IDEA GROUP PUBLISHING

701 E. Chocolate Avenue, Suite 200, Hershey PA 17033-1240, USA
Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.idea-group.com

ITP4919

A Critique: Factors Contributed to the Dotcom Failures

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ABSTRACT

Over the past few years the dotcom saga has affected the world economy and re-defined investment strategies worldwide. This phenomenon has caught the attention of a lot of researchers who are interested in searching for reasons behind this fanatical happening. This paper is designed to create a model that will facilitate the categorization of factors which contributed to the failure of dotcom companies obtained through the literature survey by the authors. The model should help future researchers in their attempt to search for factors that would contribute to the successful adoption of e-business by future companies.

PREAMBLE

Over the past years, Internet based e-business has rapidly developed into a major economic activity (Legard, 2000). Investment in Internet related companies reached its peak in the first quarter of 2000 (Webmergers Inc, 2003). While some of these businesses were successful and profitable, the majority of them were not (Saviour, 2002).

These Internet related companies are often called "dotcom" companies. According to Webmergers Inc (2003), there are approximately 5,000 of the "substantial" (public funded) dotcom companies which have been acquired (at an estimated values of US$200 billions) or shut down over the past three years (see Table 1).

This chaotic development has affected the world economy and millions of people worldwide. Despite many failures and, as indicated by Webmergers Inc (2003), the fact that failures are still on the upward trend (see Table 1), dotcoms are here to stay (Udupa, 2001). This phenomenon has caught the attention of a lot of researchers. This paper is designed to create a model that will facilitate the categorization of factors which contributed to the failure of dotcom companies obtained through the literature survey by the authors. Furthermore, it offers a model that would provide a framework for investigation into factors for e-business adoption by companies.

WHAT IS A "DOTCOM" AND ITS FAILURE IN THE CONTEXT OF THIS RESEARCH?

There are many definitions of "dotcom". The American Heritage (2000) defines dotcom as "a business conducted or relating to a company whose products or services deal with or are sold on the Internet." Lawrence et. al. (2003) defines dotcoms as "those companies specifically formed to do business almost entirely on the Internet." This research embraces both definitions.

Table 1: Post dotcom era. Source: Webmergers Inc (2003)

	Acquired	Shutdown
2000	1,446	78
2001	1,283	212
2002	1,085	228
2003	78	312
TOTAL	3,892	962

Gratzer (2001) has outlined five definitions of business failure in his study. They are: the bankruptcy criterion, the solvency criterion, exit in order to avoid expected loss, the opportunity cost criterion and all other kinds of discontinuity. This research embraces all types of failures as well as acquisition by others typified by those shown in Table 1.

Literature searches by authors revealed that there are many other factors which contribute to the failure of dotcom besides financial issues. In order to help other researchers to gain better insight into the failure of dotcoms, a model is used to categorize the factors identified.

THE PROPOSED MODEL

Figure 1 illustrates the overview of the model and Table 2 shows the details.

LITERATURE SURVEY RESULTS – INTERNAL FACTORS

Financial

Marketing

Many companies failed because they have not spent enough or too much on marketing (Wolverton, 2000).

Over funding – get rich fast

During 1999-2000, media were filled with get-rich fast stories and dotcoms were receiving huge injections of venture capitals causing a lot of executives to over spend on fast cars and high class offices to enhance their images to attract further capitals. (American City Business Journals, 2003) (Opportunity Wales, 2003) (Ma.S.A.M, 2001) (Soros, 2001) (TheGantry Group, 2001)

