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E/ESCWA/ICTD/2003/WG.1/CRP.20
3 February 2003
ORIGINAL: ENGLISH



ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA

Western Asia Preparatory Conference for the World
Summit on the Information Society (WSIS)
Beirut, 4-6 February 2003



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MEASURING BRICK AND CLICK SUCCESS IN THE RETAILING INDUSTRY



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PROBLEM SUMMARY

Retailers who are migrating from a traditional bricks-and-mortar strategy to a bricks-and-clicks strategy are focusing primarily on the direct gains to be made from selling merchandise online. However, an online presence may benefit an organization in ways that aren't fully captured by conventional web metrics. Developing appropriate metrics is vital for success in multi-channel retailing. By understanding this real return, an organization reduces the likelihood of under-investing in its online channel. Additionally, with this ability to measure and diagnose the enterprise-wide impact of the online channel investment, the organization gains significant competitive advantage. We believe the first step in the successful integration of online and offline channels is developing measurement and diagnostic solutions that can comprehend the impact that the online channel has on the entire company. This paper will examine the importance of measuring and understanding the interrelationship between the online and offline channels. The successful management of this knowledge provides a competitive advantage through channel synchronization.

INTRODUCTION

As e-commerce began to take off in the 1990s, it quickly became clear that this new “disruptive technology” was certain to transform retailing in a myriad of unanticipated ways. The growth of the channel was nothing short of astounding: Thirty-one percent of the American population was using the Internet by 1998: the number was expected to climb to 42 percent by 2000 and 56 percent by 2003, according to The Wall Street Journal¹. With the advent of the Internet, traditional retailers could no longer count on a captive customer base of loyal shoppers. Consumers now had a world full of shopping opportunities, and the easy availability of online price information meant that they could exert more control over how and where they spent their money. Furthermore, consumers could shop at all hours of the day and wherever they were, as long as they had access to a computer. The retail industry had already been shaken up in the 1980s by the rise of catalogue shopping and toll-free numbers, but the impact of the Internet Revolution promised to be far greater. In fact, Jupiter research has projected that online retail sales-defined as transactions in which consumers pay for a product online-will reach \$86.3 billion in 2003, up from \$17.3 billion in 1999².

Early on, several factors seemed to give the e-tailers a distinct edge over bricks-and-mortar retailers. Websites were not limited by shelf space and could easily outdo bricks-and-mortar stores in product selection and product information. Their sales and marketing reach was much wider than that of a traditional store. The convenience of 24-by-7 availability-the notion that a website is always open for business-coupled with the capabilities of personalizing the shopping experience-posed powerful attractions. Lastly, e-tailers were first-movers in e-commerce technology and website usability, which posed a significant barrier to entry for traditional retailers. It’s no wonder that industry experts panned many of the first websites launched by bricks-and-mortar retailers, calling them ugly and difficult to navigate.

However, more recently, traditional bricks-and-mortar retail organizations have begun to make a dent in the online advantage enjoyed by online retailers. Giga Information Group predicts that U.S. conventional retail chains will outsell the pure-play e-tailers in online sales in 2000 for the first time, and the gap is expected to widen in the future³. The bricks-and-mortar organizations that have achieved this success have done so by leveraging their strengths and creating a new retailing paradigm-a “bricks-and-clicks” strategy that melds the advantages of physical stores with those of cyberspace.

Indeed, bricks-and-clicks retailers can exploit a long list of built-in advantages. These include greater purchasing power with suppliers, greater brand recognition, and the existence of physical locations to compliment their online sales. Some e-tailers have recognized the power of brand recognition and have recently chosen to partner with bricks-and-mortar retailers to share in those benefits. Additional examples of the advantages of bricks-and-clicks retailers include the following:

- Customers. Last year, more than 50 million people shopped at JCPenney, compared with the 20 million who have made purchases in the four-year history of Amazon.com, the world’s largest Internet retailer⁴.
- Advertising. Bricks-and-mortar retailers are already advertising in multiple channels and can easily promote their online capabilities through media such as Sunday newspaper advertising supplements. Clicks-only retailers cannot leverage existing marketing channels in a similar fashion.
- Customer acquisition. On average it costs multichannel, store-based retailers \$31 to acquire a customer, compared with \$82 for clicks-only retailers, according to Boston Consulting Group⁵.
- Access to investment capital. Major bricks-and-mortar retailers have deeper pockets and can pay for online investments with store profits, while e-tailers typically must scramble for external sources of capital.
- Access to vendors. Major bricks-and-mortar retailers have strong established relationships with suppliers, which can prove strategic if supplies become tight.

