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ABSTRACT

This paper examines the value of e-commerce in today's global economy while also identifying e-risk. The value of e-commerce includes its instrumental role in the global marketplace, the evolution of virtual businesses, and the unique opportunities it provides for linking marketers with consumers. Research on e-risk includes the investigation of cybercrime and the use of Web assurance services to combat security breaches. In order to understand the nature of e-risk, the origins of e-commerce are briefly described. Consumer fears concerning online privacy and security risks can cripple the growth of e-commerce. A survey was conducted regarding e-commerce transactions and the impact of having Web assurance seals displayed on websites. Forty percent of the respondents had concerns about the security of a website. Nearly all of the respondents, 94 percent, felt that the presence of a Web assurance seal on a website was influential in their purchase decision making.

INTRODUCTION

According to *The Economist*, e-commerce will be a universal bright spot for retailers in 2011. Electronic commerce, also called e-commerce, is increasing around the globe. E-commerce consists of electronic business transactions related to the purchase and delivery of goods and services. E-commerce includes retail trade between business and consumers (B2C) as well as business-to-business (B2B) trade. Businesses use the Internet, extranets, or electronic data interchange (EDI) in carrying out e-commerce.

E-commerce is now being used in all types of business, including manufacturing companies, retail stores, and service firms. E-commerce has made business processes more reliable and efficient. Consequently, e-commerce is now essential for businesses to be able to compete in the global marketplace. The purpose of this paper is to add to the body of knowledge regarding the origins of e-commerce and the value of e-commerce to marketers, while also identifying security measures, such as Web assurance services, for dealing with e-risks.

The value of e-commerce includes its fundamental role in today's global economy, the evolution of virtual businesses, and the unique opportunities it provides for linking marketers with consumers. Research on e-risk includes the investigation of cybercrime and the use of Web assurance services to combat security breaches. Recognizing the value of e-commerce is easy, but to comprehend the risks it entails, it is helpful to understand how e-commerce came into existence.

TIMELINE OF E-COMMERCE

E-commerce can be traced back to the first electronic computers, which were built in the 1950s (Smith, K.T. 2008). However, e-commerce did not gain extensive popularity until development of the World Wide Web in the 1990s. A timeline of events concerning the Internet and e-commerce is provided in Exhibit 1 below.

Exhibit 1

A Timeline of Events Regarding the Web and E-Commerce

1946 The first electronic computer, ENIAC, is constructed at the University of Pennsylvania.

1957 The Soviet Union launches Sputnik, the first artificial satellite.

1958 To counter Soviet technological advances, the U.S. forms the Advanced Research Projects Agency (ARPA), with the Department of Defense, to develop U.S. leadership in science and technology applicable to the military.

1969 ARPANET, the forerunner of the Internet, established with four nodes: UCLA, Stanford, UC-Santa Barbara, and University of Utah.

1970 First applications of electronic data interchange (EDI).

1973 First international connection to ARPANET, University College of London. Initial work on a transmission protocol (later to be called TCP/IP) that allows diverse computer networks to interconnect and communicate with each other.

1974 BBN opens Telnet, the first commercial version of ARPANET.

1982 Transmission Control Protocol (TCP) and Internet Protocol (IP) established by ARPA. This leads to a definition of an "internet" as a connected set of networks, specifically those using TCP/IP, and "Internet" as connected TCP/IP internets.

1983 Internet Activities Board (IAB) is created.

1984 Science fiction author William Gibson coins the term "cyberspace" in his novel, *Neuromancer*. Internet host computers (computers with registered IP address) exceed 1,000.

1987 Internet users exceed 10,000.

1988 Internet worm disables 6,000 of 60,000 Internet hosts. A Cornell University graduate student created the worm. Infected computers were connected through ARPAnet and other E-mail networks in the Internet loop. Some of the US's top science and research centers were affected.

