經濟部

行政院及所屬各機關出國報告
（出國類別：實習）

美國傳統零售商成功應用電子商務提升產業競爭力之研究報告

服務機關：經濟部商業司
出國人職　稱：專員
姓　名：何晉滄

出國地區：美國
出國期間：九十年七月八日至八月七日
報告日期：九十年九月二十八日

行政院及所屬各機關出國報告審核表

出國報告名稱：美國傳統零售商成功應用電子商務提升產業競爭力之研究	
出國計畫主辦機關名稱：經濟部國際合作處	
出國人姓名/職稱/服務單位：何晉滄/專員/經濟部商業司	
出國計畫主辦機關審核意見	☐1. 依限繳交出國報告 ☐2. 格式完整 ☐3. 內容充實完備 ☐4. 建議具參考價值 ☐5. 送本機關參考或研辦 ☐6. 送上級機關參考 ☐7. 退回補正，原因：☐不符原核定出國計畫 ☐以外文撰寫或僅以所蒐集外文資料為內容 ☐內容空洞簡略 ☐未依行政院所屬各機關出國報告規格辦理 ☐未於資訊網登錄提要資料及傳送出國報告電子檔 ☐8. 其他處理意見：
層轉機關審核意見	☐同意主辦機關審核意見 ☐全部 ☐部分_____（填寫審核意見編號） ☐退回補正，原因：_____（填寫審核意見編號） ☐其他處理意見：

說明：

一、出國計畫主辦機關即層轉機關時，不需填寫「層轉機關審核意見」。

二、各機關可依需要自行增列審核項目內容，出國報告審核完畢本表請自行保存。

三、審核作業應於出國報告提出後二個月內完成。

系統識別號:C09005511

行政院及所屬各機關出國報告提要

出國報告名稱：美國傳統零售商成功應用電子商務提升產業競爭力之研究

頁數 34 附件：□是■否

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內容摘要：(二百至三百字)

近年來零售業有許多變革，整體產業仍然處於不確定的狀態，不管是大型購物中心與郵購的崛起都帶給傳統零售業者不小的衝擊，目前所有投資人與企業更把目光都放在網路零售業中，目前仍很難預測網路零售業未來的前景，但是可以預知的是網路將徹底改變零售業的生態與未來的商務模式。近來歐美等先進國家已成功運用網際網路，將電子商務技術應用於傳統零售業(如網路購物、商場管理、客戶管理等)，有效突破時間與空間限制，將傳統零售業之經營帶入嶄新的領域，創造無限商機與契機。正值我國即將加入世界貿易組織(WTO)，在國內傳統零售業須面臨國際零售業嚴厲的市場競爭之先，藉由本次出國實習，汲取美國零售業者運用電子商務提升產業競爭力之做法，做為國內零售產業發展政策釐定與推動之參考。

本文電子檔已上傳至出國報告資訊網(http://report.gsn.gov.tw)

目　　錄

一、前言

為提升傳統零售業之經營管理能力，塑造優質的商業環境，經濟部商業司正積極推動工商綜合區（大型購物中心）之設置及商店街、形象商圈等中小零售業之輔導。由於零售業屬於末端消費型態，在缺乏軟體技術之建置應用下，國內傳統零售通路常受制於有限的商圈範圍而無法擴大市場規模。在零售業國際化潮流衝擊下，國內零售業競爭力正逐漸流失，為協助零售業永續經營，亟須借鏡國際零售商做法，引進新經營技術與理念，提升傳統零售業競爭力。

近年來零售業有許多變革，整體產業仍然處於不確定的狀態，不管是大型購物中心與郵購的崛起都帶給傳統零售業者不小的衝擊，目前所有投資人與企業更把目光都放在網路零售業中，目前仍很難預測網路零售業未來的前景，但是可以預知的是網路將徹底改變零售業的生態與未來的商務模式。近來歐美等先進國家已成功運用網際網路，將電子商務技術應用於傳統零售業（如網路購物、商場管理、客戶管理等），有效突破時間與空間限制，將傳統零售業之經營帶入嶄新的領域，創造無限商機與契機。正值我國即將加入世界貿易組織（WTO），在國內傳統零售業須面臨國際零售業嚴厲的市場競爭之先，擬汲取美

國零售業者運用電子商務提升產業競爭力之做法，俾做為國內零售產業發展政策釐定與推動之參考。

二、實習行程說明

本次行程係委託美國專業電子商務人才培訓公司RealReward協助安排，實習課程包括理論與實務。理論部分均於RealReward公司接受課程訓練，課程內容包括㈠電子商務交易之經濟模式㈡電子商務市場全球化：如何將交易產品配送至顧客端㈢運用電子商務進行供應鍊管理㈣吸引及留住客戶之策略㈤網路構成要素介紹㈥電子拍賣場之賣方系統㈦如何將網際網路運用於供應鍊㈧如何將科技運用於公司管理系統㈨零售商如何建立電子商務之過程等，八天總計四十小時。此外，實務觀摩部分，共計參訪Cesta、Petuniapatch、Webvan、Barnes & Noble、Costco、eBay及Walmart公司之電子商務運作情形。本報告將對上述部分經營成功公司電子商務運作實務做簡略說明。

三、美國網路零售業發展

美國麻省理工學院管理與經濟學教授梭羅（Lester C. Thurow）表示，「網路已經改變既有交易型態，未來只要透過網路，不必走入實體商店，一樣可以採購日常生活所需。預料到

二〇一〇年時，美國半數的實體零售業將消失，將轉變網路零售業」。根據美國商務部在本(九十)年五月十六日的報告指出，全美網路零售業今年度第一季的銷售總額為七十億美元，這個數字與去年同期的五十二億美元相較，強力增長幅度達百分之三十三 ·五，而來自 Forrester Research 的網路零售指數也顯示高於去年第一季二十二個百分點，頗令一般對 Internet 感到灰心的人士振奮不已！

雖然兩項數字也同時顯示第一季較去年第四季跌落百分之十九與百分之四十一，但是由於每年的第四季向來是購物熱季，是各家廠商創造業績的主要月份；反之，第一季則是在瘋狂消費後的清淡時段，再加上報稅季節即將到來，支出自然緊縮；而 Forrester 的兩季差距尤大於商務部的統計，原因在於 Forrester Research 將所有網路旅遊與航空訂位服務的收入均計入網路零售額中，因此，第四季的總收入益形龐大，而兩季間的差距達到百分之四十一。

總體言之，網路零售業能夠在美國經濟衰退，景氣低迷的大環境中逆流而上，創造較去年同期成長百分之三十以上的亮眼表現，顯示網路購物的動能仍然十分強大，個人的消費能力即使減弱，大眾接受電子商務的機會、意願與使用頻率卻相對提

高，因此，網路零售業的市場基礎正穩步放大。同時，兩年多來，網路零售業在整體零售業中一直僅佔不到百分之一的微末地位，值得注意的是，本季以來，卻首度突破百分之一的市場比例，這也充分印證網路零售業的成長加速，才能在傳統零售業中脫穎而出！