- Distribution. Bricks-and-mortar retailers can use their existing logistics and distribution networks to service online channels, whereas the clicks-only companies must build or lease distribution networks.
- Instant gratification. Customers who don't want to wait for merchandise delivery can buy merchandise from a bricks-and-mortar retailer and take it home right away. This immediacy can also result in more impulse purchases. Customers can also see and touch the product and in the case of apparel, try it on for fit and suitability.
- Merchandise returns and exchanges. Bricks-and-mortar locations make it easier and more convenient to return merchandise-a particular advantage in jewelry, apparel, sporting goods and other merchandise that have high return rates.
- Online subscribers. An existing customer base gives a bricks-and-mortar retailer a ready pool of online users. For example, Kmart was able to sign up 3 million people to its free Internet service in several months. It took Buy.Com four years to obtain 2.5 million customers⁶.

Still, bricks-and-mortar retailers also face considerable challenges. Consider the experience of Wal-Mart, the leading discount retailer in America. Despite its success in the bricks-and-mortar world and its history of flawless execution, Wal-Mart was slow to move to online retailing and made several missteps in the first four years of online operations. Among the problems chronicled in a November 6, 2000, Business Week article⁷ were a poorly designed website, problems with package delivery, and an information system that wasn't properly integrated with the system used by Wal-Mart's fulfillment vendor. The lesson is that masterful execution in the offline world doesn't automatically translate to masterful execution in the online world.

An additional issue for the mass retailers is cannibalization, the risk that a new sales channel simply siphons off traffic from existing sales channels. "The easiest customers to migrate to your own web commerce platform are your own best customers," says Francis A. Newman, who stepped down as chief executive of JC Penney's Eckerd chain in the spring of 2000 to become CEO of the Internet retailer more.com. "This is a story that is yet to be fully understood by bricks-and-clicks retailers and the market," Mr. Newman noted in an interview with the authors of this paper⁸. "Unless you can develop a strategy that increases market share through that web enterprise, you have simply increased the costs of servicing those same customers."

For some retailers, cannibalization isn't as much of a threat as competition. When asked whether he feared that Staples' online sales might cut into store-based sales, the company's CIO Brian Light told CIO Magazine, "We'd rather cannibalize ourselves than have someone else come in and do it."⁹

While it may be too soon to declare that traditional retailers can overcome all of these challenges, e-tailers are acknowledging the competitive threat by expanding their own operations into the physical world. Retailers-Amazon.com for one-have spent significant sums of money erecting physical infrastructure. They've also adopted some of the sales promotion tools of traditional retailers-Amazon.com and others mailed catalogues out in the 2000 Christmas holiday season. As writer Lisa Yoon noted in eCFO magazine in March 2000¹⁰, "Until now, companies have been categorizing themselves as either an Internet company or a traditional bricks-and-mortar business. That's because many Internet companies were afraid that their stock valuations would be hurt if they were tied to traditional bricks-and-mortar businesses. But increasingly, integration is becoming the key to survival."

As the next phase of the Internet evolution blends the physical and virtual retailing experience, one of the most critical challenges retailers confront is how they will measure online success. Unfortunately, the benchmarks that are most frequently used in evaluating online success fail to capture a key piece of business intelligence needed by bricks-and-mortar retailers. Those benchmarks don't measure how an online presence influences offline business and supports the overall business strategy. The central question is

whether the retailer's website is stimulating offline sales in addition to improving online sales revenues. Without such information, a retailer cannot determine whether a web presence is creating market share by driving offline and online sales through its online presence or simply converting in-store shoppers to online purchasers.

Obtaining information about the interrelationship between online and offline sales is a strategic issue as well as an execution issue. This information enables a retailer to create an integrated view of its customers. The following passage from Intelligent Enterprise¹¹ helps to explain the interdependencies of the online and offline channels and the potential value in understanding this interrelationship:

One of the greatest challenges ... is the integrated view of customers. So far, most of what we have been hearing and reading centers so much on technological issues, such as how we integrate and optimize the knowledge gleaned from virtual interactions (clicks) with our physical operations (bricks). One goal of this work is essential: the creation of an enterprise that can focus on the state of one customer at a time. But ... before you can optimally address the technological issues involved, a handful of fundamental strategy issues beg your attention ... The losers will be those companies that fail to integrate everything they know about their customers. The real power is in the melding of bricks-and-clicks to create a customer-focused, full-service, anywhere-anytime-anyhow, wholly integrated enterprise.

I. BRICKS-AND-CLICKS STRATEGIES

In order to understand the complexities of measuring the impact that online investments have on an organization, it is critical to understand the strategies that bricks-and-clicks retailers have employed to date. It is evident in the variability of the organizational models that the market has not declared a winning formula. In our opinion, the successful management of the interrelationships of these channels is key to success, and this success is contingent upon the design of an integrated knowledge management and measurement system. Companies are having mixed degrees of success in integrating their online and offline channels, as the following section of this paper explains.