1989 Internet users exceed 100,000.

1990 The ARPANET is shut down.

1991 Sir Tim Berners-Lee, working at CERN in Geneva, develops a hypertext system to provide efficient information access. He posts the first computer code of the World Wide Web in a relatively innocuous newsgroup, "alt.hypertext." Later, people refer to the Internet itself as the Web.

1992 World Wide Web released by CERN.

1994 Pizza Hut sells pizza on its website.
First Virtual, the first cyberbank, opens.

1997 Inception of business-to-business (B2B) e-commerce.
US Postal Service issues electronic postal stamps.

2000 Internet users exceed 360 million.

2011 Internet users tally almost 2 billion. Users in over 200 countries are connected.

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Sources: Smith et al. (2010) and Internet World Stats (2011).

On a daily basis, the Internet is used by hundreds of millions of people around the globe. The Internet is made of thousands upon thousands of computer networks built by business entities, universities, and government agencies. The Internet is connected by a high-speed, long haul "framework" originally paid for principally by the US National Science Foundation.

Technology has become widely accepted by all age groups of society. The current generation cannot envision a world without computers, the Internet, email, and cell phones. A rapidly growing segment of computer-users is senior citizens. E-commerce is how commerce is done in the twenty-first century.

VALUE TO THE MARKETER

E-commerce provides a new venue for connecting with consumers and conducting transactions. Virtual stores operate 24 hours a day, 7 days a week. Many virtual retailers represent a single company while others, such as Top Online Shopping (toponlineshopping.com), represent a consortium of companies. Amazon (amazon.com) claims to be "the earth's biggest bookstore," but it also sells a myriad of other products. With the use of a powerful, efficient search engine, competitive pricing, and product suggestions, customers find these e-commerce sites to be an easy and convenient way to make exchanges, either locally or from across the globe.

Global Trade

E-commerce is one of the major factors in the globalization of business. Other factors include decreases in trade barriers, globalization of capital markets, the movement toward International Financial Reporting Standards (IFRS), and Internet financial reporting. Internet financial reporting has been particularly helpful to e-commerce companies (Hunter and Smith 2008). IFRS is a global standard for accounting and financial reporting (Smith 2008).

The annual growth rate of e-commerce globally has been estimated as high as 28 percent, while some individual countries have much higher growth rates. For example, in India, which has a younger than average market, the e-commerce growth rate has been projected as high as 51 percent. Even in established markets, like America and Western Europe, e-commerce is expected to grow at an annual rate of 10 percent (*The Economist* 2010).

In an examination of B2B e-commerce in Ireland, Onofrei and Nedelea (2007) found that supply chain B2B e-commerce helps minimize complexity and increases flexibility, while enhancing a higher degree of communication and operational efficiency. Kanungo (2004) examined synchronization of e-commerce and corporate strategy within the pharmaceutical industry. After reviewing