Figure 1: The proposed dotcom model

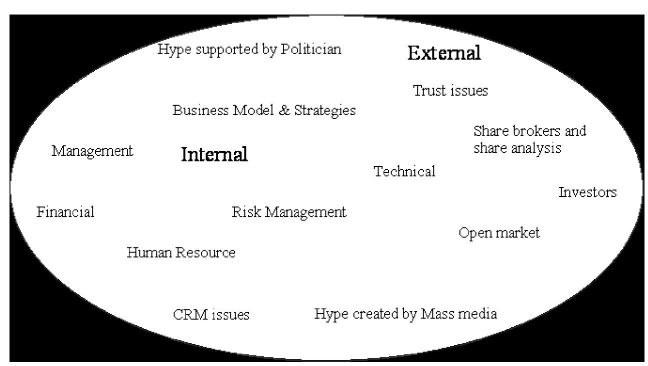

Table 2: Details of the proposed model

Internal	External
1. Financial 1.1 Marketing – too much or not enough 1.2 Over funding – get rich fast 1.3 Price/cost/profit issues 1.4 No or poor budget control 1.5 Poor financial management 1.6 Cash flow issue 1.7 Too soon to list public 1.8 Low margin	1. Investors 1.1 Share market bubble and inflated share price
2. Management 2.1 Growth before established, global before ready 2.2 Inexperience and no precedence to learn from 2.3Lack of cohesion between business and IT 2.4 Slow in response to customer's request or enquiries 2.5 Lack of market research 2.6 Inadequacy of the fulfillment system	2. Share brokers and share analysis
3. Human resource 3.1 Lack of skills 3.2 Lack of experience people – paid premium price 3.3 Sweat shop – burnt out 3.4 Over-hiring & hiring amongst family and friends	3. Hype supported by Politician
4. Business model & strategies 4.1 Unsound business model based on faulty assumptions, not profit driven 4.2 No business strategies and poor vision 4.3 Brand building rather than building business 4.4 Mis-concepts 4.4.1 Advertisement revenue model 4.4.2 Built it and they will come 4.4.3 Free and then charged concept 4.4.4 Fault prediction of how the market will growth 4.4.5 Promoting the site rather than business 4.4.6 Growth at any cost mentality 4.4.7 "First mover" advantage 4.4.8 Dotcom measure site visitor instead of customers 4.4.9 Other have and we must have	4. Hype created by Mass media
5. Risk management 5. 1 Poor disaster recover plan	5. Trust issues 5.1 Short history of e-business
6. Technical 6.1 Security issues 6.2 Privacy issues 6.3 Update & maintainability issues 6.4 Inferior to the real world – need new user experience 6.5 Reliability and breakdown 6.6 Scalability 6.7 Usability 6.7.1 Bandwidth and download issues 6.7.2 Difficult to find info 6.7.3 Broken links 6.7.4 People are not aware of the existence of the site	6. Open market – competition fierce, compete on speed, cheapest price
	7. CRM issues 7.1 Customer Inertia 7.2 Compete with the off-line trader 7.3 Delivery of physical good issues 7.4 Global issues 7.4.1 legality

Price/cost/profit issues

Many dotcom executives fail to understand the survival of a company requires a sound prices, costs and profits relationships. Many also do not understand that customers need to be acquired and kept loyal but not at an excessive costs. (Bazac, 2002) (Bock, 2002) (Shiels, 2001)

No or poor budget control

Many dotcoms failed due to poor budgetary management or lack of control over the capital (Web Enabled Business Systems, 2002).

Poor financial management

There was a lack of financial rigour or cost control. Little thought was given to controlling costs and balancing the financial figures (Opportunity Wales, 2003).

Cash flow issue

Some, but not many dotcoms, are wealthy. Cash flow is often an issue. Poor cash flows, often due to incorrect revenue model. Some companies relied on large numbers of visitors to attract advertisers but such expectations were often not realized. When times are good, there are huge inflows of cash. When the share market starts to turn bad, valuations of the company plummet. The "value wedge" thus formed, made raising subsequent funding difficult, if not impossible. (Bazac, 2002) (Duguid and Tresman, 2003) (The Gantry Group, 2001) (Walters, 2001)

Too soon to list public

A lot of dotcom founders wanted their companies to be listed on the Stock Exchange with the hope that they could realize their "get rich fast" dream (Opportunity Wales, 2003). According to eCommerce Guides in Opportunity Wales (2003), many were launched before they were ready.

Low margin

Some dotcoms' business models are based on negative profit margins. They are only interested in attracting visitors to their site rather than making profits (The Gantry Group, 2001).

Management

Growth before established, global before ready

E-business might bring new opportunities: quick wealth potential and a fast way to build a business from the ground up. The company, however, needs to be fundamentally ready before launching their business on the Internet and preparing to go global (Cohen, 2002).

Inexperience of the management and no precedence to learn from

A company fails fast with lack of good management, particularly, on the part of leader (Arnander, 2001). Jupitermedia Corporation (2001) suggested that many dotcom managers have "a very limited amount of business experience outside of technology". Many experienced managers were reluctant to take on the risk associated with dotcom and thus the "much-needed skills are simply not presented within the sector".

Lack of cohesion between business and IT

According to Opportunity Wales (2003), many investors and "experts" did not have enough knowledge of the technological basis of the web, to ensure sound investments. Many e-business ideas, however, have been developed without in-depth understanding of information technology or without involving information technologists. This lack of understanding may be caused by the newness of the technology. (Pandya et al., 2001) (Athitakis, 2003) (Hinssen ,2001) (Crane, 2003) (Walker ,2001) (Baida et. al., 2002)

Slowness in response to customer's requests or enquiries

The survey by Netsavvy Communications (2001) reported that the timeliness of dotcom responses were lagging behind that of "Call Centres". Companies were missing critical cross-sell and up-sell opportunities by failing to turn customer queries into business opportunities.

Lack of market research

Most dotcoms failed because of the lack of efficient cost-effective marketing (Opportunity Wales, 2003).

Inadequacy of the management system including the fulfilment subsystem

Like Charles Schwab success, support and integration of the management team was essential (Harmon et. al., 2001). In creating a commercial presence on the web, planning, organizing, controlling and monitoring activities are important and the whole management system should be carefully considered. Many dotcoms failed to provide good fulfillment system to support the web activities (Lawrence et. al., 2000) (Arnander, 2001).