One of the biggest "bricks-and-clicks" success stories to date is JCPenney.com, which became the Internet's largest apparel retailer in late 1999. Online sales are expected to exceed \$300 million in 2000 and are projected to reach \$1billion in 2002. In an interview with eCommerce Business magazine¹², JCPenney.com President Paul Poppajohn attributed success to the company's "three-tail" strategy, which acknowledges that customers who buy merchandise at JCPenney.com, in catalogues, and in stores spend four times more at Penney's over the course of a year than people who shop only in stores.

Other retailers operate their websites as separate businesses. Macys.com and Bloomingdales.com, both part of Federated Stores, are run by the parent company's direct-to-customer division-Federated Direct, which also operates the company's mail catalogue businesses. Similarly, Nordstrom.com and Nordstromshoes.com are both part of Nordstrom's Catalogue/Internet division. (As is often the case in the bricks-and-clicks business, revenue data for the online operations are not readily available from either company.)

Target has taken a different approach, keeping its Internet operations entirely in-house. Jerry Storch, president of financial services and new businesses for Target, told The Standard¹³ that the company, whose parent is Dayton Hudson, was advised to spin off its website as a dot-com, but "we never took the option seriously" because the company viewed Internet operations as central to its business.

Sears, like Target, decided to keep Internet operations in-house. After an initial launch in 1996 as an information-only website, Sears followed up in 1997 and each year thereafter, adding new products and product lines to its expanding site. Sears spokesperson Ann Woolman explained to the authors of this paper that Sears recently began tracking offline sales that were prompted by online searches. "We track offline sales prompted by on-line activity through surveys taken in-store," she said. "These surveys offer customers an additional discount if they complete the survey." In addition, Sears has seen a marked increase in the number of customers who bring a printed copy of an item they want to purchase, an indication that they comparison-shopped on the Internet first. Although Sears would not comment on specific revenue numbers or on-line growth expectations, Ann Woolman did indicate that as of December 2000, "Sears on-line was still not breaking even when measured with traditional metrics. We are building market share with Sears.com. Since we discontinued our Sears Big Book catalogue prior to launching Sears.com we can be sure we are not cannibalizing an existing catalogue business."

In 1999, Kmart launched its Internet channel, BlueLight.com. Although BlueLight.com is a separate corporate entity, Kmart continued to hold a 55% interest in the start-up. It describes its business model as "sticky bricks"-which BlueLight.com describes as "the full integration of online and offline assets to fully satisfy consumers' shopping needs." Kmart got serious about its web presence in 1999 when it hired high-profile Internet entrepreneur Mark Goldstein as its CEO. It was Mr. Goldstein who worked with Spinway and Yahoo to market a plan to offer free Internet service through BlueLight.com. Just 29 weeks after the initial offer, the Kmart Internet service provider had more than 3 million subscribers. Mr. Goldstein wants the relationship between Kmart and BlueLight.com to be seamless so that "whether they're on the computer or browsing aisles at Kmart ... we want to give the customers superior products and services."

One thing seems clear: Online retailing is still in its infancy, and the major retailers aren't finding it easy to nail down the winning approach. Wal-Mart is hoping that its third attempt at a website-its first was launched in July 1996-will establish Wal-Mart as a formidable online retailer. Target just unveiled its third-generation site in October 2000. It's very likely that they and other mass retailers will continue to refine their strategy for some time to come.

But good execution is as critical as the right strategy. To execute their bricks-and-clicks strategies successfully, retailers must come to terms with some daunting business challenges, and these challenges may be more difficult than the technological challenges. According to Intelligent Enterprise¹⁴, the following are the greatest hurdles in executing a successful bricks-and-clicks operation:

- Measurement of results. Retailers must rethink who gets the credit for success within the business and how to measure which strategies are working.
- Command and control. Instead of focusing on who's in charge of products, companies must ask another question: "Who's in charge of this particular customer's business?"
- Corporate culture. Everyone in the operation must recognize that all customers are equal.
- Channel conflict. New and robust channels offer added sales opportunities along with added opportunities for cannibalization-and some channels may be more vulnerable than others.
- Outsourcing of additional customer services and products. Retailers may need to wrestle with issues of how to integrate with partners.
- Management of data accuracy. Retailers must make best use of relevant data in a timely manner.
- Sales-force compensation. New questions may arise over how to alter incentives to foster motivation, cooperation, and desired results.
- Privacy. Retailers must ensure appropriate use and safekeeping of customer information.