進入四月份以後，全美石油價格不斷上升，股市大跌，失業率節節高漲，零售需求與消費者信心指數均明顯下降，種種嚴苛的市場條件，即使對傳統零售巨擘如 Walmart、k-mart、Target 皆造成莫大營運上的挑戰，網路零售行業卻能一枝獨秀，創下四月單月成長百分之三十的成績，延續了第一季的穩定成長趨勢，並未受到市場環境太大的干擾。 根據 Forrester Research 的分析，網路零售已經成為有效的市場行銷管道，也成為傳統零售產業所不能避免的趨勢與走向，各式各樣的傳統商品均已上網，甚至如理論上不適宜透過網路販賣的大型家具產品，不只走上網路，其銷量成長率甚至居四月份網路零售業之冠，顯示網路的適用性正快速普及化。

網路零售業自去年下半年以來，已度過一次殘酷的生存考驗，許多廠商都以第四季的業績作為去留的決策點，Webmergers.com 的統計結果中，今年以來關閉的一百五十六家

知名網站，有半數都是 B2C 的網路零售商，其中包括風光一時的 E-Toys Inc. 及 Kozmo.com；而留存下來的廠商，在體質與經營模式上自必有其可取之處，如若能夠善於利用目前市場轉型的契機，開拓利基市場，未來必能隨著進入快速成長期的網路零售業而共同起飛。

四、美國成功的網路零售業

（一）Barnes & Noble.Com

Barnes & Noble 公司是一家以傳統方式經營的大型書商，已有一百二十五年歷史，並擁有一千多家店面。該公司 一九九八年的營收為三十億美元，它是在主要競爭者（Amazon.com）進入網路世界近兩年後（即一九九七年）才跟進，當時面臨了巨大的障礙。網際網路這種新的經營模式，對 Barnes & Noble 形成重大的技術挑戰，而該公司起步較晚，也使它幾乎沒有時間可以進行實驗。它需要取得一個可用的網站—包括一個資料庫，以便管理數百萬個書目、同時處理數千名同時造訪的網友—而且要能快速建置完成。

採用微軟電子商務克服障礙

Barnes & Noble 利用其強勢的品牌、創新的折扣訂

價結構、五萬多家出版商提供的數百萬冊書、以及對後端配銷及訂單處理的掌控作為後盾，採用微軟電子商務解決方案，快速建立一個具親和力、容易使用的電子店面：barnesandnoble.com。barnesandnoble.com 的工程及產品開發副總裁 Carmella Cassetta 說，「我們和微軟的密切夥伴關係，有助於我們施行一個具延展性、功能強大的電子商務網站。」該公司以三層式架構來建置網站。在使用者介面層級，是網路瀏覽器和執行 Microsoft Windows NT® Server 及其 Internet Information Server 科技的伺服器。其次是商業邏輯層，包括在 Windows NT Server 上執行 Internet Information Server 及 Site Server Commerce Edition 的搜尋、內容、以及交易功能。最後，在第三層以 SQL Server 管理書目資訊。

barnesandnoble.com 成立僅三年，如今已成為二十五個成長最快速的網站之一，也是全世界前五大電子商務網站之一， 一九九八年的銷售額達到六千五百萬美元。目前該公司正在強化其原始系統，其方法是將後端服務系統轉移到一個稱為 PRISM 的新系統，PRISM (Pod Receiving and Integrated Shipping Management System)

是線上、即時、以 Microsoft BackOffice 為平台的出貨、訂單管理和財務報告系統。PRISM 將使 barnesandnoble.com 得以更快速地出貨，並提供更好的服務品質給客戶。

SQL Server 7.0 大幅提高效能

SQL Server 7.0 擁有 terabyte 規模的多重處理器叢集，具備動態橫列級鎖定 (dynamic row-level locking)、平行式查詢 (intraquery parallelism)、分散式查詢等功能，並強化超大型資料庫 (VLDB)，滿足 barnesandnoble.com 不斷擴大的資料庫和記錄需求。barnesandnoble.com 後勤系統規劃及設計主管 Alan Bourassa 指出，「我們開始 beta 測試 7.0 版的時候，我們看到自己的後勤系統效能提高了 100%以上，這項儲存和查詢引擎是絕佳的功能，目前領先於微軟的競爭者。」

SQL Server 7.0 的廣泛功能和穩定性，令 barnesandnoble.com 印象深刻。後勤系統主管 Tom Clarkson 表示，「我們很重視它新的資料倉儲功能，其中包括其查詢效能大幅提高和自然語言查詢功能，這些特性使高階主管很容易就取得他們所需要的資訊。」

整合性與高度可用性

對 barnesandnoble.com 而言，SQL Server 7.0 最重要的優點就是，它與攸關該公司後端作業的其他微軟產品，例如 Site Server Commerce Edition 密切整合。Bourassa 解釋說，「我們後端系統的所有元件都來自微軟，只需要找一家主要廠商支援我們整套 BackOffice 軟體，對我們而言很有價值。」

此外，高度的可用性和穩定性是系統全年無休的關鍵所在，而這也是該公司選擇 Microsoft SQL Server 7.0 和 BackOffice 的另一項原因： 若擁有 Microsoft Cluster Server 的 fail-over 功能，即使兩組叢集中的其中一台伺服器當機，另一台會立即挑起工作，繼續處理。該公司也視所需的效能而定使用磁碟對映或 RAID 5.0 技術，這保證在另一台叢集上執行維修時，仍能切換到另一個叢集而不會造成系統停頓。微軟的解決方案透過整合的資料庫和強大的功能，以絕佳的效率和更順利的資訊流程，賦予 barnesandnoble.com 一個有利的競爭利器。

（二）eBay.Com

eBay 是全球知名的線上購物公司，成立於一九九五

年。該公司在網際網路上發展了非常有效率且被普遍接受的交易網站，每天有超過五十萬個商品、四千項不同目錄在網站上銷售，包括：汽車、骨董、書籍、電影、音樂、錢幣及郵票、收藏品、電腦、玩偶及裝飾品、珠寶、照相機及電子產品、陶器及玻璃製品、運動紀念品及玩具等。eBay 同時也透過其經銷商 Butterfield & Butterfield 及 Kruse 公司，提供一些拍賣業務。eBay（www. eBay.com）上所拍賣的商品內容琳瑯滿目，細分成一、〇八六個目錄。而銷售者除了可以介紹自己的商品外，也可以設計一個自我介紹的網頁拉近與競標者的距離，藉以消除虛擬市場中人與人間冷漠的感覺。網友僅需透過該網站上的搜尋引擎，鍵入關鍵字即可尋找感興趣的商品。

eBay 的電腦系統每個小時會產生一次交易情況的報表，並且存入該公司的資料庫內，以便日後追蹤。並且每天會將最新的拍賣情況以電子郵件的方式通知買賣雙方，以供客戶了解自己的投標狀況是否有了結果，這種完全公開、即時、透明、互動的網際網路拍賣市場經營模式與傳統模式相較，不僅是一種開創性的作法，也突破了傳統經營拍賣業務的策略窠臼，這樣的全新策略與經營模式

也帶來了空前的成功。

以往個人或小型經銷商的拍賣活動資訊大都必須透過小傳單、報章雜誌的小型分類廣告、甚至是靠人們口耳相傳等途徑來傳播。成本效益頗低，資訊散播之範圍亦頗為有限，無法吸引眾多同好來一起競標。傳統的拍賣方式之所以缺乏效率，原因如下:

1.交易場所侷限於地區性，使得交易雙方資訊流通的成本與交易成本皆偏高。

2.貨品種類不多，而每個種類所能提供的樣式也頗為有限。

3.經過層層仲介，購買成本相對增加。

4.資訊不充足，導致買賣雙方無法方便地設定合理的價格。

相對於此，eBay 所創設的網際網路「虛擬拍賣空間」則具有以下之特色:

