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Meeting Consumer Needs on the Internet: Successful Business Models

The meteoric rise in the number of users on the Internet has led to a proliferation of web-based companies. While many of these companies have yet to be profitable, a miniscule few have been able to grow explosively while maintaining a positive revenue flow from the onset. By examining America Online, Yahoo and Amazon.com, this paper shows first how successful companies have been able to capitalize on what consumers' value most from the Internet and how these companies have been able to meet latent consumer demands. In summary, firms must adhere to five factors to be successful: value-pricing: multi-product offerings; leveraging information on demand; trust and lengthy relationships.

Introduction

This paper introduces and analyses 10 business models currently being adopted by different companies to identify the critical factors of success for web-based companies. By examining three of the largest brand names on the Web, Amazon.com, America Online (AOL), and Yahoo, this paper shows first, how successful companies have been able to capitalise on what consumers value most from the Web, and secondly, how these companies are meeting latent consumer demands.

The ubiquitous reach of the Internet, coupled with the exponential growth in end-users, has led to a plethora of business models designed to exploit this new access to residential and business users. A useful summary of these models is provided in Table 1[1].

Although some of these models are more applicable to the business-to-consumer than to the business-to-business sector, this paper reasserts the argument discussed previously[2] that there is a gradual blurring of distinction as companies move toward the *value chain integrator* to exploit fully the advantages of demand chain and supply chain integration. This paper specifically examines three companies in the business-to-residential sector and examines their attempts to evolve towards the value-chain integrator model,

Table 1 Business models for Internet commerce

E-Shop	Promotion of company and goods and services
E-Procurement	Electronic tendering and procurement of goods and services
E-Auction	Electronic bidding which may integrate contracting, payments and delivery
E-Mall	Virtual collection of shops
Third-Party Marketplace	Common marketing front-end and transaction support to multiple business
Virtual Community	Value-add of communications and exchange of information between members or partners
E-Business Service Provider	Support aspects of e-business value chain such as electronic payments or logistics
Value Chain Integrator	Integrating multiple steps of the value chain
Collaboration Platforms	Collaboration between enterprises in business functions such as design or engineering
Information Brokers	Value added in searching, providing and packaging information and consultancy

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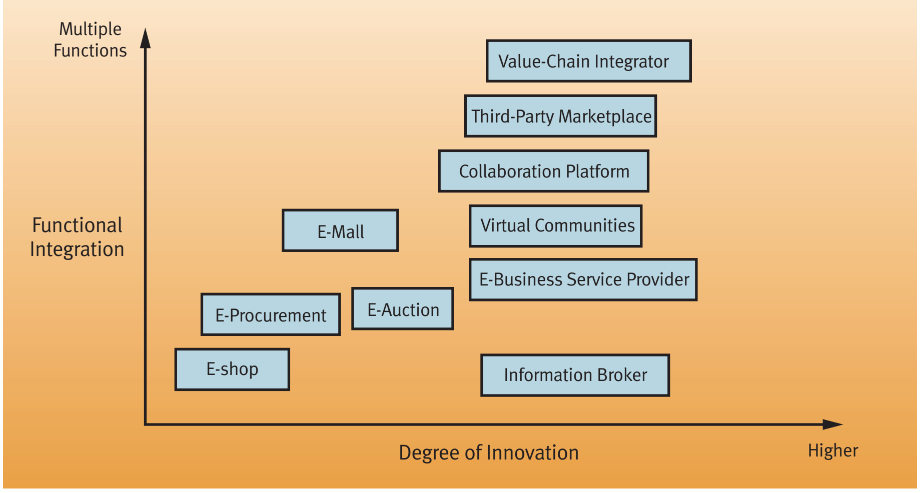
Figure 1 Business model characteristics



as shown in Figure 1. Specifically, a value-chain integrator would incorporate various aspects of business models into core processes: e-shop to increase the geographical scope of its customer base and to reduce some aspects of cost of sales; virtual community to enhance customer support and customer retention; and e-procurement to reduce transaction costs in the supply chain. However, this requires significant re-engineering of core business processes, hampered by the need, in many cases, to maintain traditional physical warehousing and distribution facilities.