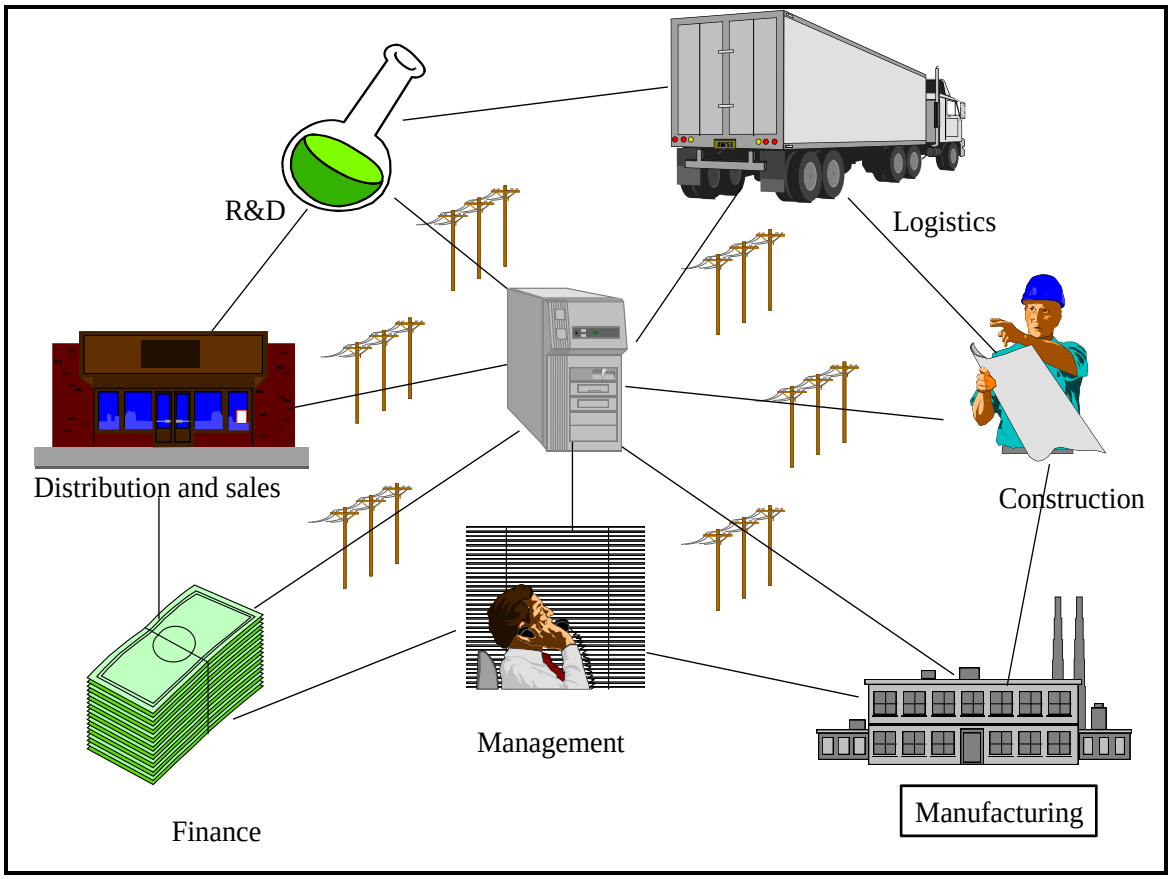
application of e-commerce and its significance in the pharmaceutical industry, the conclusion reached was e-commerce has created cogent value for the industry. Efendi et al. (2008) examine the financial performance of firms that are early adopters of business-to-business (B2B) buy-side e-commerce systems. Their analysis reveals that early adopters outperform their non-adopting industry peers.

Virtual Businesses

As a result of e-commerce, business firms now have the ability to become virtual businesses. A virtual business is a modular structure of multiple individual business firms connected via online computer technology, as shown in Exhibit 2 below. The individual firms making up the virtual business are networked, which enables sharing of skills, costs, and access to markets. An individual business firm contributes only its core competencies. The value of a virtual business is that they have the flexibility required to seize new opportunities and be competitive in a complex market.

Exhibit 2

Networking Various Individual Business Firms into a Virtual Business



Source: Smith et al. 2003.

Communicating with the Consumer

Whether it's online advertising, a company website, blogs, or a video on YouTube, e-commerce via the Internet has become a valuable medium for communicating with target markets. Online advertising is a form of promotion that uses the Internet for the express purpose of delivering marketing messages. Online advertising has grown steadily regardless of downturns in the economy. It is expected to grow by 16 percent in 2011, boosting its share of all advertising to slightly more than 15 percent. Half of online advertising is comprised of advertisements that appear when a search-engine is enlisted (*The Economist* 2010). An advertising banner on the Internet potentially levels the playing field between large and small companies. According to one study, online advertising banners were found to increase the probability of a consumer purchase (Goh and Chintagunta 2006).