Strategy and execution both resolve around one question: How can the bricks-and-clicks retailers create a multi-channel enterprise that is greater than the sum of the individual channels? To drive success, retailers must begin by creating a measurement system that allows them to see the online and offline channels as interdependent systems. To explore this issue, we will begin by gaining an understanding of how web success is measured today.

II. HOW E-BUSINESS SUCCESS IS MEASURED TODAY

The axiom, "Measure for results," rings as true in the online arena as it does offline. In a knowledge-based economy, the importance of good, timely, relevant data cannot be overstated. In fact, as Xerox's Knowledge Street website puts it, "Knowledge is becoming companies' most valuable asset. It is the raw material that knowledge workers, who make up one-third of the workforce, use to make decisions." Website technology makes it possible to gather a wide range of data, including customer information, site performance and usability, and revenue figures. Today's technology makes it possible to measure things with a precision that once would have been unimaginable. However, this overwhelming amount of data does not necessarily add value unless it is converted into knowledge. The management of this data has resulted in the emergence of knowledge management as a discipline. Knowledge management is defined as a cross-disciplinary field that enables organizations to improve the way they create, adopt, validate, share, and use knowledge in order to obtain their goals faster and more effectively¹⁵.

However, the vast capabilities of digital technology also can pose considerable challenges for businesses. When it's so easy to measure everything, how do you separate the wheat from the chaff? In his landmark work, *Recreating the Corporation: A Design of Organizations for the 21st Century*¹⁶, Russell L Ackoff asserts that today's decision makers suffer from information overload—too much chaff—because of the proliferation of data processing and communication media.

... Instead of devoting large amounts of resources to generating and distributing more information, as is currently the case, a substantial portion of these resources should be devoted to developing practical ways of filtering out irrelevant information, and condensing useful and relevant information.

Let's examine the range of data that can be mined from an online sales channel. Businesses recognize several primary reasons for online measurement systems. :

- Site improvement. Web designers rely on data about user visits to create sites that are easier to navigate and "stickier"—more likely to keep users at the site for longer.
- Budget justification. Website data can prove that sites and advertising campaigns are meeting set goals.
- Traffic assessment. Website data about users, their preferences, and their habits can be used to sell or buy advertising space and/or to make decisions about the computer- and customer-support systems.
- Customer profiling. Data about users enables sites to create customized content or target advertising efforts.¹⁷
- Valuation. Data such as the number of unique visitors and sales per visitor are being used in the valuing of Internet firms.

As Exhibit 1 shows, the most commonly tracked measure of website traffic is the number of "unique sessions" or "unique visitors"—these are typically defined as a collection of page requests from a single user within a specified time period. Another common measure is "hits." (A hit is a single request from a user for a single item from a web server; thus, a page that contains three graphics would register as four hits—one hit for the HTML page and one for each of the graphics.) Just 30% of the websites surveyed by Forrester tracked actual sales transactions.

At the time of the survey described in Exhibit 1, dot-com companies—and the stock market—were putting more emphasis on creating a web presence, tracking unique visitors, and acquiring market share than measuring sales. Exhibit 2 indicates that Internet measurements have become more sophisticated and focused. Data is being collected in specific categories:

- Customer Identity metrics help in the development of specific targeting strategies, fueling marketing efforts as well as cross-selling.
- Transactions statistics are used for validation of a site's effectiveness, sales performance, and online product line-up.
- System Throughput metrics gauge the technical readiness of the system, which helps pinpoint when increased server capacity will be needed.
- Basic Traffic metrics such as "user click stream" (how a user navigates through the site) and referring URLs (recording the last site visited by a user before he came to your site) indicate needs for improvement in site navigation and help marketers assess whether banner ads on other sites are effective in attracting traffic.

Many retailers say they use hits, page views, and session length as measures of the success of their websites (Exhibit 3). But, in fact, those tools are at best an incomplete measure of success for bricks-and-clicks retailers because they treat the Internet retailer or the Internet division of the bricks-and-mortar retailer as a wholly separate business, ignoring the extent to which web visits have resulted in offline sales.

As technology improves and e-business continues to evolve, analysts are increasingly expressing dissatisfaction with traditional metrics as e-business-tracking tools. Some analysts feel that it's too difficult to calculate the impact of an Internet investment precisely because it is intertwined in so many functions of the business, namely sales, marketing, procurement, and distribution. Traditional return-on-investment (ROI) measures for information technology projects tend to be internally focused, generally lacking the bandwidth to measure a wide array of benefits and costs.