Web-User Characteristics

In formulating effective business models, firms must be cognisant of web-user's characteristics. Three on-line activities are important in this respect. First, an analysis of current consumer behaviour on the Web suggests that the Web will still be used primarily for information gathering over the next 3–5 years. Figure 2 shows that browsing is the predominant activity for a significant portion of Internet users over the past three years. Other prominent activities include educational activities, work and entertainment. Notably, shopping has not been a predominant activity. However, when the definition of shopping was expanded to include 'gathering of information', some 41% of Internet users stated they had used the Web for shopping. Overall, information gathering is still one of the main uses of the Internet, and this is not changing dramatically.

Secondly, the major problems faced by web users are still searching and organising information on the Web and slow access speed. Third, web users are also extremely sensitive to price (highly elastic demand) as evident from America Online's shift from usage-based to flat-rate pricing. In 1977, prior to its shift, average monthly subscriber usage was about 7 hours. This increased to some 24 hours in 1998 immediately after the change, and has risen to some 27 hours for the last quarter of 1999. Thus, as this paper shows, business models whose 'products' leverage information-on-demand while using e-commerce as a supplement will prove successful.

America Online

With $4.8 billion in annual revenues in 1999, AOL is a major international interactive communications and services company[3]. It is estimated that AOL subscribers account for over 50% of all Internet traffic. Revenues are generated from membership and usage fees, as well as other sources, including advertising and commerce sales.

America Online has forged partnerships to create a global community of interactive services. AOL service is available in over 100 countries through branded services and joint ventures with media companies such as Bertelsmann AG, which provides services in Europe. AOL's international strategy is to provide local languages and content to non-US markets.

Strategy: leveraging information on demand

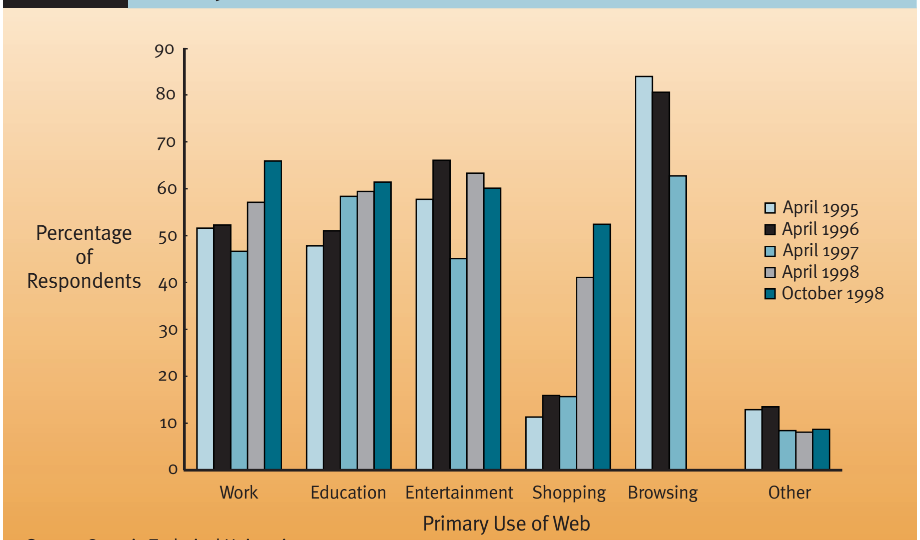
AOL's strategy has been to leverage information on demand by focusing on content provision and by a multiple brand strategy to build programming content and services. Its principal product is information services, supplemented by commerce and advertising efforts.

AOL manages a range of content and services, and strives to provide a customised product on a mass-scale by organising information. Content is organised into channels analogous to television. Members can navigate the service easily to areas of interest like news, sports, travel, international, personal finance, and computing. Furthermore, information can be personalised with a number of features and tools, including a reminder service, stock price updates, and Favorite Places, which allows members to mark particular web sites. Other services include e-mail, bulletin boards, buddy lists, instant messaging public or private 'meeting rooms', chat, and guest interviews.