Marketers can use the Internet to sell to a particular niche or a mass market. E-commerce allows for personalization and specialization. A valuable benefit of e-commerce is its capacity to offer consumers a personalized relationship (Wind & Rangaswamy 2001). Personalization has been shown to increase the level of loyalty a consumer holds toward a retailer (Srinivasan, Anderson, & Ponnavolu 2002). One way to personalize the exchange experience is to recommend future purchases that are specific to the customer's likes and needs. This can be done through the use of a recommender engine that keeps track of the customer's purchases and then recommends products that are similar or related in some way.

Consumer-generated reviews concerning products and companies are increasing with the help of social media websites such as Face Book, Twitter, and YouTube. According to Keller (2007), consumer word-of-mouth (WOM) has become extremely influential in the decision making process. Marketers can benefit by soliciting positive WOM from their customers. Marketers are communicating with consumers online, through social networks, search engines, and other popular websites (Simmons 2008). Marketers can also build a relationship with consumers by facilitating repeat visits to the company website.

Company Websites

A company's e-commerce website provides the public with an up close and personal view of the company. Company websites can facilitate information gathering and purchase decisions for the consumer. Websites can also be an instrument for gathering valuable information about the customer. The website can help build a relationship with the customer through regular communications and offers.

Like any other piece of marketing, a website needs to be controlled carefully to ensure that it conforms to and supports the image that the company hopes to convey. Information, structure, design, and performance of a company's website all contribute to this image. A company should consider its website as an extension of its brand. A company's marketing or public relations department often, but not always, controls the website. Policies should be established to ensure the protection of the company image. Exhibit 3 below shows some of the policies that a company might apply to its website.

Exhibit 3

Company Policies for Managing E-Commerce Websites

Policy Category	Category Elements
Design	Layout Style sheets Typography Color palette Logos Background color or picture Metadata Navigation (e.g. max depth)
Performance	Response time (to serve page) Page size (in bytes, determines transmission response) Browser compatibility (browser type, version) Platform compatibility (computer, phone, PDA)
Process	Development language(s) Approval process for site updates Appeal processes Frequency of review
Content	Frequency of update Ownership Content sources
Privacy	Use of cookies Use of collected data Disclosure

Source: Smith et al. 2003.

An e-commerce website can include all types of information. Most websites will contain at least a description of the company, a list of the company's products and services, and an e-mail link to contact the company. Some of the specific information that can be included on a website is as follows:

- Description of the company.
- Description and pictures of products and services.
- Contact information including an e-mail link to the company.
- Company philosophy and social responsibility.
- Biographies of key company personnel.
- Search engine for website.
- Customer reviews.
- On-line tracking of desired products and purchases.
- Description of employment opportunities.
- Links to other websites.

According to a study involving website design, consumers are drawn to websites with brightly colored graphics. Consumers prefer websites that offer personalization and interaction. As for what to avoid in website design, consumers dislike un-closable windows, mandatory downloads, and flashing items. In order to encourage repeat visits, a website should offer competitive prices, good shipping rates, and coupons (Smith 2011).

E-RISK

E-risk has been defined as the potential for financial and technology problems to result from engaging in e-commerce (Smith et al. 2003). Since the Internet was not originally designed for business, it was not designed to control and manage business risks. Developments in the e-commerce environment alter risk, so previous solutions may no longer apply. Processing power, connectivity, and speed can spread viruses, enable system compromise, and compound errors in seconds, potentially affecting interconnected parties. Hackers continually develop new techniques; thus, creating new vulnerabilities. If access to the system is acquired, hackers can potentially cause major problems by deleting, modifying, or stealing data. Cyberspace is open to villains who look for computer networks to exploit.

E-Commerce and Cybercrime

Cybercrime is a major concern that consumers have regarding e-commerce. No one wants to become a victim of cybercrime, which is a real hazard to e-commerce. Cybercrime is an e-crime. Cybercrime is a criminal act that involves computers and networks. Cybercrime includes criminal acts such as computer viruses, phishing, and denial of service attacks that cause e-commerce

websites to lose revenues. Understanding and defending against cybercrime is critical for companies involved in e-commerce.