1.提供買賣雙方充分的拍賣資訊，即時議價，資訊透明度高。

2.買賣雙方直接交易，減少中間人剝削的可能。

3.會員來自世界各地，無地理區域之限制，因此貨品的種類繁多，競標人數也遠遠高於地區性小型的拍賣活動。

4.每天 24 小時全年無休，隨時更新資訊，便利度高。

5.凝聚有相同興趣者，成為一種社群（Community）。透過該網站，會員們亦可結交到全球喜歡蒐集同樣物品的朋友，提高了競標的樂趣。

究竟 eBay 網上拍賣是怎樣進行的？首先，要在 eBay 參與交易的網民，都必須先註冊資料和開一個戶口。這個註冊，是方便 eBay 為每一位買方和賣方建立一個評價紀錄。例如在一項交易中，如果賣方認為買方付錢乾脆，就可給買方一個高評價。而賣方如果貨物對辦、送貨準時，買方也可以給賣方一個高評價。上網參與 eBay 網上拍賣的人，只要查查對方的交易評價紀錄，就多多少少可知道對方是否是個可信賴的交易對象。如果有過欺騙行為，就會被列入黑名單，不能再在 eBay 上交易。當然，有心要欺騙的老千，也是極容易可以找漏洞行騙的。同意交易之後，下來是談商價錢。買者和賣者都可設立一個最高和最低價，然後 eBay 就會調協整個拍賣過程。如果價錢是在參與者的最高和最低價錢範圍內，eBay 會自動出價競爭。

當叫價超越參與者所預定的範圍時，eBay 就會以電子郵件通知參與者，以決定是否更改價錢範圍，還是退出拍賣。在拍賣中的買方在得標後，就得付錢，而賣方收到錢後寄上貨品，完成交易。由於人人都能成為賣方和買方，市場更是不受時空所限制，因此許多商品都能通過這種網上拍賣的方式，賣得很便宜。最妙的是，只要有人要買，任何新舊的東西都能通過網上拍賣找到買主。人人都可以通過 eBay 這樣的網上拍賣站，成為虛擬商人。

（三）Walmart.Com

Walmart 是美國最大零售業，一向是傳統行業的典範。然而，Walmart 的成功，不在於其所從事的行業類別，而在於它將傳統與現代經營模式成功地結合在一起，e 化了傳統企業，從而得以在新數位時代縱橫馳騁，所向披靡。這家世界最大的傳統零售商「不滅的神話」，正是在高科技的鼎力支援下才得以實現的。

供應鏈管理長盛不衰

Walmart 之所以在零售市場戰勝強大對手，迅速脫穎而出，並多年活力不減，最重要的是因為它能真正為顧客節省每一分錢，以「低價銷售、保證滿意」作為經營宗旨，

向顧客提供「高品質服務」和「無條件退款」等響當當的承諾。而Walmart之所以能夠提供「每日低價」和「最周到的服務」，又是因為它比其他任何競爭對手更有高效節省開支的能力。Walmart 採取了快速高效的現代化供應鏈管理，通過對資訊流、物流、資金流的有效調控，利用最先進的技術和設備，把供應商、分銷商和零售商、直到最終的用戶連成一個整體的功能性網鏈結構，以便進行更加有效的協調和管理。可以說，Walmart 是最早嘗試現代企業式管理和資訊傳輸技術的傳統企業代表。

Walmart 不僅改變了競爭邏輯，對傳統零售企業的經營戰略進行了革命性的轉變，即繞開中間商，直接從工廠進貨，從而大大減少了進貨的中間環節，為壓低價格提供了更大的空間。而且Walmart還打破了傳統零售行業的存銷方式，實行「過站式」物流管理，即「統一定貨、統一分配、統一運送」。因此，早在一九七〇年，Walmart就建立了第一間配送中心，由公司總部負責統一訂來的商品全部被送到指定的配送中心，而每家分店只是一個純粹的賣場。

當時Walmart在它的配送中心應用了兩項最新的物流

技術——「交叉作業」和「電子資料交換（EDI）」。供貨商將貨物運到配送中心之後，配送中心根據每個分店的需求量對商品進行就地篩選、重新打包。Walmart 的價格標籤和統一產品條型碼早已經在供貨商處貼好，貨物在配送中心的一側作業完畢之後，被運送到另一側，準備送到各個分店。配送中心配備有鐳射制導的傳送帶，足有幾英里長，貨物被成箱地送上傳送帶。在四十八小時以內，裝箱的商品從一個卸貨處運到另一個卸貨處，而不在庫房消耗寶貴的時間，這種類似網路零售商「零庫存」的做法使 Walmart 每年都可以節省數百萬美元的倉儲費用。目前，Walmart 百分之八十五以上的商品都是由公司的配送中心供應的，而其競爭對手僅能達到百分之五十的水準。與行業平均值相比，Walmart 的銷售成本降低了百分之二到百分之三。

然而，這種配送系統的管理是相當繁瑣的。為了能夠有效協調各方的要求，Walmart 通過電子資料交換來自動提示和控制商品庫存量，使公司總部能夠全面掌握銷售情況，合理安排進貨結構，及時補充庫存和不足，降低存貨水準，大大減少了資金成本和庫存費用。由於使用了電子

資料交換，Walmart 一九九二年的配送成本降至銷售額的百分之三，而其競爭對手所佔比例則高達百分之五到百分之六。

此外，Walmart 還特別投入四億美元的鉅資，發射了一顆商用衛星，實現了全球聯網，以先進的資訊技術為其高效的配送系統提供保證。通過全球網路，Walmart 總部可在一小時之內對全球四千多家分店內每種商品的庫存、上架、以及銷售量全部盤點一遍。

網路零售錦上添花

Walmart 在全球網上零售業中的排名曾經一度淪落到第四十三位，遠遠低於在網路泡沫膨脹時期迅猛發展起來的 eBAY 和 BUY.Com 等「爆發戶」。當美國 Amazon 網上書店迎來第一百萬個用戶時，Walmart 的網站卻只有幾萬人惠顧。在網站經營不振的時期，Walmart 的網上銷售額只占實際總銷售額的百分之三。Walmart 因此被有些人稱為電子商務領域的侏儒。

但 Walmart 沒有因公司網站幾年來的蕭條經營而退縮。新世紀到來之前，Walmart 開始仔細研究網路競爭者的特性，然後制定了一系列有針對性的計畫，尤其是計畫

建立一個從牙刷到電器等無所不包的銷售網站，來與它實力雄厚的配送系統相匹配。新網站將大大增加一些貴重商品如 DVD 播放器和數位攝像機等的品種，網路圖書的書目也將從五百萬冊增加到七百萬冊。這表明，這個傳統零售業的巨人正期望其網路零售業有一個快速的增長。

Walmart 的新型互動式網站使 Walmart 相當於新建了二十五個新商場，同時也使消費者網上購物的選擇範圍擴大了將近兩倍。Walmart 擁有眾多的分支、完善的配送系統、低廉的價格優勢、忠心耿耿的客戶群體，以及強大的技術力量，這一整套的堅實後盾令積極涉足網路零售的 Walmart 可謂如虎添翼。這正驗證了如今網路業最流行的一句話：「e 化的傳統企業等於成功」，只有那些懂得如何搭上新經濟快車的傳統企業才是網路經濟的主角。