Success of strategy

AOL's subscriber base has grown rapidly. At the end of 1999, it had approximately 20.5 million subscribers, including 17.4 million in North America and 3.1 million in the rest

Figure 2 Primary use of the Web



Source: Georgia Technical University, World Wide Web Survey, 1995–1998

Table 2 Select financial statistics of America Online (millions of US$)

	6 Months Ended 31 December		Fiscal Year Ended June 30			
	1999	**1998**	**1999**	**1998**	**1997**	**1996**
Subscription Revenues	2062	1509	3321	2183	1478	1024
Advertising, Commerce and Other	787	419	1000	439	256	102
Enterprise Solutions	239	219	456	365	411	188
Total Revenues	3088	2147	4777	3091	2197	1323
Cost of Revenues	1621	1223	2,657	1811	1162	
As % of Total Revenues	52.5	57	55.6	58.6	52.9	
Net Income (loss)	455	191	763	(74)	(485)	35

of the world†. Also, at this same time, they had some 2.07 million CompuServe members. For the 6 months ended 31 December 1999 the average number of revenue-generating subscribers rose 34% over the corresponding period in 1998.

The success of AOL's strategy can be gleaned from Table 2 which summarises key financial indicators. For the quarter ended 31 December 1999, AOL reported profits of some $271 million. There has been a sharp increase in revenues from advertising and e-commerce, which grew 84% over fiscal 1998, and in subscription revenues, which grew 52%. The increase in AOL on-line service revenues was primarily attributable to a 38% increase in the average number of AOL North American subscribers for fiscal 1999, compared to fiscal 1998.

AOL's strategy of moving to a flat-rate plan has both advantages and disadvantages. Marketing expenses have fallen due to a decrease in subscriber acquisition costs and improved customer retention rates. However, a larger customer base has meant higher data-network costs and increase in cost of revenues. This increase in costs is evident by analysing the usage pattern of subscribers. AOL's average monthly subscriber usage in the first quarter of fiscal 1997, the last quarter before the introduction of flat-rate pricing, was approximately 7 hours. For the 1998 fiscal year, average monthly subscriber usage ranged between 20 and 23 hours. By the end of 1999, the average monthly subscriber usage had increased to 24–27 hours. For fiscal year 1999, cost of revenues increased from $1.8 billion to $2.7 billion, or 47%, over fiscal 1998.

Multi-product offerings through alliances

Realising the price sensitivity of subscribers, the next important component of AOL's strategy has been to increase non-subscription-based revenues, including advertising and commerce revenues. The company provides its commerce partners marketing and promotional opportunities in return for payments, the opportunity for revenue sharing, and competitive pricing and on-line services for subscribers.

Ubiquity of access

AOL is striving to offer services on alternate platforms such as television, wireless telephones, hand-held computers and other devices. The company is investing in the development of alternative technologies to deliver its services, including cable modems, digital subscriber line (xDSL) access, and integrated services digital network (ISDN) and wireless technologies. Alliances with a variety of companies (satellite, wireless, terrestrial telephone line) have been made to allow them to bring service to customers in a variety of ways.

AOL anticipates the need to expand AOLnet*, in order to increase its network capacity, provide its members with higher speed access, and reduce data network costs‡. During fiscal 1999, the system was upgraded to handle a standard V.90 modem protocol for high-speed 56.6 kbit/s access. AOL's service permits an average daily quota of 66 million e-mail messages and 432 million instant messages, as well as 121 million stock quote requests and 2.6 billion WWW pages as of July 1999. At this same time a year earlier, subscribers wrote 28 million e-mails and 200 million instant messages, generated 75 million stock quotes, and accessed 800 million web pages.