E-commerce companies lose billions of dollars in lost business, stolen assets, and damaged reputations as a result of cybercrime (Smith et al. 2010). Cash is stolen, literally with the push of a button. When an e-commerce website crashes, business activity stops. The usual outcome is that a company loses business to a competitor who has a working website. In addition to losing sales, companies that become victims of cybercrime also experience damaged reputation. Vulnerability to cybercrime may cause some customers to lose confidence in a company's ability to accurately process sales transactions and effectively protect confidential customer information.

Throughout the world, cybercrime has become a major concern (Council of Europe 2011). Stopping cybercrime is more than a business concern. Stopping cybercrime is a law enforcement challenge facing national governments. Preventing cybercrime is important for a nation's economic progress, as e-commerce is a substantial component of economic activity. US President Barak Obama has been called upon to formulate a comprehensive and nationwide strategy (Albanesius 2008). Some common cybercrimes are shown in Exhibit 4 below.

Exhibit 4

Examples of Common Cyber Crimes

Cyber Crime	Description
Computer virus	Computer virus is a program that piggybacks or attaches itself to application programs or other executable system software; causing damage to computer systems or files.
Phishing	Phishing occurs when the perpetrator sends fictitious emails to individuals with links to fraudulent websites that cause the victim to release personal information.
Botnet	A Botnet infection occurs when a hacker transmits instructions to other computers for the purpose of controlling them.
Spoofing	Spoofing is use of email to trick an individual into providing personal information that is later used for unauthorized purposes.
E-bank theft	E-bank theft occurs when a perpetrator hacks into a banking system and diverts funds to accounts accessible to the criminal.
Netspionage	Netspionage occurs when perpetrators hack into online systems or individual PCs to obtain confidential information.
Online credit card fraud	Online credit card fraud is illegal online acquisition of a credit card number and use of it for unauthorized purposes.
Online denial of service	Online denial of service is use of email barrages, computer viruses, or other techniques to damage or shut down online computer systems.
Software piracy	Software piracy is the theft of intellectual assets associated with computer programs.
Spam	Spam refers to unsolicited email; spam is illegal if it violates the Can-Spam Act of 2003, such as by not giving recipients an opt-out method.

Source: Kratchman et al. 2008.

Many consumers are uncomfortable using the Internet for transacting business because of cybercrime and security concerns regarding their transactions. Pathak (2004) evaluates risks associated with e-commerce. He concludes that e-commerce requires auditors to identify risks and show their impact on the information system. However, auditors do not provide security against e-risk. Auditors provide independent and professional opinions that information provided on a website is accurate. To inspire consumer trust in a website, it is beneficial for a company to make use of Web assurance services.

Web Assurance Services

Web assurance services provide e-commerce customers with an indication of the quality and trustworthiness of e-commerce websites. Four principal Web assurance services are as follows: BBBOnline, Trust Services, TRUSTe, and VeriSign. When a company's e-commerce includes one of these Web assurance service seals, then assurances are provided concerning various aspects of doing business with the company. The BBBOnline seal, for example, indicates that the company is a member of their local Better Business Bureau (BBB), has been in business for at least a year, has agreed to abide by the BBB standards of truth in advertising, and has committed to work with the BBB to resolve consumer disputes. Exhibit 5 below provides brief descriptions and symbols of these four Web assurance services.

Exhibit 5

Web Assurance Services

Verisign. Verisign provides digital certificates that provide users assurance that they are doing business with the genuine site and not an imposter's "spoof" site, and that the information sent, e.g., credit card numbers, online forms, or financial data, is protected from interception or alteration over the web.