Human resource

Lack of skills

Many dotcoms hired friends and relatives and thus, many dotcoms' employees would not have the relevant skills (Bazac, 2002).

Lack of experience people - paid premium price

Many dotcoms failed to hire human resources professionals early enough during the development of their companies, and thus might not have the expertise to find the right people to fill important executive positions (Mallory, 2002). Furthermore, the lack of people who have the right experience and knowledge to develop an Internet company might force many dotcoms to pay gratuitous prices to lure these experienced people (Johnson, 2001).

Sweatshops - burnt out

Most dotcom managers wanted their companies to grow at the "Internet" pace, and thus the working environments were often intensive, just like a garment sweatshop (McLullough, 2000). Prolong working hours and high stresses often lead to staff being burnt-out.

Over-hiring & hiring amongst family and friends

Greenspan (2001) suggested that e-business should not over-hire staff. However, many dotcom companies hired too many people or/and hiring friends and relatives which were often "returned no value on investments" (Bazac, 2002).

Business model & strategies

Unsound business model based on faulty assumptions, not profit driven

A research by Richie (2000) revealed that 47% of dotcom owners indicated that a faulty business model is the main reason for failing. This agreed with the findings by Saviour (2002). Without a well designed business plan, a dotcom would not be able to identify their ideal market areas and potential customers. They also lost on potential market places, competitive advantages and opportunities to make profit. Once a competitive advantage is lost, most of the companies will not be able to compete against their competitors. (Hollander, 2001) (Kirby, 2001) (Martin, 2000)

No business strategies and poor vision

Bock (2002) suggested that most great businesses build long-term strategic advantages by offering excellent ideas to those who want, need and are willing to pay, which also included ideas that their competitors were not doing, but profitable. Many dotcoms failed because they did not realize the importance of strategic planning, or the process relied too heavily on intuition. Sound strategic planning requires both intuition and analysis. Many failures may be attributed to the fact that the companies were started by individuals who did not appreciate the importance of a good business model and an effective strategic plan. (Saviour, 2002) (Graham, 2000) (Hatter, 2000) (Miller, 2002) (Nwachukwa, 2002) (Opportunity Wales, 2003) (Parikh, 2001) (Vaughn, 2001) (Walters, 2001) (Weisman, 2001)

Brand building rather than building business

Many dotcoms failed because they spent their efforts to gain brand exposures rather than building up their businesses (Mahoney, 2001).

Misconceptions

- Advertisement revenue model
  The idea that advertisement revenue would support an e-business has lead to many failures. Web based advertisement revenue can be impressive. For instance in 2002 Yahoo has US$1.2 billions profit follow by AOL US$910 million revenue from web based advertisement. Unfortunately, most dotcoms did not have the similar wide customer bases or the finance to support that. Bulik (2001) claimed that even now, online advertising is still imma ture. Despite that, the advertisement revenue model was fickle and contents were expensive to build; many dotcoms based their business models on delivering contents for free, hoping to make a profit through advertising or by charging money later. (Bontis and Mill ,2002) (Fischer, 2000) (Hellweg, 2002) (Howard, 2001) (Miller, 2002)
  Even big players such as Salon.com and TheStreet.com have now moved to adopt subscription models. (Bedell and Goldstein, 2002)

- "Build it and they will come" myth
  "Build it and they will come" is one of the myths that contributed to a lot of dotcom catastrophe. (Fingar et. al., 2001) (Chiu, 2003)

- "Free and then charged" concept
  Internet customers often believed that internet contents should be free. Many sites that tried to charge for content that used to be free simply lost their audiences to their rival sites. (Mahoney, 2001) (Marshall, 1999) (Bedell and Goldstein, 2002) (Rainie et. al., 2001)

- Fault prediction of how the market will grow
  The most fatal mistake was to massively overestimate the speed at which the market place would adopt dotcom innovations.
  Miller (2002) believed that people need time to integrate inno vations into the ways they do things. The wrong adoption speed assumption resulted in over-investments which led to the inevi table bubble and bust (Wuorio, 2003).

- Promoting the site rather than business
  Many dotcoms often had no clear online and offline advertising strategies in place. Many companies were interested only in promoting their site rather than their businesses. (Bazac, 2002) (Parikh, 2001)

- Growth at any cost mentality
  Pearson Education (2001) stated that the costs spent to induce rapid growth often outstripped revenues lead to dotcom failures.

- "First mover" advantage
  Being first to market is often referred to as the "first mover" advantage and was often seen as the most important factor leading to dominance in a market sector. The Gantry Group (2001) believed that most companies looked at Amazon and AOL for guidance on this matter. In these cases, the entry to the market was shut after two market entries, regardless of what quality of products or services that any late comers could offer. This "all or nothing philosophy" had ensured panic in the Internet sector and forced everyone to try to be the "first mover" (Walters, 2001).

