Forrester's Latest Electronics PowerRankings. Forrester Research. Retrieved November 27, 2000, from <http://www.forrester.com/ER/PowerRankings/0,2141,0,FF.html>
9. Ginsberg, L. (1999, November 12). E-commerce Building Blocks: Credit Card Payments. Webreview.com. Retrieved June 30, 2000, from <http://webreview.com/pace/print/1999/11/12/feature/index3c.html>
10. Human Factors International (2000). 10 Usability Principles to Guide You Through the Web Design Maze. Human Factors International. Retrieved March 1, 2001, from <http://www.humanfactors.com/library/10tips.asp>
11. Hurst, M. & Gelladay, E. (1999). White Paper One. Creativegood. Retrieved July 7, 2000, from [www.creativegood.com](http://www.creativegood.com) [2000, July 7].
12. Jones, C. L. (2000, April). Teaching our students about e-commerce. Business Education Forum, (4), 4.
13. Kalyanapasupathy, V., Lin, E., & Minis, I. (1998). Group Technology Code Generation Over the Internet. Department of Mechanical Engineering and Institute for Systems Research. Retrieved November 29, 2000, from <http://www.isr.umd.edu/Labs/CIM/profiles/lin/docs/gt/asme97-1c.html>.

14. Ogilvy, D. (1985). *Ogilvy on Advertising*. New York: Vintage Books.
15. Schultz, F. (1998). *Sources: Notable Selections in Education* (2<sup>nd</sup> ed.) Duskin/McGraw Hill, Guilford, Conn.
16. Sonderegger, P., Manning, H., Souza, R. K., Goldman, H., Dalton, J. P. (1999, December). Why Most B-to-B Sites Fail. Retrieved July 28, 2000, from <http://www.forester.com/ER/Research/Report/Summary/0,1338,8734,FF.html>.
17. Tomsen, M. L. (2000). *Killer Content: Strategies for Web Content and E-commerce*. Reading, MA: Addison-Wesley.
18. Tovares, J. (Series Editor). (1999, April 26). *The American Experience*. New York & Washington, D.C: Public Broadcasting Service.
19. Turban, E., Lee, J., King, D., & Chung, H. M. (2000). *Electronic commerce: A Managerial Perspective*. Upper Saddle River, NJ: Prentice Hall.
20. Waller, C. (2000, May). Keep It Simple. Black Enterprise, 30, 64.
21. Weaver, J., (2000, January). Don't Bad-Mouth the Banner. PC/Computing, 93.