可以肯定的是，那些順應數碼時代的需求，懂得如何應用數位化工具的傳統企業，則會因採取了 e 化策略，導入了新經濟管理模式，從而獲得新的競爭能力，如今的 Walmart 就是最好的範例。

五、網路零售業成功因素分析

兩年來，Internet 產業自雲端跌向谷底，造成許多以廣告

收入為主的.com 網站一蹶不振；而網路零售業也同受影響，但各家傳統零售業卻以業務型態與產品路線的不同，出現榮枯兩極化的結果。eToys 等零售網站一夕之間銷聲匿跡，面臨破產保護，資產拍賣的命運；而 eBay、Travelocity 和 Expedia 卻在變局中攻城掠地，業績成長幅度與市場占有率都在迅速增長擴大中。

造成.com 無以為繼的原因很多，自營運模式不佳，網站缺乏明確主題與吸引力，到資金運用不當，存貨過多導致周轉不靈等不一而足；但是，新興的網路零售店能夠在經濟景氣低迷，傳統零售業積極進軍網路通路之際，一枝獨秀屹立不搖，卻只有一個致勝秘訣：那就是網站的企業模式(Business Model)與產品特質必須具有絕對的獨特性與市場價值。

以 eBay 為例，它的成功在於它利用網路創建了一個前所未有的拍賣模式，貨色齊全且具公開性與便利性，由於人們無法在就近的任何傳統舊物店或跳蚤市場可以交換到同樣的物品，因此，eBay 的服務具有無可取代的特質，與牢不可破的市場地位；相對地，Amazon.com 雖然在知名度上不亞於 eBay，瀏覽人次也很高，但由於 Amazon 以書籍產品為主，替代性高，因此，它在業務上的穩定性與利潤率就遠遜於 eBay。Amazon 近期以

來，必須透過不斷的購併與結盟以鞏固其網路零售店的領導地位。

西北大學最近的研究指出，三種類型的電子網站是目前最成功的網路零售典範：一是銷售特殊的消費產品，如hothothot.com 行銷五百種以上的辛辣食品與調味料，由於種類齊全，別無分號，頗受熱愛此道人士之喜愛。而禮品店，如1-800-flowers 則以其提供跨地域的送禮服務，擺脫與一般地區性花店的競爭，對幅員廣大的美國消費市場來說，具有實用性，甚至吸引了許多跨國與跨洲的顧客上網。三是網路售票與旅遊網站，除了 ticker master 等傳統售票服務早已透過網路擴大原有的客戶基礎外，新興的純網路售票網，如 Travelocity 及 Expedia 以銷售旅遊產品，包括網上訂購機票、租車、訂旅館及套裝旅遊服務為訴求，其中網上訂購機票可說是所有零售業務中最適合網路行銷的項目之一，基本上它屬於有明確價值的資訊產品，網路上確定航班、日程及價格後，即可自行列印，不需任何倉儲運遞，節省買賣雙方的負擔與勞務，因此，在eTailing 中的地位日形重要，目前全美有百分之七十五的機票是由網路售出。

零售業是最傳統的商業行為，自大型連鎖商店至小型家族經

營的超商與雜貨店遍佈大街小巷，網路零售業必須具足夠的個別差異化產品服務才能生存。許多失敗的.com 網站，為了彌補沒有店面的不利因素，一味的在價格上下功夫，試圖以壓低售價作為招徠手段，結果效果有效；物美價廉之外，清楚明確的貨架規劃與搜尋功能，快速的運送服務，都是提高客戶滿意與再度光臨的不二法門；同時，區隔市場也是極其重要的差異化作法，與其一網打盡各類型的上網客來瀏覽產品，倒不如區隔出潛在購買者，建立密切的互動交易關係，在特定的區隔市場中提夠各完善的服務，以帶來買家真正提供營業額而非虛幻的上網人次。

網路零售商應該確實掌握網路行銷的優勢，加速凸顯本身的特色產品與服務，以樹立傳統零售所無法取代的地位，同時，充分應用 eTailing 獨有的完整客戶資料與消費檔案，追蹤個別顧客的消費習性，有效的瞄準需求，刺激消費，才能讓人潮變成錢潮！

六、網路零售業交易之經濟模式

B2C(business to consumer)，即網路零售業，堪稱電子商務的開路先鋒。把店搬到網上是人人都能理解的概念—無需租店面、無需裝璜、無需打烊等。但在網路商店的成本結構中，

商品的定價可謂至關重要，它決定著營收和利潤，價格越低，市場需求越高，銷售量也越大。以優惠價打開市場，讓客戶先嘗嘗甜頭，然後經常光顧——這樣的行銷手法並不罕見。但是，當這種優惠從「甜頭」變為芝麻開門式的賣點時，網路零售業也隨之陷入了難以自拔的泥沼：「網路零售店以低價為特色，一旦將那接近甚至略低於成本的定價提高，顧客便揚長而去，因為網店培養了一大批對價格極為敏感的「聰明消費者」(smart consumers)。」

暫且不討論究竟多高的價位算是適當的網店定價，為了跟實體商店競爭，網店的價格至少不能高於實體店的相同商品。Amazon 以五折出售《紐約時報》排行榜上的暢銷書、Buy.com 更是以成本價銷售為號召，幾乎很少網店不打折的。再看實體商店，它們的真正定價也往往不是標籤上的最初價格。通常的做法是，傳統零售商店會以「全價」(full price)銷售新上市的商品，過了季度便削價。從時間上看，節假日往往會有折扣。另外，處於城市遠郊的廠家直銷店(factory outlet)往往比市區的高檔百貨店便宜。

這種以時間、地點進行的「價格差異化」(price discrimination)，其目的是向有不同價格承受力的顧客收取不

同的價格，以最大限度擴大銷售和利潤。當然網店也可以採取這些措施，比如說像 Webvan 網路超市使得選購蔬菜水果更為便利，但在上網購物者中，受便利性驅使的遠不如受價格誘惑的，因此普通網店在使用「價格差異化」的技巧時受到的束縛很大，那些以價格逆向競標的客戶更是分毫必爭。

在消費者的心目中，便利是難以用價格來衡量的。一般人不會去計算因外出購物而消耗的交通費(在美國包括汽油費、停車費、在大都市還可能因無法找到停車位而導致的違章罰款)，更不會有人去計算因購物產生的機會成本(opportunity cost，即用這段時間去工作會賺取的錢)。但是，幾乎沒有人對網路購物的運輸費視若無睹。不管使用郵局、聯邦快遞(Federal Express)、UPS，也不管是普通還是快遞，這筆錢在所有客戶眼裡都是所購商品價格不可分割的一部分。

運送費是影響網路零售業最重要的訂價模式之一。網店為了削弱它對於消費決策的負面作用，費盡心機，採取大致三種不同的手段：第一簡稱「實事求是」，把運送公司的收費表向客戶公開—運輸公司收多少錢，我也向客戶收多少錢；第二種可稱作「堤內損失堤外補」，即將商品定價儘量壓低，靠運輸費賺回；第三種屬於「慈善事業」，收取的運輸費低於成本，甚至打出免

運費的旗號。所謂「免運費」，可分兩種情形：一種是把運送費用打入商品價格，讓某些容易受蒙騙的顧客沾沾自喜，以為撿了便宜；第二種情形是真的不收此項費用，而把它計入宣傳行銷費。