- Dotcom measures its site visitors instead of customers
  Many dotcoms adopted the fickle advertisement revenue business model and thus site visitation and site statistics became a gauge to measure the success of a company. The number of visitors also became a key means to measure the corporate value rather than traditional "revenue and profit" approach. (The Gantry Group, 2001) (Haley, 2000) (Williamson, 2000)

- "Others have and we must have" doctrine
  To succeed, it is often that a dotcom must have what it competi tors have in order to make money, survive and grow (Aware, 2002). However, what competitors have may not be contributing to its business (see Point 1.2). Blindly follows the doctrine is dangerous (Wolverton, 2000).

Risk management

Poor disaster recovery plan

A common mistake of many dotcoms was to blindly follow the "get big fast" strategy without a proper disaster recovery plan. (Fitzgerald, 2001) (Nash, 2000)

Technical

Security issues

Security is a major concern when dealing with Internet technologies (Biscontri, 2001). Security-related fears definitely prevented some customers from adopting dotcom innovations and this will remain an issue (Ebusiness, 2003).

Privacy issues

Most dotcoms failed to convince customers that their privacy would be safeguarded and that personal information would only be used for the purpose of delivering superior value to them (Biscontri, 2001).

Update & maintainability issues

Many dotcoms failed to keep their site contents current and few had designed their web sites with maintainability in mind (Hayes, 2000).

Inferior to the real world - need new user experience

Most e-commerce web sites tried to mimic the real-world shopping environment but failed to deliver the similar experiences that users would experience when doing real shopping. This slows down the e-shopping adoption rate (Yu, 2001).

Reliability and breakdown

It is vital that a dotcom must ensure its web site is available 24 hours, 7 days a week on a global basis without any downtime. Failing that, even for a few minutes interruption, customers can easily switch to other competitors and may be lost forever (Arnold, 2001). E-customers are often accustomed to the reliability offered by electronic systems such as Automatic Teller Machines or the telephone network. Despite maximum efforts put in by the technology teams, the same level of reliability would never be achievable on the Internet (Martin, 2000).

Scalability

Mercury Interactive Corporation (2000) found that 52 percent of the web-based businesses surveyed, did not meet their anticipated web-based business scalability objectives. Of this group, 60 percent did not use any type of automated load testing tool. Many dotcoms' web sites could not handle the peak loads or cope with the increased traffic when the company grew (Arnold, 2001).

Usability

- Bandwidth and download issues
  At the end of 1999, approximately 1.5% of US households were connected to broadband (Nielsen, 2000). Despite that, a lot of venture capitals were invested (even without a single paid end-customer in sight) during the dotcom peak era whilst bandwidth was an unsolved problem in 2001 (NetActive, 2001). This was evident in the first case of dotcom failure – Boo.com – the first online fashion retailer. The company had underestimated the difficulty of showing large 3D images over the Internet. The heavy graphics made the site virtually unusable for slow modem access (Wood, 2000). Gardy and Naman (2000) also believed that many dotcoms at that time "overestimate consumers' bandwidth and put too much on the home page". Mercury Interactive Corporation (2000) suggested that successful promotion campaigns have led to increase in web traffic and radically impact system performance. Some customers who were tired of waiting could simply click to competitors' sites. Thus any opportunities for revenue growth would be lost.

- Difficulty in finding information
  A test conducted in 1998 showed that only 42% of the time, online users could find the information they wanted and 62% of users gave up looking for what they wanted. A lot of failed dotcoms web sites were technically brilliant but failed to support the needs of their users. The *visitors to customers* conversion rate was subsequently low. (ChrisFoxInc, 2000) (Duguid and Tresman, 2003)

- Broken links
  Although broken links may the easiest error to fix, it is still a very common problem. Surprisingly a large number of companies seemed to think that an error message indicating "this site is in the process of being re-organised" made no difference to their customers. (ChrisFoxInc, 2000) (Konrad, 2001)

- People are not aware of the existence of the site
  Many dotcoms failed to advertise their site correctly and consequently customers were not aware of the existence of the site. (Graham, 2000) (Bazac, 2002)

LITERATURE SURVEY RESULTS - EXTERNAL FACTORS

Investors

Share market bubble and inflated share price

Investors saw an opportunity to make quick money, joined the Internet hype and continued to buy dotcoms shares, pushing up the already unrealistic share prices to even greater heights. Normal investment criteria seemed to be ignored and investors invested for the sake of the fear of missing out and through sheer greed. (eCommerce Innovation Centre, 2002) (The Gantry Group, 2001) (Beaton, 2002) (Martin, 2000)

Share brokers and share analysts

Share brokers and analysts joined in fuelling the already overheated market (Kinsman and Harlow, 2001).

Hype endorsed by Politician

Politicians were continuously claiming that dotcom was the future for business (eCommerce Innovation Centre, 2002).