Yahoo

As the first search engine to the World Wide Web, Yahoo has remained one of the most recognisable names on the Internet. Unlike the vast majority of dotcoms, Yahoo has earned profits consistently since the fourth quarter of 1996. Like Amazon, Yahoo's early presence on the Web helped greatly in establishing the company as a well-known brand. Despite an onslaught of competition, the web site has retained a leading presence, due partly to its usability and simplicity. Like AOL, Yahoo recognised that it was important to eliminate complexity and make information easy to access.

Yahoo seeks global coverage and has expanded into over 21 non-US markets in Asia, Europe, and Latin America with localised versions of the site using over 12 languages**. Although Yahoo is popular in international markets, revenues have not grown rapidly as in the US, except in select countries such as Japan where the service is both profitable and growing rapidly. Since the service is free to users, and depends upon advertising, on-line commerce must grow along with Internet usage or Yahoo's business model will not succeed. Yahoo is present in Germany, the United Kingdom, and France, although it faces acute competition in Europe from Internet service providers (ISPs) that offer navigational services and who may have more in-depth knowledge of national preferences and market dynamics. Overall, the principal difficulty in executing Yahoo's business model internationally is the slow speed of adoption of the Internet as an advertising and commerce venue in overseas markets.

Strategy: Ease of use, personalisation and access to information

Since its inception, the company has retained its focus on providing information on demand, but has expanded its offerings and geographic reach. The company began as a search engine, but has evolved into an Internet media company with communications, media, and shopping features. The

† AOL has nearly 4 million small and mid-sized business customers and is aggressively promoting its web-hosting and e-commerce services to businesses.

* AOLnet is, a TCP/IP network of third-party network service providers, which includes Sprint, BBN, ANS Communications, Inc. which AOL manages.

‡ AOLnet offers members of the AOL service in North America local telephone numbers in approximately 790 cities. In total, the AOL service is available in approximately 1500 cities in more than 100 countries.

** The company's 21 international on-line properties in 12 languages include: Australia and New Zealand, Brazil, Canada, China, Denmark, France, Germany, Hong Kong, Italy, Japan, Korea, Mexico, Norway, Singapore, Spain, Sweden, Taiwan, and the United Kingdom and Ireland.

company is an aggregator of content—electronic pages that are generated by others. In contrast to the monthly service fee model of AOL, Yahoo's pages are available to users free of charge, with revenue generated mainly through the sale of advertisements, merchandising, sponsorships, direct marketing and promotions. The company has no plans to charge fees or commissions to its users.

Web sites are organised into 14 basic categories, and then are further organised under these headings by hierarchical subcategories. Basic listings are sometimes supplemented with descriptive commentary, and some listings are set apart to indicate that the site is of particular interest.

As the market has matured, Yahoo has continued to follow a 'minimalist' approach in its web-site design to ensure that pages will load quickly, regardless of the speed of the user's connection or PC. Yahoo's acquisition and partnership strategy is designed to increase the functionality of the service or added content, but they have avoided a large-scale merger like the AOL/ Time Warner alliance in order to retain independence. Yahoo maintains that they will be able to provide a wider range of choice in terms of content than if proprietary arrangements are made. In 1999 for example, Yahoo acquired GeoCities to expand its community membership and activities; Log-Me-On.Com, a developer of browser interface technology; and Encompass Inc. a developer of client-side applications.

Attaining scale is vital to Yahoo's business model—attracting large numbers of users gives it the power to charge advertisers high prices to display banners. In addition, taking a fee from electronic-commerce transactions conducted through its site is a quickly growing source of revenue.

Success of strategy

Overall revenues grew 140% in 1999. Yahoo has grown rapidly and has over 120 million users and an average of 465 million page reviews each day. The business model of Yahoo is based on organising a massive inventory of pages each of which present a revenue opportunity to acquire sponsorship or advertising. Viewers generate the pages, and there is little incremental cost for Yahoo to then send pages to users anywhere in the world. Yahoo began as a simple directory, but now also provides on-line communications services, audio and video, communities, business services, store hosting and management, and web-site tools. As with Amazon and AOL, personalised services are also provided. For example, users can manage their personal information through the computer, personal digital assistant (PDA), pager, or cell telephone.