運送費用是多數網路零售揮之不去的陰霾，它的深層原因在於它的低效率。把一千支牙刷分別寄送到一千名客戶家中，跟把一千支牙刷一次性運到一家零售店，其費用會高出數十倍，甚至上百倍也完全可能。零售店的批量運輸，使得單件商品分攤到的運輸費非常之低，而這種高效機制又是在多年的商品管理中發展出來的，其中有很高的科學性。對於網店來說，只有當單個商品的運輸費低於該商品在傳統商店中分攤到的店面維持費用時，運輸費才不會成為包袱，換言之，加上運輸費後的價格仍會有競爭力。這個道理體現在單價較高的商品。舉例來說，電腦和電視體積和重量相仿，但一般電腦的單價均在一千美元以上，而二十英吋左右的電視機則賣兩三百塊，因此運輸費對於電腦的網上銷售算不了什麼，但對於電視很可能會失去價格優勢。其他的例子如罕見的書籍、郵票等，當一件商品的屬性非常獨特、甚至接近收藏品時，它的價格彈性已非常低，因此輸送費用不再成為消費者心頭的痛。正因為如此，戴爾

（Dell）直銷電腦不必為運費操心；Amazon 雖然賣暢銷書賠本，但越是偏門的書越有錢賺。

七、網路零售業之行銷模式

零售業品牌的經營，一般而言是以大量的曝光率行銷來取勝，如此散彈打鳥的行銷方式，往往要耗費不貲，同時是否可以找出目標客戶群，及所定義的目標客群是否有被涵蓋到，其成效難以評估。以台灣而言，生活型態和人口結構的逐漸改變，兩性上網比例漸趨平等，雙薪家庭的增加等，導致上街購物時間減少，造成網路零售業的銷售金額逐年大幅度地增加，這種現象不難理解。

零售業在電子商務的發展上，原是呈現兩種策略，一是將虛擬通路，視為實體通路的延伸，特別是針對可以型錄化和標準化的商品，例如書籍、CD、三 C 家電等，在網路上也增加訂購的管道；另一種策略則不注重網路的交易機制，而是將虛擬通路，視為彌補實體通路上客戶服務的不足，例如網站上客戶留言信箱、FAQ、電子報等功能；而隨著網際網路的進展，零售業已將這兩種策略的分野逐漸模糊，將銷售和客戶服務連在一起，以銷售來增加對終端客戶群的瞭解，進而改進產品及服務，提高客戶滿意度，以客戶服務，來蒐集及分析客戶的資料，進

而端視單一客戶的需求，提出一對一的行銷，促進銷售。

隨著網路事業的長期經營，零售業會逐漸浮出除了銷售流程外，還需有更多的行銷功能來輔助銷售，來滿足零售業者各個階段的不同需求：

（一）會員分級與紅利積點：在網站的經營上，單單是針對所有的網友，提供一致的銷售的功能已不夠；就實體的經營上來說，顧客有分等級，不是所有的網友對營業額有同樣的貢獻度，因此，會員分級或是客戶累積的消費額度可轉為點數累積，對於網路零售店的長期經營，是相當重要的，可以累積客戶的忠誠度，維繫與老客戶的情感，及拉攏潛在客戶的誘因。

（二）客戶關係管理：消費行為分析模組，可以幫助網站瞭解客戶，讓客戶主導，並匯成完整報告，以利網站改進以及做行銷活動；而直效行銷模組，幫助網站藉由各種不同工具做行銷活動，並追蹤分析效益，以達到一對一行銷目的；此外，決策支援分析模組，幫助網站清楚掌握客戶行為，並能匯成統計數據，改進產品開發、推薦銷售，以及網站動線。

（三）其他多樣化的行銷模式：１電子禮券，可以無形中，讓

老客戶主動為零售業者帶進新的客戶群；2產品合購，零售業者可隨時節推出多樣產品的組合優惠；3滿額饋送，零售業者可以鼓勵網友多多訂購，以提供贈品或現金回饋做為獎勵。

採行有效的行銷模式可為網路零售店帶來下列競爭優勢：

（一）提高經營效率：線上動態價格更新及豐富的資訊服務，讓顧客有一個更方便的管道可快速查詢到產品價格及內容，同時也可以結合物流資訊系統讓顧客隨時可以查詢訂單的出貨狀態，在電子商務中心上同時整合資訊流，金流及物流的優勢，將可明顯的提高企業公司全方位的經營效率，例如提高資金週轉率，提升資金運用績效，縮短商品上市獲利（Cash Cow），庫存問題也可大幅的降低。

（二）與顧客更緊密的結合：透過強大的互動資訊系統來分析瞭解顧客需求及消費模式，做好顧客關係管理，在適當的時間、透過正確的通路，來提供顧客真正需要的一對一互動服務，在目前市場激烈競爭的情況下，良好的顧客關係是無價之寶，而誰能掌握不同顧客的心理與消費需求，就能成為市場上的銷售贏家。

（三）強化行銷功能：在互動式資料庫行銷的輔助下，詳細而即時的掌握市場趨勢及核心顧客，與顧客發展良好長期的互動關係，並獲得顧客對企業品牌的忠誠度；而在網路上積極靈活的一對一行銷手法，勢將創造出無限的銷售商機。

八、我國網路零售業發展概況

我國目前網際網路使用者人數已超過五百萬人，網路上潛在的消費者占總人口數的百分之十以上。隨著網際網路使用人口的大量增加，網路零售業也呈現快速成長之趨勢。國內許多零售業網站(如年代網站、Nando Mall 等)，每月交易金額也已經達百萬元以上。而目前國內也有許多大型企業，如遠東百貨、聯強國際、滾石唱片等約百家業者加盟參與國內網路零售業之列。

隨著網際網路競爭的日益激烈，網路零售業者除了某些自行架構網站之外，有越來越多的網站改採用策略聯盟的方式，以「一次購足」(One-Stop Shopping)的行銷原則，提供使用者消費便利性，建立起網站的品牌形象，並增加網站的集客力。

我國網路零售業近幾年來蓬勃發展，歸咎原因，不外乎以下幾點：

（一）過量的擴充與過剩的能力：網路沒有時間與空間的限制，大大吸引那些為了增加業務而投資擴建的公司不用再擔心店面設計、鋪設的問題。

（二）人口統計學上的改變：近幾年來，由於就業婦女的增加，雙薪家庭的忙碌，造成購物型態也跟著有所變動。網路零售業的推動力之一就是消費者對時間管理與價值的考量，大家越來越想要有效率使用時間，因此沒有時間限制以及在家購物的雙重因素，大大刺激了網路零售業市場的成長。

（三）消費者行為：消費者已不像以前那麼容易受品牌所影響，注重品質的消費型態也連帶影響零售業的經營方式。今日，消費者比較不願意花大錢購買名牌，反而比較注意產品的品質及其價值，價格越來越是他們購物的重要依據。

（四）電子零售業的科技改進：目前網路零售業雖不能取代傳統零售業，可是由於電子科技不斷改進，零售業者也越來越多有這方面的經驗，網路零售業比起傳統零售業，科技能提供更便利和更多資訊的改革，因此網路零售也越具吸引力。