ROI measurement systems can add some value because they handle the more tangible types of benefits and costs. Direct online sales, fees for web-based services, and banner advertising represent direct benefits of a website that are easily measured. Cost savings that are measurable include reduced customer service headcounts, reduced print volumes for catalogues, and the scaled-back use of value-added networks. The challenge occurs in weighing "softer" benefits and costs, such as those that arise from the opportunity to forge new business relationships with customers and suppliers.

Exhibit 1. Most Commonly Collected Website Data

Measures	% Collecting Information
Traffic Measures:	
Unique sessions	82%
Hits	78%
Page Views	62%
Click streams	54%
URL of origin	40%
Other measures	
E-mail queries	42%
Collected visitor data	38%
Sales transactions	30%
Banner ad impressions	20%
Downloads	14%

Source: Forrester Report¹⁸

Exhibit 2. Sources and Uses of Common Internet Measures

New Internet Measurements

	Specific measures	Where they come from	How they are used
Customer Identity	<ul style="list-style-type: none"> Name and address Account number E-mail address Demographics and interests Purchase history 	<ul style="list-style-type: none"> Free-offer registrations Transaction database Marketing database Server log files 3rd party profiles 	<ul style="list-style-type: none"> Develop targeting strategies Order marketing priorities Fuel direct marketing efforts Enhance content design
Transactions	<ul style="list-style-type: none"> Sales transaction records Registration forms E-mail queries Software downloads Online document requests 	<ul style="list-style-type: none"> Transaction database E-mail server Message server Web server FTP server 	<ul style="list-style-type: none"> Validate effectiveness Track online sales Staff online help desk Justify ad spending Decide online product lineup
System Throughput	<ul style="list-style-type: none"> Server throughput File delivery times Broken links Error messages 	<ul style="list-style-type: none"> System management software Server log files Network packet software 	<ul style="list-style-type: none"> Locate server bottlenecks Aid capacity planning Minimize wait time
Basic Traffic	<ul style="list-style-type: none"> File requests/click streams Ad views Domain of origin Most popular entry-exit pages Referring URLs, keywords 	<ul style="list-style-type: none"> Server log files Network packet sniffer Web server monitor 	<ul style="list-style-type: none"> Gauge traffic volume Identify traffic sources Assess ad placement options Improve navigation Identify content trouble spots

Source: Forrester Report¹⁹

Exhibit 3. Types of Metrics Used to Measure Web Success

What metrics do you use to measure your website's success?

Metrics Used	Percentage of Website Success
Hits	82%
Page Views	80%
Session Length	66%
Visitor Count	64%
Ad Banner Click-throughs or referring URL	38%
Sales or Revenues	34%
Registered User Visits	24%
Look-to-Buy Ratio	12%

How do you use these metrics?

Metric's Uses	
Report Overall Traffic Level	42%
Determine Success of Ad Campaign	40%
Report on Content Popularity	40%
Adjust Site Navigation	30%
Report Data About Site Sales or Leads	28%
Adjust Site Content	18%
Report Demographic Data About Site Users	12%
Do Not Use Metrics	10%
Quantify Cost Savings	8%

III. ONLINE/OFFLINE SYNERGIES

Retailers increasingly are recognizing that there are important synergies to be obtained by having a multi-channel enterprise. "Channel Surfing," a study released in August 2000 by the National Retail Federation²¹, found that consumers' shopping and buying behavior is significantly influenced by a multi-channel experience. Among the findings:

- Thirty-four percent of store shoppers looked for or purchased something in-store that they had seen on the retailers' website.
- Fifty-one percent of online shoppers who received the retailer's catalogue looked for or bought something online that they had seen in the catalogue.
- Twenty-seven percent of store shoppers looked for or bought something online that they had seen in the store.

"Multi-channel retailers who can effectively harness the power of cross-channel integration have the opportunity to develop a significant competitive advantage over those who treat their channels as separate silos," said Jim Okamura, senior partner with J.C. Williams Group, the firm that conducted the study.

The report found that multi-channel shoppers are more valuable to retailers than single-channel shoppers. Those who visit a retailer's website and then buy from the retail store spend 33% more on an annual basis in-store, compared with the retailer's typical store customers. Sears' experience bears this research out: According to Sears spokeswoman Ann Woolman, "Sears found that the average customer who shops at Sears.com visits a Sears offline store once more annually when compared with an average Sears offline customer."

Jupiter Research has been a leader in examining the potential value of online/offline synergy. Worldwide retail e-commerce sites are estimated to drive nearly \$34 billion in online sales in 2000, an increase of over 100% from 1999²². While this represents tremendous year-over-year growth, only 1% of total retail sales are made online. In addition to direct sales, a retailer's website can influence the products a consumer purchases, how much a consumer pays and where the consumer makes the purchase.