Yahoo has avoided selling goods directly, and instead operates as a conduit for electronic commerce by offering a storefront for e-commerce merchants. An advantage that Yahoo possesses over most e-commerce sites, such as Amazon, is that it has no inventory, since its focus is on electronics services supported by advertising revenue†. Retaining its freedom from inventory management, warehousing, and distribution issues has been a key to the company's profitability.

Yahoo currently has over 3550 advertisers and 9000 merchants. Unlike AOL which derives most of its revenues from proprietary content and services, Yahoo's site is open, independent, and completely web-based.

Marketing expenses are the company's largest expenditure—and are expected to remain so. Like all on-line companies that lack a physical presence, Yahoo must keep its name alive through all forms of media. Large expenditures in technology, marketing and acquisitions, have been offset by dramatic increases in revenue between 1997 and 1999 as shown in Table 3.

Multi-product offerings

To continue attracting customers, Yahoo must first continue to deliver compelling content, investing in technology that will make the site easy to navigate, and spending on marketing. Targeting customers and providing personalisation tools is integral to keeping users loyal to Yahoo. Secondly, it must offer new information, commerce and communication services that can be tailored by the user. In this respect, Yahoo has significantly augmented its site with audio and video content. It offers services to corporate customers for on-demand and live on-line events, and with Yahoo Digital users can watch and listen to Internet broadcasts from popular musicians. These features move Yahoo beyond search engine functions, yet are complementary to the information-on-demand core service.

Yahoo works with partners who develop local and targeted content under the Yahoo brand. While the web-page listings are the platform, other information services and independent navigational tools have been developed to target specific user interests.

Additionally, Yahoo serves as a hub for communications on the Internet, providing chat, message boards, and a popular free e-mail service. Like AOL, Yahoo is moving to evolve from content over the PC to access through cell telephones, handheld devices and set-top boxes.

In addition, the company has moved into the business-to-business arena, providing a directory that offers listings of business e-commerce sites for industrial and commercial supplies. Outsourcing services including the creation and maintenance of customer web sites are available as well. Other new services include event and party organising, and Yahoo-branded electronic devices—for recording downloaded audio or digital cameras.

Amazon.com

Amazon.com is the leading on-line retailer of books and music, claiming 85% of on-line book sales. Estimated at some $26 billion in 1996 and expected to reach some $30 billion by the end of 2000, the worldwide book industry is large and growing, but fairly fragmented, with the United States accounting for one-third of the world's total book market. The retail book trade is dominated by three chains, namely Barnes

† As of December 1999 Yahoo Shopping included over 7500 stores. Consumers can compare and purchase items using the Yahoo Universal Shopping Cart and Wallet.

Table 3 **Select financial statistics of Yahoo[4] (millions of US$)**

	1999	1998	1997
Advertising Revenue	529.9	223.50	78.40
Sales and Marketing	214.89	124.73	58.47
Net Revenues	588.60	245.10	84.11
Operating Expense			
Cost of Revenues	101.80	52.15	19.88
Total Operating Expense	420.08	206.67	113.14
Net Income (loss)	61.13	12.67	43.38

and Noble, Borders Group Inc., and Books-A-Million Inc. Barnes and Noble is the largest book seller in the world with pre-tax profits of some $218 million on sales of $3.64 billion in 1999.

The on-line book industry currently accounts for about 3% of the overall book market, though many analysts believe this figure will grow to more than 15% in the next decade[5]. One report estimates Internet book sales of more than $2 billion by 2002, or about 6–7% of a $30 billion plus total market[6]. Amazon has grown from 256 employees in 1997 to some in 7600 in 1999—one indication that their competitive advantage in terms of maintaining high sales with low overhead expenses in terms of real estate and personnel requirements may not be viable.