根據資策會市場情報中心的估計，一九九九年台灣網路購物市場金額達新台幣一六億三千萬元，平均每人的網路購物金額約為二、一〇〇元，占個人年消費支出的百分之一 •二，主要網路商品及服務為票務（百分之五十四）、保健美容（百分之十三）和三C商品（百分之十）。

資策會市場情報中心統計，一九九九年台灣零售業的市場規模約二兆九、五一七億元台幣，網路購物只有一六 •三億元。在四百萬上網人口中，購物者的比例僅百分之十九，與美國的百分之四十相去甚遠；每人花費在網路上的金額約為二、一〇〇元，與美國的二三、〇〇〇元(折合台幣)相差十倍左右。至於網路購物的商品形態，以票務的規模最大，包括機票、車票、訂房、娛樂與電影票的服務規模占有百分之五十四的比例。傳銷公司開啟網路服務，使得保健美容商品市場蒸蒸日上，達百分之十三。

另根據經濟部商業司委託有關電子商店經營研究報告指出，隨著消費者線上購物經驗逐漸建立與網路零售業者服務日益完善，二〇〇〇年我國網路購物市場呈現穩定成長趨勢，比一九九九年市場規模成長百分之一四三，交易金額為三九 •五億元，預估到了二〇〇三年網路購物市場交易金額將高達一七

四 •六億元，年複合平均成長率為百分之八十一。二○○○年我國零售業總營業額為三兆一、二五一億元，網路購物占整體傳統零售市場規模的百分之○ •一三，以美國一九九九年網路購物占傳統零售市場規模市場規模百分之一 •四比例來看，預估國內網路購物市場仍有很大成長空間。

目前台灣電子商店均提供多管道的下訂單方式，包含線上直接下單、填單後再傳真或郵寄、電郵、電話訂購等，其中有高達七成的消費者直接採用線上下單。至於付款方式，有六成的使用者採取信用卡付款，包括透過 SSL 加密線上刷卡及信用卡傳真兩種方式。資策會市場情報中心預計，在政府開放網路銀行業務，加上電子簽章法將實行，網路購物市場會有大幅成長，估計二○○一年可達六十四億六千萬元。

九、實習心得與建議

近年來由於零售業經營型態快速變革，整體產業仍然處於不確定的狀態，不管是大型購物中心與郵購的崛起都帶給傳統零售業者不小的衝擊，目前所有投資人與企業更把目光都放在零售業與電子商務的結合，雖然許多人對網路零售業未來的前景有不同之看法，但是可以預知的是網路將徹底改變零售業的生態與未來的商務模式，此一發展趨勢可以看出零售業者必須要

不斷的適應時代環境的變革才能在競爭激烈中生存。美國成功的網路零售業，運用電子商務技術，打破既有經營空間及時間之限制，擴大市場利基的成功經驗，大可歸功於電子商務蒐尋快速、比價方便、遞送到府免出門等因素。儘管網路零售的科技逐漸成熟，惟畢竟我國網路零售業之發展尚未臻成熟，許多管理上的議題仍待解決。藉由本次赴美國實習網路零售業之心得，擬對未來我國網路零售業發展提出幾項建議：

（一）創造性的零售策略：零售策略所包括的議題，從尋找、分析顧客開始，到處理商品、建立售後服務為止，策略可以刺激需求，線上需求的刺激是個很重要的議題，零售業者為了刺激需求，必須搶在顧客之前，改變態度與生活習慣，並以銷售方式激發流通與銷售量。一個良好的零售策略可以產生極大的市場影響力，網路零售業者應該極力籌畫具創造性的零售策略，以刺激線上市場的成長，增加銷售績效。

（二）管理通道的衝突：網路經營模式，不僅影響本身企業，也連帶影響上下游的業者。網路零售業者若想經營成功，也必須上下游相關業者的配合，如配送公司、批發商直接透過 EDI 進行商品和訂單事項的溝通，快速與及

時的供貨才能符合網路零售業者的經營效益。因此，可以說線上經濟威脅著中間商的存在價值。

（三）線上產品/服務定價：對於網路交易，消費者在心中會預期網路商品會比一般店中商品的價格低廉。確實，網路零售業者比一般零售業者節省店面租金、人事成本、裝潢等昂貴的費用，因此成本的降低的確會反映在產品價格上。所以，網路零售業者應學習如何在線上訂出合理的價格，否則就吸引不了大批的人潮。

（四）網路商品組合：網路是個新興、獨特的行銷管道，由於其無形、便利等特性，業者在選擇商品組合更應配合網路的特性。不變質、規格化的產品較適宜在網路上銷售，目前網路商店販售的多以電腦相關設備、書籍期刊、花等資訊性、軟體性、服務性、媒體性等產品。此外，「一次購足」也是吸引網路使用者光顧網站、消費的重要原因，業者在選擇商品組合應考量多樣化、搭配性等原則。

（五）網路購物服務品質的提升：網路零售業運用電子商務來滿足網路顧客需求的過程中，常以網站、電子郵件、問卷調查和顧客支援電話熱線等方式與顧客保持經常性的溝通，然而，在過程中，業者也很容易忽視到服務品質

的維持與提升顧客滿意度。網路零售業者必須比一般零售業者花費更多的心思來設計令顧客喜愛的虛擬購物空間，商店店面的設計會大大影響消費者的價值感，進而影響到他們的消費行為，有些業者嘗試以 3-D 畫面呈現商品，目的是保持原來消費者習慣的商店走廊與架上有產品的陳設等，有些購物網站還設計將消費者擺到圖片裡，讓消費者模擬自己選購衣服，看看自己試穿的樣子。為了要吸引使用者消費，業者必須費盡心思讓使用者體會到令自己滿意的購物經驗，例如改善頻寬等上網環境，免去使用者等待、塞車之苦，多利用動畫、走馬燈、音效、閃動廣告等手法，讓使用者充分享受視覺、聽覺等感官刺激。另外，業者應在網站上提供意見溝通之管道，除了讓使用者感到深受業者尊重與重視的感覺，且寶貴的市場資訊也是業者經營的重要參考依據。

（六）品牌管理：國內除了大型的入門網站，如蕃薯藤、雅虎等，或是目的網站，如中時電子報等，可集結大量使用者人潮之外，多數購物網站缺乏品牌知名度，而無法吸引使用者光顧。在網路零售業中，對商品與商店的認同仍是經營重點，業者除了可以在搜尋網頁中刊載廣告之

外，也可以透過在其他非競爭性的網站以及消費者意見團體常上的管道(如 BBS)刊登廣告，以拓展自己的品牌知名度。

（七）創造正確的誘因：正確誘因的提供會刺激使用者消費，例如加強折扣活動、娛樂活動，以便增加使用者光顧網站次數、瀏覽網站時間，進而提高其購物意願。然而，國內網站相對於其他的國外網站，在網路行銷、促銷方面仍有待加強，許多購物網站很少提供令使用者耳目一新、非常心動的購物條件，入會折扣優惠訊息如何傳遞也是業者必須思考的議題。

（八）文化習慣：由於國內購物環境的便利、週休二日制度的實施，以及有些消費者喜歡享受逛街購物的樂趣等因素，再加上傳統零售通路所能提供的方便性(如隨買即可馬上取得)、舒適性、展示性(如珠寶的光澤、膳食的美味)等有時也是網路所無法取代的，因此，業者在經營管理時必須更注意這些議題。