Hype created by Mass media

Mass media were also to be blamed (Allis, 2002).

Trust issues

Short history of e-business

Among e-business partners, trust is the product of each organization's history, reputation, track record and patterns of behaviours. Most dotcoms had too short a history to generate trust. Without trust, business would not grow (LaTorre, 2001).

Open market - competition fierce, compete on speed, cheapest price

With some software and a website, it was very easy to start a dotcom company. There was however, a limit to how many firms within one industry that could survive, even online. There were too many firms going after the same customers. (Hirakubo and Friedman, 2002) (Keegan, 2000)

CRM issues

Customer Inertia

It is difficult to change a customer's habits. If one does not like shopping online, even the best technology and innovation will not help. The Internet changed the rules of customer and supplier relationships. Sales of some products such as cars, pharmaceuticals and mortgages remain complicated by laws, customer habits and long-standing supplier relationships (Frieswick and Tsui, 2001).

Competing with the off-line traders

Some dotcoms had to compete with existing off-line businesses who were already in the market for a long time. These dotcoms failed because investments were made without careful planning and scrutiny of the market situations (Simmons et. al., 2000).

Delivery of physical good issues

Physical goods bought via the Internet still had to be delivered physically. A lot of dotcoms did not handle this aspect well in particularly when orders were received from overseas. (Dr. Ecommerce, 2000) (Sandoval, 2000) (Bock, 2002)

Global issues

culture, taxation and legality

Most of the dotcom companies had a global trade. Some of them failed to appreciate that each country has a different language, currency, taxation and legal systems. (Strom, 2000).

CONCLUSION

Over 300 articles were surveyed by the authors and the proposed model presented in this paper is supported by nearly 100 references. It is hoped that the proposed model can help researchers to gain further insights to the reasons behind the failure of dotcom and their findings can be used to prevent history repeating.

REFERENCES

Allis, R. (2002, July 29). The Causes of the Dot Com Crash Available: http://www.zeromillion.com/econ/dot-com-crash.html (Accessed: 2003, September 14).

American City Business Journals Inc. (2003, March 11). Dot-com 'casualties' near 5,000 Available: http://sanjose.bizjournals.com/sanjose/stories/2003/03/10/daily19.html (Accessed: 2003, September 19).

Arnander, F. (2001). Managing.com: entrepreneurial business and wired management, start here London: FT.com.

Arnold, A. (2001, August 24). Let the uptimes roll: why you need 24 x 7 availability Available: http://searchwebservices.techtarget.com/originalContent/0,289142,sid26_gci763007,00.html (Accessed: 2003, September 14).

Athitakis, M. (2003, May issue). How to Make Money on the Net. Available: http://elab.vanderbilt.edu/media/mentions/business20_may2003.pdf (Accessed: 2003, April 25).

Aware (2002). Competitor Analysis - A Brief Guide The Basic Principles of Competitor Monitoring Available: http://www.marketing-intelligence.co.uk/aware/competitor-analysis.htm (Accessed: 2003, September 24).

Baida, Z., Bruin, D. and Gordijn, J. (2002). e-Business Cases Assessment: From Business Value to System Feasibility Available: http://citeseer.nj.nec.com/505797.html (Accessed: 2003, September 19).

Bazac, D. (2002, April 15). Why dot-coms fail – a webmaster's perspective. Available: http://www.web-design-in-new-york.com/why_dot_coms_fail.html (Accessed: 2003, March 16).

Beaton, G. (2002, March 4). Dotcom boom 'just beginning". Available: http://www.thisismoney.com/20020303/nm45033.html (Accessed: 2003, April 25).

Bedell, D. and Goldstein, A. (2002, February 19). Soaring use shows Web unhurt by industry's woes, analysts say. Available: http://www.dougbedell.com/internet2002.html (Accessed: 2003, April 20)

Biscontri, R. (2001, April). Cutting through the business of culture (Australian CPA) Available: http://www.cpaaustralia.com.au/03_publications/02_aust_cpa_magazine/2001/27_apr/3_2_27_cutting_through.asp (Accessed: 2003, February 13).

Bock, W. (2002). Drugstores, WebVan and Dot-Com Failure. Available: http://www.mondaymemo.net/000724feature.htm (Accessed: 2003, April 21)

Bontis, N. and Mill, J(2002). Dot-bomb Post-mortem: Web-based metrics and internet stock prices. Available: http://www.business.mcmaster.ca/mktg/nbontis//ic/publications/BontisQJEC.pdf (Accessed: 2003, April 25).

Bulik, B. S. (2001, February issue). Not By Ads Alone. Available: https://www.business2.com/subscribers/articles/mag/0,1640,14546,00.html (Accessed: 2003, April 2).

Chiu, E. (2003). 10 Tips to a Winning E-Business Plan Available: http://www.infoadvantage.com/doc/reart_ebusinessplan.htm (Accessed: 2003, September 14).