Amazon's appeal to customers includes responsive service, unparalleled selection, discounted prices, and finally, the possibility for the customer to comment on books, read press reviews and comments by other book buyers. The site provides value regardless of whether a purchase is completed. All of these features have supported Amazon's rapid gain in new customers and retention of past customers. Amazon was among the first on-line stores to greet customers by name and offer custom home pages, send recommendations by e-mail, and credit card purchases. Repeat customers made up more than 50% of orders placed during the quarter ended 30 June 1997, a figure which rose to 64% of all orders in the third quarter of 1998[7]. For the first quarter of 1999 repeat orders increased to 66%.

Strategy: Customisation of mass production

Amazon's business model is predicated on the Internet as a platform to offer a range of products and services, facilitated by a strong brand recognition, a large and growing customer base, innovative technology, and extensive distribution capabilities. However, unlike AOL, Amazon principally sells physical products and it uses its information services as a means to attract and retain customers. Amazon's decision to launch an on-line bookstore in July 1995 was due, in the first place, to the community building possibilities surrounding books which Amazon felt it could facilitate: readers tend to seek others to discuss ideas and authors†. Secondly, it was based on the observation that books are unusual products because they are highly differentiated—over 3 million active titles, which is unparalleled in any other product category. Thus, it is possible to build a cyberstore with a selection that could not exist in physical form, since a typical mall bookstore has about 25 000 titles on hand, and a superstore can carry around 75 000 books. Also, books are a product intrinsically well-suited to Internet commerce because a customer can make educated decisions about book purchases using on-line information, unlike clothing and other personal products which need to be seen and touched[8].

Amazon thus strove to create a personalised on-line shopping experience based on the detailed knowledge of customer tastes and habits provided by their data. To attract customers to its site, Amazon has built browsing and searching capabilities into its site, and provides product information, reviews, recommendations, its 1-Click technology and personalisation on a broad selection of products. Current plans include a shopping referral service to help Amazon's 4.5 million customers find other products on the Web[5].

Customer allegiance has been achieved through a high level of service characterised by frequent contact with the customer*. An e-mail is sent immediately to thank the customer for the order, and again when the book is dispatched. Similarly, Amazon offers free e-mail personalised book recommendation services that allows customers to specify their interests, and receive notice automatically when a new book is published that matches their criteria. As a consequence, Amazon has a vast database of customer preferences and buying patterns.

Amazon was one of the first sites to customise pages for each registered customer, using *collaborative filtering*. Comparisons are made about previous purchases and preferences, and are compared with the preferences of other people who bought similar books. However, it is not yet clear how Amazon's recommendations have affected customer-buying habits[5].

Success of strategy

Amazon's success in attracting customers is illustrated by its substantial number of unique viewers for April 2000. Ranked twelfth among web properties by Nielsen/NetRatings Inc., for at-home Internet users, the site had nearly 11 million visitors that stayed about 11½ minutes each‡.

Amazon's initial growth was fueled by a discounting policy of up to 40%, coupled with the low likelihood of a recent title being unavailable. Further price cuts in June 1997, resulted in immediate increases in unit sales. By the end of 31 December 1999, Amazon.com had sales of more than $1.64 billion and some 16.9 million customer accounts in over 150 countries. Amazon's cumulative customer accounts stood at 16.9 million at the end of December 1999, which represents significant growth from the 6.2 million registered in 31 December 1998, and increase from 1.7 million for fiscal 1997[9]. Similarly, as shown in Table 4, net sales for fiscal 1999 sales amounted to some $1.64 billion, which represents a 1693% increase over the previous year. Net sales for the first quarter of 2000 increased by 95% over the corresponding period in 1999. International sales are important to Amazon expanding its customer base**. Overseas sales have continued to accounted for approximately 20% of net sales since 1996[10]. This percentage should increase since Amazon formally entered the European market in October 1998 with the launching of Amazon.de in Germany and Amazon.co.uk in England. Amazon.de offers 335 000 German titles and 374 000 US titles not available in Germany. Similarly, Amazon.co.uk sells 1.2 million UK published titles and 200 000 titles not available in Britain††. They may face stiff competition from bol.com since Bertelsmann has extensive experience and coverage in Europe.