The following statistics from Jupiter Research's June 2000 report, "Online Influencing Offline: The Multichannel Mandate"²³, "illustrate the influence the web is expected to have on offline sales:

- Transactions completed online will drive nearly \$200 billion in online sales in 2005, but consumers will spend more than \$600 billion as a direct result of web research.
- By 2005, 17% of all spending will be directly influenced by online research.
- Thirty-two percent of all online buyers look for the most convenient offline physical location and almost as many seek the offline location with the lowest price.
- Of the online buyer population, 73% have used the Internet to research offline purchases. Online buyers include individuals that have made at least one online purchase.
- The influence of various channels upon one another presents multichannel companies with the opportunity to capture a greater share of the online consumer's wallet assuming all channels work well together.

Currently, most multichannel companies measure the success of their Internet channels by revenue contribution and the number of consumers attracted to the site. The risk is that this analysis can lead to an underinvestment in the Internet channel because it fails to recognize the amount of offline sales that the Internet channel directly drives. In 2000, approximately \$34 billion will be purchased directly from the

Internet channel, yet according to Jupiter Research over \$200 billion will be purchased this year as a result of web research²⁴. Jupiter's research reinforces the point that retailers must not simply focus on the revenue and bottom-line value delivered through the online channel alone. They must link their multiple channels and drive customer satisfaction and market share by driving offline customers to their website, and vice versa. Evidence suggests that consumers spend a great deal of time researching products, prices, and availability online. Historically, this type of data gathering required the involvement of a sales representative and a customer service representative; thus, a robust website can significantly reduce overall sales and support costs for the retailer. In other words, an online presence not only drives offline purchases, but it potentially reduces overall costs.

Understanding how the online channel is influencing the offline business enables a retailer to better position both its online and offline channels by enhancing synergy between the two. The ultimate result: more value for the customer and increased market share for the retailer. To illustrate how this is beginning to emerge in the marketplace, consider Sears.com. Sears customers can compare different products online before clicking to buy appliances or tools. But many users use the site to gather information before heading to their local Sears store. As a Sears sales Vice President Dennis Honan told CIO Magazine²⁵, "We hear story after story about customers who go to the website, research what they want, print it out and bring it to the sales associate." In this scenario, not only did the existence of the website drive an in-store sale, but it also reduced the selling cycle time and expense. These hidden benefits are maximized when the online and offline channels are integrated seamlessly-not left to compete with each other in "channel conflict."

To summarize, we have established three important concepts for retailers:

- A bricks-and-clicks strategy leverages the strengths of both the traditional bricks-and-mortar companies and the pure-play retailers.
- Successful bricks-and-clicks organizations will be the ones that can broaden their view of what constitutes success online and build an integrated web presence intended not only to capture online transactions but also to influence the consumer's choice of products and merchant for offline transactions.
- Traditional measurement systems do not measure all of the benefits and cost savings attributed to online and offline integration. An effective knowledge management and measurement system is essential to understanding the interrelationship of the channels. This understanding creates a competitive advantage.

With so much hinging on the synergy between online and offline, an organization that can creatively identify and correlate its online browsers and purchasers with its offline purchasers stands to gain a significant competitive advantage.

IV. SOLUTIONS

It is essential for multi-channel, bricks-and-clicks retailers to understand the true return on their online channel investments, yet as explained already, organizations are analyzing the online return on investment in terms of the online channel alone. The defect in this approach is that it fails to acknowledge a core tenet of systems thinking: that business organizations are systems of interdependencies, not mutually independent processes and transactions. Organizations that seek to understand the performance of the overall enterprise by analyzing the performance of the parts (e.g., individual sales channels) will not capture the impact of the interdependency of the parts.

In his book, *Systems Thinking: Managing Chaos and Complexity*, Jamshid Gharajedaghi explains that business measurement systems can be viewed in terms of two elements:

- Performance Criteria. “What is to be measures and why?”
- Performance Measure. “How should it be measured?”

Unfortunately, businesses often approach measurements in a misguided way, he says. Prof. Gharajedaghi might as well have been discussing bricks-and-clicks retailers when he observed:

Relevancy is the most important concern in selecting performance variables. Traditionally, the overriding concern has been with the accuracy of measures. Since we find it difficult to accurately measure what we want, we have chosen to want what we can accurately measure. Unfortunately, the more accurate the measure of the wrong criteria, the faster the road to disaster. We are much better off with an approximation of relevant variables than with precise measurement of the wrong ones²⁶.