TRUSTe. Truste is an organization sponsored by several of the larger Internet firms such as Microsoft and IBM. When you visit a Web site displaying the TRUSTe trustmark, you can expect to be notified of: What personally identifiable information of yours is collected; What organization is collecting the information; How the information is used; With whom the information may be shared; What choices are available to you regarding collection, use and distribution of the information; What kind of security procedures are in place to protect the loss, misuse or alteration of information under the company's control; and How you can correct any inaccuracies in the information.

Trust Services. Trust Services, which include WebTrust® and SysTrust®, are a set of professional assurance and advisory services offered by U.S. CPAs and Canadian Chartered Accountants. Trust Services are based on a common framework (specifically, a core set of principles and criteria) that address the risks and opportunities of information technology. Trust Services offer guidance when providing assurance services, advisory services, or both on information technology systems, including e-commerce systems. Trust Services assess security, availability, processing integrity, privacy, and confidentiality. Trust Services Principles are specifically applicable to two AICPA/CICA services—WebTrust and SysTrust.

BBBOnLine. Websites carrying the BBB*OnLine* Reliability seal are all members of their local Better Business Bureau, have been in business for at least one year, have agreed to abide by BBB standards of truth in advertising, and have committed to work with the BBB to resolve consumer disputes that arise over goods or services promoted or advertised on their site.

Source: Runyan et al. (2008).

SURVEY RESULTS AND DISCUSSION OF FINDINGS

Past research studies described earlier concerning e-commerce and Web assurance services indicate that some consumers have virtually no worries about doing business on the Web, while others express varying levels of concern. For this study, a survey was used to gather information regarding e-commerce experiences and perspectives. The survey included 50 consumers. Most had previously made an online purchase. A Nielsen global survey found that over half of Internet users have made at least one purchase online in the past month (RTO 2008).

Demographic information regarding the survey participants is provided in Exhibit 6 below. As shown, survey participants were fairly evenly distributed by gender, 58 percent male and 42 percent female. Age of participants was 52 percent over age 30 and 48 percent under age 30. Survey participants were split between students, 56 percent, and non-students, 44 percent. Household incomes varied, with 40 percent between zero and $25,000 and 40 percent over $100,000.

Exhibit 6

Demographic Data of E-Commerce Survey Participants

Gender:		
	Male	58%
	Female	42%
Age:		
	30 and Under	52%
	Over 30	48%
Household Annual Income:		
	$0-25,000	40%
	$25,001-100,000	20%
	Over $100,000	40%
Student:		
	Student	56%
	Non-student	44%

The survey included college students and businesspeople. Regarding college students, behavioral research often uses students as surrogates of the general population. Prior research shows that college students generally make decisions representative of the general population (Ashton and Kramer 1980). As far as e-commerce activity, college students have considerable purchasing power. A study by the National Association of College Stores estimated college students have about $100 billion in discretionary income, and that the purchasing patterns of students often predict purchasing trends of the general population (NACS 2001).

Results of the survey are shown in Exhibit 7 below. Estimated weekly time on the Internet varied, with 10 percent spending less than two hours per week and over one-third spending more than 10 hours per week. According to a recent study (ComScore 2011), during 2010 the average American was on the Internet 32 hours per month, or about 8 hours per week. Interestingly, older persons, ages 45-54 set a higher average of 39 hours online each month.

Exhibit 7

E-Commerce Survey Findings

Estimated Weekly Time on Internet:	**Percent**
None	0
More than 0; Less than 2 hours	10
More than 2; Less than 6 hours	20
More than 6; Less than 10 hours	33
More than 10 hours	37
Made Online Purchase:	
Yes	94
No	6
Made Online Purchase Past 3 Months:	
Zero	14
1-3	50
4-6	18
More than 6	18
Made Online Purchase of Services Past 3 Months:	
Zero	41
1-3	37
4-6	12
More than 6	10
Made Online Purchase of Product Past 3 Months:	
Zero	22
1-3	46
4-6	24
More than 6	8