However, net losses have continued to outpace sales, reaching some $720 million for fiscal 1999[11]. For the first quarter of 2000**,** Amazon sustained a net loss of some $380 million, which represents a significant increase over the corresponding period on 1999. At the end of December 1999, Amazon's accumulated deficit amounted to some $882 million. Continued losses indicate a business plan that may be difficult to sustain.

Tables 4 and 5 illustrate that Amazon's success in building a customer base and increasing sales volume has been offset by

† Customers find value in expressing their views and discussing them, as substantiated in interviews by CTM interviews as far back as 1997.

* Amazon customers interviewed by CTM indicated a high degree of confidence and satisfaction with their online shopping experience.

‡ AOL ranks number one in terms of number of at-home Internet users with a figure of 47 121 000 unique visitors who stayed an average of 29 minutes per person. This number compares with Yahoo ranked number two with 45 million visitors that stayed one hour and 4 minutes. http://cyberatlas.internet.com, "Top 25 Web Properties of April 2000".

** CTM survey data shows that Amazon is well-known and utilised in parts of the world where access to English bookstores is limited, and in rural and remote areas.

†† Based on year-end 1999 estimates in thousands, The Computer Industry Almanac lists 110 825 Internet users in the US, 13, 975 in the UK, and 12 285 in Germany (demographic information available at: http://www.cyberatlas.internet.com)

operating expenses which have increased significantly from 1998 on. It is estimated that Amazon has spent $36.20 for each new account acquired[12]. Furthermore, in order to accommodate the increase in orders, Amazon has had to dramatically increase its physical warehouse and distribution centres. At the end of December 1999, Amazon was leasing some 3.8 million square feet for its distribution centres in eight states in the US, as well as some 690 000 square feet in Europe, and was expected to add another 500 000 square feet to its UK facilities by April 2000. Similarly, Amazon's net fixed assets, which include computer equipment, software and construction, have increased significantly from some $29.8 million in 1998 to some $317 million in 1999.

Amazon also is concentrating on distribution channels, and has hired away Wal-Mart IT executives to help organise its inventory management system and hopefully to replicate the logistics and data warehousing systems, that have been key components in Wal-Mart's success. These are tasks associated with the physical product world: payment processing, inventory management, shipping, and handling returns[14]. Amazon has been taken to task for inefficient inventory management. An IceGroup study in August 1998 estimated losses at $7 per transaction.

The company has opened new distribution facilities to increase stocking capacity. This allows Amazon to buy more books, CDs and videos direct from publishers, reducing its reliance on wholesalers. Thus, ironically, as Amazon has grown, the company has expanded warehouse facilities and its employee base, mirroring the cost structure of traditional retail stores.

Table 5 provides a juxtaposition of Amazon's operating costs with its main competitor, Barnes and Noble. The comparison illustrates the uncertainty that Amazon.com will achieve cost savings over traditional means of selling books.

Like AOL, Amazon has sought to establish other sources of e-commerce revenues. For example, its widely emulated *Associates* programme allows organisations to form agreements with Amazon and in return receive a percentage of sales for sales they have helped generate. As of February 2000, some 430 000 web sites were enrolled as Associates. The programme ties Amazon's warehousing, customer information, order processing, payment and delivery capabilities to the highly specialised and decentralised network of book buyers[15]. Overall, this type of programme appears to be a way of achieving the efficiencies and customisation possibilities of the Internet. Jupiter Communications estimate that affiliate programmes accounted for 11% of the $5.8 billion in consumer transactions in 1998, and that this figure should grow by 24% by the 2002.