Applying this concept to retailing in the new economy, companies should ensure that their measurement criteria for success evaluate online and offline sales and the relationship between them as one unified system. According to Jupiter Research²⁷, only one in five firms is currently attempting to track the impact of an online presence on offline sales. Our research suggests that solutions for measuring the return of online investments to the enterprise as a whole are just beginning to be designed.

There are multiple tiers of possible solutions, and we will outline them next. They range in complexity and versatility. The first solutions noted below will enable organizations to access the amount of business being driven to their physical store locations from online browsing. However, these solutions do not provide a full suite of customer-specific data to facilitate a robust customer relationship management program. For that reason, we will also propose a more complex solution and discuss that approach in greater detail.

A. ONLINE MARKETING SOLUTION

Suppose that a bricks-and-clicks retailer runs an online promotion. The promotion requires the online browser to either purchase the products directly online or to print a coupon (or receive a unique code number) that can be redeemed at any of the retailer’s physical stores. In order to obtain the coupon, the user is required to complete a quick registration, whereupon the user is assigned a customer identification number. When that coupon is redeemed, it can be counted as an offline transaction that has resulted from online browsing. Of course, the retailer might also wish to provide additional incentives to encourage offline shoppers to make online purchases, thus creating a continuous purchasing cycle.

Strengths: Online promotions-obtainable only on the retailer’s website and redeemable only in offline stores-enable the retailer to isolate and quantify the offline purchases attributable to an online promotion. This serves two objectives: It provides a measurement tool and also creates increased consumer awareness of the multiple channels. By requiring a registration, the retailer also obtains knowledge about the consumer that can facilitate personalized advertising, cross-selling of products, etc.

Weaknesses: The online promotional strategy in this scenario does not provide a complete customer profile because there is no in-store measurement system to capture the corresponding offline purchases and link that information to a particular web shopper. The lack of such information prevents a retailer from creating a personalized relationship with the customer.

B. ONLINE PRODUCT SELECTION

Now, suppose a retail grocery chain's website takes an alternative approach. An online browser can register as a unique user, fill up his virtual shopping cart with goods, and complete a virtual sale at locked-in prices. The shopper then prints out the order with a list of bar codes, descriptions and prices. As part of the registration process, the shopper provided his zip code and selected a preferred store site. His completed order is sent electronically to the store. The customer can choose to do one of three things: 1) go to the store within a set time frame to pick up the goods; 2) pay an extra fee to have the order fulfilled and ready for pickup at the store at a stated time; 3) pay an additional fee to have the order fulfilled and delivered. In any of those scenarios, the order is paid for online.

Strengths: This solution allows a supermarket to track consumer buying history and preferences—unique information that can allow the grocery chain to personalize its marketing to that consumer. A buying experience that offers such convenience could foster strong customer loyalty. At the same time, this solution would also put the grocer in a better position to predict product demand and improve the management of its supply chain. Lastly, the ability to quantify the impact that the online channel has on the enterprise as a whole will help drive appropriate future decisions about online investments.

Weaknesses: This solution requires a seamless integration of multiple channels and presents some technological challenges. While the consumer benefits from the convenience of the buying experience and the prefulfillment of goods, the retailer does not have the ability to provide enhanced services (e.g., automated shopping lists, just-in-time supplies, emails about special sales promotions).

C. TOTAL CUSTOMER RELATIONSHIP MANAGEMENT (CRM) SOLUTION

Suppose a retailer uses its existing marketing and promotional programs to drive consumers to its website. It might include its web address on television, newspaper, and magazine advertisements. It might increase site visits by partnering with certain online powerhouses or portals. It could also offer in-store promotions that are redeemed via online purchases. Major retailers could create incentives by offering discounted Internet access to customers who register on the website and obtain a retail customer number.

A customer who registers on the website is assigned a unique identifier, which enables the retailer to track that consumer's online purchasing behavior. The retailer could employ solutions similar to those noted in previous solutions—eg., offering promotional materials to entice the user to purchase online and offline; requiring the user to identify his offline purchases in advance. However, these solutions do completely enable the retailer to fully comprehend the interdependencies of the channels and to assess the enterprise-wide return on the online investments.

Retailers can track the offline purchases of customers who pay with a retailer-issued credit card, but they have no easy way of tracking purchases by customers who pay by cash or with a bank credit card or other non-retailer- issued charge card. A retailer could offer incentives at the point of purchase to encourage customers to identify themselves with a unique customer number. The incentives could include point-of-sale discounts, volume rewards, and partnership programs (e.g., frequent flyer miles for certain purchase levels, special promotions and services, improved financing rates, etc.). However, at this stage the retailer would still encounter offline shoppers that it could not identify. Depending on the size of this population, a retailer would have to perform a cost-benefit assessment to determine how important it is to identify those consumers. We suspect that the population of non-online shoppers and offline consumers not possessing a store-issued charge card would be considerable. Therefore, there could be important payoffs in being able to uniquely identify such a consumer.