（九）網路交易安全性：網路零售業最終的考量因素仍是網路交易的安全問題。顧客資料如何安全隱密的傳遞、信用卡危機如何解決，在在影響了消費者上網購物的意願。

網路零售業的經營成功，與其管理、後勤系統等配合有相當大的關聯性。業者必須透過優秀的通路、存貨、帳款、訂單、退換貨等管理能力，確保產品安全快速的送達到顧客手中，唯有讓消費者體會到舒適、安全、快速的購物經驗，網路購物市場才能成長快速。

參考資料

一、陳光榮（元智大學企管系副教授），「台灣電價制度之探討」。

二、楊忠川，「電子商務對零售業的衝擊」，《資訊與電腦》，pp. 86-90，民 88 年 2 月。

三、羅家德企劃，陳雪美譯，「電子商務管理指南」，愛迪生維斯理朗文出版，民 87 年 3 月。

四、劉滌昭譯，「網際網路事業熱潮與企業經營觀的改變」，貿易週刊，1676 期，pp. 20-22，民 85 年 2 月 7 日。

五、「Barnes & Noble 建構網路書店」摘自台灣微軟網站 http://www.microsoft.com/taiwan/e-commerce/case/barnes.htm

六、沈蓓芬，「美國網路零售業的市場基礎穩步放大」，民 90 年 6 月 21 日，摘自 PC home Online。

七、金龍網電子商務專欄，摘自 www.maxprofit.com/ecland/trendman02.htm - 66k

附 錄

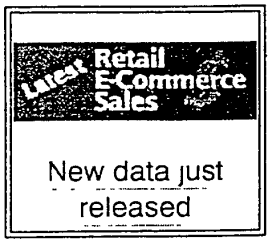
經濟部聯合技術協助訓練計畫

「美國傳統零售商成功應用電子商務提升產業競爭力之研究」實習行程

時間	實習地點	實習內容	備註
7/8(日)	搭乘華航班機前往洛杉磯		
7/9(一)	RealReward 公司	1. 電子商務交易之經濟模式(1) 2. 電子商務市場全球化：如何將交易產品配送至顧客端(1) 3. 運用電子商務進行供應鍊管理(1)	
7/10(二)	RealReward 公司	1. 運用電子簽章進行認證及網站入口管理 2. 如何確保網路交易之付款安全性	
7/11(三)	Cesta 公司	1. 電子商務交易之經濟模式(1A) 2. 電子商務市場全球化：如何將交易產品配送至顧客端(1A)	
7/12(四)	Cesta 公司	運用電子商務進行供應鍊管理(1A)	
7/13(五)	Petuniapatch 公司	1. 運用電子簽章進行認證及網站入口管理(A) 2. 如何確保網路交易之付款安全性(A)	
7/14(六)	例假日		
7/15(日)	例假日		
7/16(一)	RealReward 公司	1. 電子商務交易之經濟模式(2) 2. 電子商務市場全球化：如何將交易產品配送至顧客端(2) 3. 運用電子商務進行供應鍊管理(2)	
7/17(二)	RealReward 公司	1. 吸引及留住客戶之策略 2. 網路構成要素介紹	
7/18(三)	Webvan 公司	1. 電子商務交易之經濟模式(2A) 2. 電子商務市場全球化：如何將交易產品配送至顧客端(2A)	
7/19(四)	Webvan 公司	運用電子商務進行供應鍊管理(2A)	
7/20(五)	Webvan 公司	1. 吸引及留住客戶之策略(A) 2. 網路構成要素介紹(A)	
7/21(六)	例假日		
7/22(日)	例假日		
7/23(一)	RealReward 公司	1. 電子商務交易之經濟模式(3) 2. 電子商務市場全球化：如何將交易產品配送至顧客端(3) 3. 運用電子商務進行供應鍊管理(3)	

7/24(二)	RealReward 公司	1.電子拍賣場之賣方系統 2.如何將網際網路運用於供應鍊	
7/25(三)	Bn 公司	1.電子商務交易之經濟模式(3A) 2.電子商務市場全球化：如何將交易產品配送至顧客端(3A)	
7/26(四)	Bn 公司	運用電子商務進行供應鍊管理(3A)	
7/27(五)	Bn 公司	1.電子拍賣場之賣方系統 2.如何將網際網路運用於供應鍊	
7/28(六)	例假日		
7/29(日)	例假日		
7/30(一)	RealReward 公司	1.電子商務交易之經濟模式(4) 2.電子商務市場全球化：如何將交易產品配送至顧客端(4) 3.運用電子商務進行供應鍊管理(4)	
7/31(二)	RealReward 公司	1.觀摩如何將科技運用於公司管理系統 2.研習零售商如何建立電子商務之過程 3.晚間搭機前往舊金山	
8/1(三)	Costco 公司	1.電子商務交易之經濟模式(4A) 2.電子商務市場全球化：如何將交易產品配送至顧客端(4A)	
8/2(四)	Costco 公司	運用電子商務進行供應鍊管理(4A)	
8/3(五)	Costco 公司	1.觀摩如何將科技運用於公司管理系統(A) 2.研習零售商如何建立電子商務之過程(A)	
8/4(六)	搭機前往洛杉磯		
8/5(日)	例假日		
8/6(一)	上午參加於假日飯店所舉辦之電子商務廠商研討會，下午 15:55 搭機返台		
8/7(二)	20:10 抵達台灣		

U.S. Census Bureau



Measuring Electronic Business: Definitions, Underlying Concepts, and Measurement Plans

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Bureau of the Census

The growth, integration, and sophistication of information technology and communications is changing our society and economy. Today, computers and other electronic devices increasingly communicate and interact directly with other devices over a variety of networks, such as the Internet. Consumers and businesses have been particularly quick to recognize the potential and realize the benefits of adopting new computer-enabled networks. Consumers now routinely use computer networks to identify sellers, evaluate products and services, compare prices, and exert market leverage. Businesses use networks even more extensively to conduct and re-engineer production processes, streamline procurement processes, reach new customers, and manage internal operations. This electronic revolution in our economy is spurring additional investments in facilities, hardware, software, services, and human capital. Ultimately, it may change the structure and performance of the American economy as much as the introduction of the computer a generation ago.

While the burgeoning use of electronic devices in our economy is widely acknowledged and discussed, it remains largely undefined and unrecognized in official economic statistics. The terms Internet, electronic commerce, electronic business, and cybertrade are used often. However, they are used interchangeably and with no common understanding of their scope or relationships. Establishing terms that clearly and consistently describe our growing and dynamic networked economy is a critical

first step toward developing useful statistics about it. This paper presents definitions and concepts to describe the electronic revolution taking place in our economy. They were developed by the Census Bureau for discussion purposes, are based on reviews of available information and consultations with interested professionals, and are intended to provide a frame of reference for developing useful official statistical measures. The paper also describes Census Bureau related program plans for FY 2000 (October 1999 to September 2000) and concludes with a number of questions seeking interested parties views and comments.

1. ELECTRONIC ECONOMY IN PERSPECTIVE

Whatever definitions are used for the electronic revolution taking place in our economy, we must recognize that these changes take place in a larger economic context. For example, global competition, interest rates, laws and regulations, social concerns, industry traditions, and consumer preferences are all part of the broader "environment" which can affect all business activities. Similarly, electronic and non-electronic businesses share an infrastructure of available economic resources, including natural resources, utilities, structures, equipment, telecommunication and other services, employees, and workforce skills. While keeping this larger economic context in mind, the emphasis in this paper is to describe and encourage understanding of the "electronic" portion of our overall economy.