ChrisFoxInc (2000, November 28). e-Commerce Business Models Available: http://www.chrisfoxinc.com/eCommerceBusinessModels.htm (Accessed: 2003, September 11).

Cohen, S. (2002). Early-Growth Allure Available: http://dotcom.monster.com/articles/executives_part1/ (Accessed: 2003, September 22).

Crane, A. S. (2003, February 1). Actionable E-Metrics. Available: http://www.intelligententerprise.com/030201/603feat2_1.shtml (Accessed: 2003, March 14).

Dr. Ecommerce (2000, November 2). Dr. Ecommerce Available: http://europa.eu.int/ISPO/ecommerce/drecommerce/answers/000178.html (Accessed: 2003, September 24).

Duguid. C. and Tresman. C. (2003). Is the dot com doomed? Available: http://www.homeworking.com/s-b11.htm (Accessed: 2003, March 27).

Ebusiness (2003). Ebusiness Available: http://qcee.com/report/ebusiness/dotcom.html (Accessed: 2003, September 11).

eCommerce Innovation Centre (2002). The dot.com Phenomenon Available: http://www.opportunitywales.co.uk/0-0-0/2-0-0/2-1-0/2-1-4.htm (Accessed: 2003, September 22).

Fingar, P., Aronica, R. and Maizlish, B. (2001). The Death of "e" and the Birth of the Real New Economy: Business Models, Technologies and Strategies for the 21st Century Florida: Meghan-Kiffer Press.

Fischer, J. (2000, November 14). Why Pets.com Died. Available: http://www.fool.com/portfolios/rulebreaker/2000/rulebreaker001114.htm (Accessed: 2003, April 4).

Fitzgerald, T. J. (2001). What can be pulled from the dot-com wreckage. Available: http://www.startupjournal.com/runbusiness/failure/20010621-fitzgerald.html (Accessed: 2003, April 6).

Frieswick, K. and Tsui, E. (2001, April). True Tales of Internet Failures Available: http://www.cfoasia.com/archives/200104-18ecfo.htm (Accessed: 2003, September 22).

Gardy, A. and Naman, M. (2000, September 15). The Do's of Online Retailing Available: http://business.cisco.com/prod/tree.taf%3Fasset_id=50256&ID=48300&ListID=44753&public_view=true&kbns=1.html (Accessed: 2003, September 11).

Graham, J. (2000). Why Dot-Com TV Ads Can Fail. Available: http://www.clickz.com/mkt/emkt_strat/article.php/822481 (Accessed: 2003, April 19).

Gratzer, K. (2001, July). Business Failure and the New Economy Available: http://web.bi.no/forskning/ebha2001.nsf/0/a6cb7066ea59eda6c12567f30056ef4d/$FILE/F2%20-%20Gratzer.PDF (Accessed: 2003, September 19).

Greenspan, R. (2001, January 31). Manage the Ecommerce Business Achieving e-Prestige Available: http://ecommerce.internet.com/how/biz/article/0,3371,10365_576251,00.html (Accessed: 2003, September 22).

Haley, C. C. (2000). Losses polish off Furniture.com Available: http://www.internetnews.com/fina-news/article.php/5_504121 (Accessed: 2003, April 10).

Harmon, P., Rosen, M., and Guttman, M. (2001). Developing E-Business Systems and Architectures: A Manager's Guide New York: Morgan Kaufmann Publishers.

Hatter, A. (2000). Dot.coms risk failure by ignoring both customers and traditional business rules. Available: http://www.pwcglobal.com/extweb/ncpressrelease.nsf/docid/0f753cc8b801a8668525694c00672734 (Accessed: 2003, April 2).

Hayes, I. (2000, May 8 – last update). Seven Steps to e-business Success (Software Magazine) Available: http://www.softwaremag.com/archive/2000feb/SevenSteps.html (Accessed: 2001, October 15).

Hellweg, E. (2002, February 12). It's Not Just Amazon. These Net Businesses Are Profitable! Available: http://www.business2.com/articles/web/0,1653,37921,00.html (Accessed: 2003, April 1).

Hinssen, P. (2001). Lessons Learned from Dot Com failures. Available: http://www.itworks.be/dotcomfailures.html (Accessed: 2003, March 27).

Hinssen. P. (2001). Internet Companies Three Years After the Height of the Bubble. Availlable: http://www.webmergers.com/data/article.php?id=67 (Accessed: 2003, March 27).

Hirakubo, N. and Friedman, H. (2002). Dot-Bombs: Lessons from the Dot-Com Debacle, Journal of Internet Commerce, volume 1, issue 2, pp 89 – 102.

Hollander, J. (2001). The Day the World's Best Dot-Com Died. Available: http://www.newsfactor.com/perl/story/11928.html (Accessed: 2003 September 20).

Howard, D. (2001 June). "Welcome to the post-DotCom era", netWorker volume 5, issue 2, pp. 26-31.