Exhibit7 is continued on the next page

Exhibit 7 - Continued
E-Commerce Survey Findings

Bad E-Commerce Shopping Experience:	**Percent**
Yes	33
No	67
Bad E-Commerce Shopping Experience Resolved:	
Yes	67
No	33
Satisfied with Online Shopping Experiences:	
Yes	92
No	8
Presence of Web Assurance Seals Important:	
Yes	94
No	6
Web Assurance Seals Influence Online Purchases:	
TRUSTe	56
Trust Services	44
BBB Reliability Program	42
Verisign	78
Understand Differences in Web Assurance Services:	
Yes	58
No	42
In Past 3 Months Have Not Made an Online Purchase Due to Privacy or Security Concerns:	
Yes	40
No	60

The great majority of survey participants, 94 percent, had made an online purchase. A total of 86 percent had made at least one online purchase in the past three months; 18 percent had made more than six online purchases in the past three months. Both services and products had been purchased by a majority of participants: 59 percent had purchased a service and 78 percent had purchased a product.

While 94 percent of participants had made an online purchase, a large proportion of participants, 40 percent, indicated that in the past three months they had chosen not to make an online purchase due to concerns about privacy or security. Most online shoppers were satisfied with their experiences, but about one-third had experienced a bad e-commerce shopping experience. On the positive side, though, about two-thirds of those who had a bad experience had the bad experiences resolved.

With regard to Web assurance seals, 94 percent of the consumers indicated that the presence of a Web assurance seal was important. Many indicated that the presence of the seals influenced online purchases. The breakdown by seal was as follows: TRUSTe, 56 percent; Trust Services, 44 percent; BBB Reliability Program, 42 percent; and Verisign, 78 percent. Using Web assurance services is one way that companies can enhance the viability of their e-commerce websites.

CONCLUSIONS

The key event in the dramatic growth of e-commerce was the creation of the World Wide Web in the 1990s. Since that time the Web has become synonymous with the Internet. The Internet is extensively used for two kinds of e-commerce, business-to-business (B2B) transactions and business-to-consumer (B2C) transactions. Businesses are compelled to use e-commerce in marketing their products and services in the global marketplace. Yet, there are pitfalls to e-commerce. Fear of cybercrime is a deterrent to people participating in e-commerce.

This study included a consumer survey to garner information about consumer perspectives and experiences regarding e-commerce. All the survey participants spend some time on the Internet each week. Over one-third spend more than 10 hours each week on the Internet. The great majority, 94 percent, had made an online purchase. A large proportion, 40 percent, of those surveyed indicated that they had not made an online purchase in the prior three months due to concerns about privacy or security. About one-third had experienced a bad e-commerce shopping experience; two-thirds of those bad experiences had been resolved.

Given the importance of e-commerce to business operations, companies would do well to evaluate e-risk and establish appropriate security measures. Doing so will engender positive customer relations and contribute to the company's overall business success. Helping consumers have good e-commerce experiences is essential to a company's marketing efforts.

REFERENCES

Albanesius, Chloe. 2008. Report Calls for Major Cyber Security Overhaul. *PCMag*, Website: http://www.pcmag.com (December 8).

Ashton, R. and S. Kramer. 1980. Students as Surrogates in Behavioral Accounting Research: Some Evidence. Journal of Accounting Research 18 (Spring): 1-15.

ComScore. 2011. Average Time Spent Online per U.S. Visitor in 2010. ComScore, Website: http://www.comscoredatamine.com/2011/01/average-time-spent-online-per-u-s-visitor-in-2010/ (January 13).

Council of Europe. 2011. Cybercrime Legislation - Country Profiles. Council of Europe, Website: http://www.coe.int/t/dg1/legalcooperation/economiccrime/cybercrime/Documents/CountryProfiles/default_en.asp (April 1).

Efendi, Jap, Michael Kinney and L. Murphy Smith. 2008. Profitability Analysis of B2B Buy-Side E-Commerce Systems. Working Paper, Texas A&M University.