Table 4 Select financial statistics of Amazon.com[13] (millions of US$)

	3 Months Ended 31 March		Fiscal Year Ended 31 December				
	2000	**1999**	**1999**	**1998**	**1997**	**1996**	**1995**
Net Sales	539.89	293.64	1639.84	609.99	147.76	15.75	0.511
Cost of Sales	445.76	228.85	1349.19	476.16	118.95	12.29	0.409
Gross Profit	128.13	64.79	290.65	133.84	28.81	3.50	0.102
Operating Expenses							
Marketing and Sales	140.11	60.72	413.15	133.02	38.96	6.09	0.200
Product Development	61.24	23.40	159.72	46.81	12.49	2.31	0.171
General and Administrative	26.05	11.24	70.14	15.80	58.02	1.04	0.035
Total Operating Expenses	326.03	116.77	896.40	245.80	58.02	9.44	0.406
Loss from Operations	197.89	51.98	607.76	111.96	29.21	5.98	0.304
Net Loss	308.43	61.67	719.97	124.55	27.60	5.78	0.303

Table 5 Comparison of select financial indicators of Amazon.com and Barnes & Noble (millions of US$)

	For Fiscal Year Ended							
	Amazon.Com				Barnes & Noble			
	1999	**1998**	**1997**	**1996**	**1999**	**1998**	**1997**	**1996**
Total Sales	1629.4	610.0	147.8	15.7	3486.0	3005.6	2996.8	2448.1
Expenses as Percentage of Net Sales								
Cost of Sales	82.3	81.3	80.5	78.03	71.2	71.3	72.2	72.9
Selling and Administrative					18.7	19.2	19.3	18.6
Marketing and Sales	25.2	21.81	27.39	38.68				
General and Administration	4.3	2.59	4.74	8.96				
Rental Expense								9.2
Technology and Content	9.7	7.67	9.42	15.25				
Depreciation and Amortisation					3.2	2.9	2.8	2.5

Conclusions

AOL, Yahoo and Amazon have been successful in attracting users on a mass scale based on a model that provides content, ease of use, communication features, and attention to the price sensitivity of the Internet consumer. All three companies have also expanded their offerings from a few basic goods or services to a bundle of communication, content, and commercial possibilities for customers. The revenue-generation model is different for all three companies: AOL, the proprietary system that depends on subscription fees; Yahoo, the advertising-based revenue model; and Amazon, which depends upon sales of goods. Thus, only Yahoo makes a profit by giving away its information and services to the customer, while Amazon provides information and communication features as a means to sell a physical product.

America Online's success has been achieved in part by its development of a mainstream, user-friendly site that guides inexperienced users through the Internet. It has maintained an easy-to-use front-end to the Internet, and has an established a reputation for simplifying relatively difficult technologies to appeal to a wide audience. Furthermore, like Yahoo, AOL's product, 'information services', is well-suited to the Internet.

Like AOL, Yahoo has grown significantly despite strong competition from other companies including AOL, Microsoft (MSN), and e-commerce companies like Amazon that offer information services free of charge to bring in traffic. Yahoo has been successful in part due to its ability to evolve and adapt to changes in the on-line market and technology. The company must invest in technology and advertising to maintain user interest, but on the other hand, is not hampered with inventory or distribution issues that many of the dotcoms must contend with. Unlike AOL, Yahoo does not have a direct billing relationship with the customer which could be a vulnerability since it consequently has less information about customers.

Amazon has also been successful in attracting and retaining customers, mainly through discounting policies in addition to providing an easy-to-navigate site with compelling content. However, for current, popular books, although Amazon's prices are advertised as lower than the chain-stores, when the cost of shipping and handing is considered, the discount can be illusory. Furthermore, when Amazon's prices advertised at 40% lower than the retail chains are actually compared to its rival, Barnes and Noble on-line, which advertises discounts of only 20 to 30%, Amazon's prices in fact are usually identical†.

The ultimate success of Amazon is still unclear. As the company's losses continue, there are still no assurances that Amazon will be successful in addressing the multitude of challenges that it must overcome to become profitable. Although the company is moving from books to a wider product line with more high-margin products like electronics, a strategy of evolving into a retail portal may be hampered by the fact that other products may not be as well suited to the Internet as books. Furthermore, Amazon's attempt to establish a virtual bookstore or virtual store may be further hampered by the fact that even in cyberspace, selling products requires physical distribution and warehousing facilities, something that information products and services do not encounter.

† CTM's price comparison of a random selection of books from the major book distributors.

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