Johnson, M. (2001). Got good people? Available: http://www.computerworld.com/careertopics/careers/story/0,10801,55564,00.html (Accessed: 2003, September 24).

Jupitermedia Corporation (2001, March 12). Dot Coms Fail Successive Corporate Tests Available: http://www.internetnews.com/bus-news/print.php/710231 (Accessed: 2003, September 24).

Keegan, V. (2000, October 21). Click.crash Available: http://www.guardian.co.uk/efinance/article/0,2763,385940,00.html (Accessed: 2003, September 19).

Kinsman, M. and Harlow, C. (2001). Dot.Gone: What did investors learn from Y2K? Available: http://gbr.pepperdine.edu/012/dotgone.html (Accessed: 2003, September 14).

Kirby, J. (2001) A Chance To Manage Wealth, Business Review Weekly (Australia), 4 Oct, pg. 79.

Konrad, R. (2001, February 27) Dot-com stars shine brightest before they die Available: http://news.com.com/2100-1023-253255.html (Accessed on:2003, April 20) 20/04/03)

LaTorre, J. (2001). E-Business: A Matter of Trust Available: http://www.pwcglobal.com/extweb/manissue.nsf/DocID/36EF60019E21554885256A280067302D (Accessed: 2003, September 22).

Lawrence, E., Corbitt, B., Fisher. J., Lawrence, J., and Tidwell, A. (2000). Internet Commerce: digital models for business, 2nd ed, John Wiley & Sons Australia Ltd, Brisbane.

Lawrence, E., Newton, S., Corbitt, B., Lawrence, J., Dann, S. and Thanasankit, T. (2003). Internet commerce: digital models for business, 3rd ed, John Wiley & Sons Australia Ltd, Brisbane.

Legard, D. (2000, February 20). Outlook strong for Asia-Pacific E-Commerce (IDG News Service) Available: http://www.security-informer.com/english/crd_data_439563.html (Accessed: 2001, September 17).

Ma.S.A.M (2001, February 26). Death of DotCom Hype Available: http://ma.s.a.m.tripod.com/tech-2602.htm (Accessed: 2003, September 11).

Mahoney, M. (2001, November 16). Whatever Happened to Dot-Com Stunts? Available: http://www.ecommercetimes.com/perl/story/14795.html (Accessed: 2003, September 22).

Mallory, M. (2002). New companies, old problems Available: http://ajcclassifieds.com/employ/companies.html (Accessed: 2003, September 24).

Marshall, C. (1999, October 18). Dot-com brand-building runs wild Available: http://www.forbes.com/1999/10/18/feat.html (Accessed: 2003, September 22).

Martin, P. (2000, December 28). After the Bubble (London Financial Times) pp 12.

McLullough M (2000, June) The Second Dot.Com-ing Available: http://www.vanmag.com/0006/dotcom.html (Accessed: 2003, September 22)

Mercury Interactive Corporation (2000). Load Testing to Predict web performance Available: http://www-svca.mercuryinteractive.com/pdf/products/whitepapers/load_testing_web_perform.pdf (Accessed: 2003, April 21).

Miller, T. (2002). For Starters: Top Ten Lessons from the Dot Com Meltdown Available: http://www.businessplanarchive.org/whatwecanlearn/tenlessons.html (Accessed: 2003, April 2).

Nash, K. S. (2000). Dot-coms skimp on IT spending Available: http://edition.cnn.com/2000/TECH/computing/07/19/it.depts.cut.idg/ (Accessed: 2003, March 15).

NetActive White Paper (2001). The Rocky Road to Bandwidth Utopia or, Streaming in Technicolor Available:http://www.netactive.com/Downloads/whitepapers/rockyroad.pdf (Accessed: 2003, April 6).

Netsavvy Communications (2001, February 20). Slow response times and lack of personalization hampers customer care Available: http://sellitontheweb.com/ezine/news0503.shtml (Accessed: 2003, September 22).

Nielsen, J. (2000). Who's Online Doing What Available: http://www.Bockinfo.com/question.htm (Accessed: 2003, April 21).

Nwachukwa, S. L. S. (2002) Analysis of the Failure of E-Commerce Businesses :A Strategic Management Perspective Available: http://www.sbaer.uca.edu/Research/2002/ACME/Papers/02acme014.pdf (Accessed: 2003, March 25).

Opportunity Wales (2003). The dot.com Phenomenon, eCommerce Innovation Centre, Cardiff University Available: http://www.opportunitywales.co.uk/0-0-1/2-0-0/2-1-0/2-1-4.htm (Accessed: 2003, April 23).

Pandya, K.V., Arenyeka-Diamond, A. and Bhogal, R. (2001) Research Issues in e-Business' International Conference, vol.2 Pg: 29 -37.

Parikh, G. (2001) LETTERS TO THE EDITOR: Pinpointing the precise causes of dotcoms' downfall, London Financial Times, 3 Jan p.18.