Goh, Khim Yong and Pradeep K. Chintagunta. 2006. The Effect of Banner Advertising on Internet Purchasing. *Journal of Marketing Research*, Vol. 43(1): 98-108.

Hunter, Shirley and L. Murphy Smith. 2008. Impact of Internet Financial Reporting on Emerging Markets. *Journal of International Business Research*, In press. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1017078.

Internet World Stats. 2011. Website: http://www.internetworldstats.com/stats.htm. Accessed January 1, 2011.

Kanungo, Rama Prasad. 2004. E-Commerce in the Pharmaceutical Industry: Threshold of Innovation. *Management Research News*, Vol. 27, No. 8/9. Available at SSRN: http://ssrn.com/abstract=643263.

Keller, Ed. 2007. Unleashing the Power of Word of Mouth: Creating Brand Advocacy to Drive Growth. *Journal of Advertising Research*, Vol. 47 (December): 448-452.

Kratchman, Stan, Jacob Smith and L. Murphy Smith. 2008. Perpetration and Prevention of Cyber Crimes. *Internal Auditing*. Vol. 23, No. 2 (March-April): 3-12.

NACS (National Association of College Stores). 2001. NACS Website: www.nacs.org (December).

Onofrei, George and Alexandru Nedelea. 2007. The Impact of E-Commerce on the Supply Chain B2B in Ireland. *Amfiteatru Economic*, Vol. 21 (February): 45-49.

Pathak, Jagdish. 2004. A Conceptual Risk Framework for Internal Auditing in E-commerce. *Managerial Auditing Journal*, Vol. 19, No. 4: 556-564.

RTO Online. 2008. Consumers Shopping Online Up Forty Percent in Two Years. RTO Online, Website: http://www.rtoonline.com/content/article/Jan08/OnlineShoppers012908.asp (January 29).

Runyan, Bruce, Katherine T. Smith, and L. Murphy Smith. 2008. Implications of Web Assurance Services on ECommerce. *Accounting Forum*, Vol. 32: 46-61.

Simmons, Geoff. 2008. Marketing To Postmodern Consumers: Introducing the Internet Chameleon. *European Journal of Marketing*, Vol. 42: 299-310.

Smith, Katherine T. 2008. An Analysis of E-Commerce: E-Risk, Global Trade, and Cybercrime. Working Paper, Available at SSRN: http://ssrn.com/abstract=1315423.

Smith, Katherine T. 2011. Digital Marketing Strategies that Millennials Find Appealing, Motivating, or Just Annoying. *Journal of Strategic Marketing*, forthcoming. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1692443.

Smith, Katherine T., L.M. Smith, and J.L. Smith. 2010. Case Studies of Cybercrime and Its Impact on Marketing Activity and Shareholder Value. *Academy of Marketing Studies Journal*, Forthcoming.

Smith, L. Murphy. 2008. Are International Financial Reporting Standards (IFRS) an Unstoppable Juggernaut for US and Global Financial Reporting? *The Business Review, Cambridge*, Vol. 10, No. 1 (Summer): 25-31. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1125069.

Smith, L. Murphy, Katherine T. Smith and Steven Gordon. 2003. *Essentials of Accounting Information Systems*. Austin, Texas: Leyh Publishing.

Srinivasan, Swaminathan, Rolph Anderson and Kishore Ponnavolu. 2002. Customer Loyalty in E-Commerce: An Exploration of its Antecedents and Consequences. *Journal of Retailing,* Vol. 78(1): 41–50.

The Economist. 2010. The World in 2011: 25-year Special Edition, December 2010: 125-127

Wind, Jerry and Arvind Rangaswamy. 2001. Customerization: The Next Revolution in Mass Communication. *Journal of Interactive Marketing*, Vol. 15(1): 13–32.

Note: The title graphic was designed by Carole E. Scott

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