A number of options are available to retailers who desire such customer information. Clerks could request customer phone numbers at the checkout and input this into the order system. Organizations could use warranty information to obtain customer names. Retailers might even distribute free customer cards that track an individual's purchases that are swiped across a scanner at the point of purchase to accrue points towards certain benefits (discounts on future purchases, discounts at partner companies and the like). The goal of any of these approaches is to capture the offline purchaser's uniqueness in a manner that is acceptable and not intrusive to the consumer.

At this point, the retailer would have the ability to aggregate data about nearly all of a consumer's purchases. By creating common data fields from all of the consumer input points (web browsing, online purchases, offline purchases) critical data could be captured and cross-referenced. The retailer would possess enough information to personalize future marketing efforts to the individual customer. Consider the business intelligence that could be mined from this database, enabling the retailer to better serve its customers:

- What if a retailer knew that a particular customer purchased the Star Wars trilogy videos and a Sega offline and, based on her purchase history, was inclined to buy books and compact discs online? The retailer could provide that customer with individualized coupons/discount information for the newest Star Wars novel in paperback, the latest Star Wars video game for Sega, or perhaps information on a special Star Wars exhibit at MGM studios. (Disney, of course, would be expected to provide the retailer a referral fee).
- What if a bricks-and-clicks retailer introduced a new series of snow blowers on its website and tracked the amount of kits and time spent per page as compared with other products on the site? Suppose the retailer learned that customers typically spent two extra minutes on this page, printed the snow blower specification sheets, and then brought them to the store to make in-person purchases? This behavior pattern could reduce sales and customer-support cycle times, putting the retailer in a position to either reduce or reallocate its existing sales and support resources.
- What if a retailer learned that offline sales for a product increased when that particular product was featured within two clicks of the home page instead of four? In today's environment, a retailer can only speculate about the impact of website product placement on offline sales. By developing a diagnostic system to measure such factors, organizations could run much smarter and more focused businesses.

And that's just the beginning. There's no end to the mission-critical intelligence to be gained by integrating and measuring the interdependency of the online and offline channels. This data is the sort of business intelligence that any bricks-and-clicks retailer needs in the New Economy. Some questions that can be answered definitively are:

- Are we losing our offline consumers to our competitors, or they are migrating to our online channel?
- Has the total revenue for both online and offline exceeded the traditional offline sales for certain products, customers, markets, etc.?
- What is the optimal channel for certain product types?
- Who are our best customers?

It's important to recognize that many of these solutions raise potential privacy issues. Privacy is an increasingly pressing public policy issue as more and more worldwide consumers migrate to the Internet across all demographics. For many people, the idea of personalized marketing seems a little too intrusive. Security issues also arise when customers are asked to provide personal information such as Social Security and credit card numbers. Retailers should not take these concerns lightly even if they regard information-gathering as a way to serve customers more effectively and more efficiently. We will examine the ethical, technological, and managerial implications of these recommended solutions in greater detail in Modules II and III.

V. CONCLUSION

In today's fast-paced, knowledge-based economy, having access to good data is a critical success factor for any business. While retailers have long recognized the value of timely, relevant customer data in running their businesses effectively, they face a new unique challenge in the dynamic New Economy. Bricks-and-clicks retailers need to be able to precisely gauge the impact of an online sales channel. As we have seen, the tools that are currently available are not adequate. What are needed are tools that can be used as part of an integrated approach to bricks-and-clicks retailing.

Organizations that can capture online and offline transactional information and then seamlessly integrate the customer's buying experience between the two channels will have a key competitive advantage in the future. Significant advantages include the following:

- Retailers will be positioned to perform very personalized advertising and customer relationship management (CRM) by knowing their buyers' preferences and behaviors.
- Retailers will be better able to allocate human resources and capital if they have a full understanding of the interdependencies of the channels. For example, if an organization discovers that its offline sales are driven by a consumer's online research to a greater-than-expected extent, the organization can shift a greater portion of its investment towards its online channel.
- Organizations will be able to drive efficiencies in overhead by using the strengths of one channel to overcome the weaknesses of the other. For example, retailers may be able to reduce the sales and customer support expenses in their bricks-and-mortar stores if they can encourage customers to obtain product information online before coming to the store.

Maximizing the synergies between online and offline channels is all about capturing the relevant information and translating that information into business intelligence. Armed with this information, business decision makers can see the business as a focused, disciplined, and dynamic whole-not a collection of disjointed parts.

Footnotes

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