Pearson Education Ltd (2001). Why have so many dot coms failed so dramatically? Available: http://www.business-minds.com/article.asp?item=319 (Accessed: 2003, September 22).

Rainie L., Spooner, T., Kalsnes, B. and Nof, S. (2001). Risky Business: Americans see greed, cluelessness behind dot-coms' comeuppance Available: http://www.pewinternet.org/reports/pdfs/PIP_Dotcom_Woes2_Report.pdf (Accessed: 2003, March 26).

Richie, K. (2000). Reasons Why Dot Coms Fail: How To Avoid the Pitfalls of E.Business Available: http://www.fortunecity.com/business/realestate/432/dotcomfailuresnovember2000.html (Accessed: 2003, April 2).

Sandoval, G. (2000). Furniture.com a case study in e-tail problems Available: http://news.com.com/2102-1017-243395.html (Accessed: 2003, April 10).

Saviour, L.S. (2002). Analysis of the failure of E-Commerce businesses: A strategic management prospective Available: http://www.sbaer.uca.edu/Research/2002/ACME/Papers/02acme014.pdf (Accessed: 2003, March 16).

Shiels, M. (2001). Dotcoms under the hammer Available: http://news.bbc.co.uk/1/hi/business/1229279.stm (Accessed: 2003, April 05).

Simmons, T. and Cleevely, K. (2000). E-Business Projects failing to deliver says major survey of European E-Business Strategists Available: http://www3.amsinc.com/CMC/newsroom.nsf/pr/BWAD-4P4P3R (Accessed: 2003, March 22).

Soros, G. (2001). When The Internet Boom Went Bust Available: http://www.soros.org/news/soros_01_01.htm (Accessed: 2003, March 10).

Strom, D. (2000, May 19). Web Informant #199, 19 May 2000: Lessons learned from the demise of Boo.com Available: http://www.strom.com/awards/199.html (Accessed: 2003, September 22).

The American Heritage (2000). Dictionary of the English Language: 4th ed Available: http://www.bartleby.com/61/8/D0350850.html (Accessed: 2003, February 11).

The Gantry Group (2001) The Dot-Com Crash of 2000: What Went Wrong? Available: http://www.bitpipe.com/data/detail?id=994945805_656&type=RES&x=1030683139 (Accessed: 2003, April 20).

Udupa, D. (2001, December 5). Dotcom Bust and Future Available: http://www.geocities.com/divakara_udupa/itdotcombust.htm (Accessed: 2003, September 5).

Vaughn. S. (2001, March 18) Dot-Com Weary? Tips for the transition back into a bricks-and-mortar firm Available: http://www.thinkenergygroup.com/Think.nsf/InfoNFR/Press+DotCom?OpenDocument (Accessed: 2003, March 27).

Walker, D. (2001). The history of IT is a history of failure Available: http://www.shorewalker.com/pages/it_failure-1.html (Accessed: 2003, March 22).

Walters J. (2001). Why Dot-Coms Failed (And What You Can Learn from Them) Available: http://www.inc.com/articles/biz_online/do_biz_online/biz_models/23447.html (Accessed: 2003, April 22).

Web Enabled Business Systems (2002). Internet Failure: The Causes and How it Happens Available: http://www.huntingtoncentral.com/internet_failure.htm (Accessed: 2003, September 14).

Webmergers, Inc (2003). REPORT: Internet Companies Three Years After the Height of the Bubble Available: http://www.webmergers.com/data/article.php?id=67 (Accessed: 2003, September 19).

Webmergers, Inc (2003). YEAR-END REPORT: Acquirers Spent $23.3 Billion to Acquire Internet Companies in 2002 Available: http://www.webmergers.com/data/article.php?id=66 (Accessed: 2003, September 19).

Weisman, R. (2001, July 5). Analysts: Dot-Bomb Phenomenon May Be Slowing Available: http://www.newsfactor.com/perl/story/11743.html (Accessed: 2003, September 14).

Williamson, D. A. (2000). Special Report: Pets.com typifies troubled dot-coms laboring to overcome their missteps Available: http://www.adage.com/news.cms?newsId=1320 (Accessed: 2003, April 6).

Wolverton, T. (2000, November 7). Pets.com latest high-profile dot-com disaster Available: http://news.com.com/2100-1017-248230.html (Accessed: 2003, September 22).

Wood D (2000, July) Boo.com flops but the future of European e-commerce remains bright Available. http://www.cnn.com/SPECIALS/2000/e.europe/stories/e.commerce/ (Accessed: 2003, September 11)

Wuorio, J. (2003). 10 reasons why businesses fail Available: http://www.bcentral.com/articles/wuorio/150.asp (Accessed: 2003, September 22).

Yu, F. (2001, July). Dynamic pricing, haggling, and guanxi (Asia Internet Report No. 7) Available: http://www.asiainternetreport.com/AIR_0107.html#2 (Accessed: 2003, September 29).