It is useful to think of the electronic economy as having three primary components--supporting infrastructure, electronic business processes (how business is conducted), and electronic commerce transactions (buying and selling). These components are defined and discussed in the following sections, and pictured in Exhibit 1. In addition, it is important to note that a common feature of both electronic business processes and electronic commerce transactions is reliance on the use of computer-mediated networks. It is reliance on the use of computer networks, and the benefits this can provide, that is the

"bottom line" difference between electronic and other kinds of business. This important shared feature is also defined and discussed in following sections of this paper.

2. DEFINITIONS AND CONCEPTS

The three primary components of our electronic economy, and the feature shared by two of them, are defined below. Each definition includes examples of its scope and content. The definitions are intentionally broad to provide an inclusive framework for planning statistical measures, and to allow flexibility to incorporate continuing changes in the electronic economy.

E-business infrastructure is the share of total economic infrastructure used to support electronic business processes and conduct electronic commerce transactions. It includes hardware, software, telecommunication networks, support services, and human capital used in electronic business and commerce. Examples of e-business infrastructure are:

- Computers, routers, and other hardware
- Satellite, wire, and optical communications and network channels
- System and applications software
- Support services, such as web site development and hosting, consulting, electronic payment, and certification services.
- Human capital, such as programmers.

Electronic business (e-business) is any process that a business organization conducts over a computer-mediated network. Business organizations include any for-profit, governmental, or nonprofit entity. Their processes include production-, customer-, and internal or management-focused business processes. Examples of electronic business processes are:

- Production- focused processes include procurement, ordering, automated stock replenishment, payment processing and other electronic links with suppliers, as well as production control and processes more

directly related to the production process.

- Customer-focused processes include marketing, electronic selling, processing of customers orders and payments, and customer management and support
- Internal or management-focused processes include automated employee services, training, information sharing, video conferencing, and recruiting.

Electronic commerce (e-commerce) is any transaction completed over a computer-mediated network that involves the transfer of ownership or rights to use goods or services. Transactions occur within selected e-business processes (e.g., selling process) and are "completed" when agreement is reached between the buyer and seller to transfer the ownership or rights to use goods or services. Completed transactions may have a zero price (e.g., a free software download). Examples of both e-commerce and non e-commerce transactions are listed below.

Computer-mediated networks are electronically linked devices that communicate interactively over network channels. Generally, both electronic devices will be computer-enabled, but at a minimum at least one device must be computer-enabled as in the case of a typical telephone linking with an computer-enabled interactive telephone system. Typically, the interactive link involves minimal human intervention though someone activates the electronic devices, accesses the network, and may even assist with the process or transaction. For example, many e-commerce businesses are providing shoppers with the on-line capability of "chatting" with customer support representatives or even speaking with them through the use of internet telephony software. Examples of devices and networks are:

- Linked electronic devices such as computers, personal digital assistants, webTV,
- Internet-enabled cellular phones, and telephones linked with interactive telephone systems.
- Networks such as the Internet, intranets, extranets, Electronic Data Interchange (EDI) networks, and

telecommunication networks. Networks may be either open or closed.

3. E-COMMERCE EXAMPLES

Examples of e-commerce transactions are:

- An individual purchases a book on the Internet.
- A government employee reserves a hotel room over the Internet.
- A business calls a toll free number and orders a computer using the seller's interactive telephone system.
- A business buys office supplies on-line or through an electronic auction.
- A retailer orders merchandise using an EDI network or a supplier's extranet.
- A manufacturing plant orders electronic components from another plant within the company using the company's intranet.
- An individual withdraws funds from an automatic teller machine (ATM).

Identifying e-commerce transactions often is not as straight forward as the previous examples may make it appear. Some additional examples that demonstrate the complexity of implementing the proposed definition are provided below.

- A consumer visits a bookstore and inquires about the availability of an out-of-stock book. A bookstore employee downloads a digital copy of the book and prints it along with cover. Not an e-commerce retail transaction since agreement to purchase did not occur over an electronic network. However, the right to access the digital archived copy is an e-commerce service transaction.
- Consumer uses Internet to research the purchase of a computer, but calls a toll free number and places the order with an operator. Not an e-commerce transaction because agreement to transfer ownership did not occur over computer-mediated network; neither telephone was computer-enabled.

- An individual visits a retail store and purchases merchandise not currently in stock from a computer-enabled kiosk located inside the shop. An e-commerce transaction since agreement occurred over computer-mediated networks. In contrast, the purchase of a pre-packaged music CD from a computerized kiosk would not be considered an e-commerce transaction. If the kiosk was network linked, the digital music was downloaded, and the CD was mastered within the kiosk this would be an e-commerce transaction.

4. MEASUREMENT COMPLEXITIES

Identifying and measuring e-commerce transactions is new for statistical agencies and it can be complicated. The simple example of an on-line retail book purchase illustrates some of these complexities and points out some of the measurement issues that remain to be addressed.

- Example--John Doe logs onto his computer, accesses the "Bigbook.com" Internet site, identifies a rather obscure title, and purchases it for $20 plus a $4 delivery charge. John pays with his credit card and is told his book will be delivered in 3-5 days.

This simple example involves Bigbook's use of several **additional e-business processes**, assuming they are conducted over computer-mediated networks. These processes include electronic marketing to reach John, an electronic search to find the obscure title, electronic procurement and payment to obtain the book from a wholesaler or another dealer, electronic authentication of John's credit card information, electronic processing to obtain payment from a financial institution, electronic shipping arrangements for delivery of the book, and electronic customer support to e-mail John an acknowledgment, order number and expected delivery date. Understanding the effects of these processes on Bigbook's business operations and costs, its supplier and customer relationships, and its competitive industry position are a significant measurement challenge.

This example not only covers many business processes, these processes also involve **multiple e-commerce transactions**. These transactions include John Doe's purchase of the book from Bigbook and Bigbook's separate transactions with third parties to obtain order fulfillment services, acquire the book for resale, secure credit authentication services, provide payment processing services, and arrange for delivery of the book to John. While comprehensive measures of e-commerce may be wanted to profile all of these transactions, such detailed business statistics coverage would be unprecedented. In addition, the value of e-commerce transactions, like their brick and mortar counterparts, are aggregated and presented by the industry of the business entity selling the goods or services so the industry classification system will impose additional measurement constraints. For example, Bigbook would be classified in North American Industry Classification System (NAICS) retail industry 454110, Electronic Shopping and Mail-Order Houses along with traditional catalog stores. Data on employment, total sales, or e-commerce sales would be provided for the industry as whole; information would not be broken out between electronic shopping and mail order houses. Understanding the industry classification system and its implications for e-commerce and e-business measures is a must for all prospective data users. Moreover, classifying emerging and rapidly evolving businesses engaged in e-commerce activities will remain a challenge for statistical agencies.

An additional complexity is that the transactions relating to John Doe's simple book purchase **involve many parties** and **some play multiple roles**. For example, the parties include John, Bigbook, and at least five third party providers of goods or services to Bigbook. Furthermore, several of these parties play multiple roles, such as Bigbook who is both a seller (to John) and buyer (from a supplier) of the book, and Bigbook's third party payment services provider who is a seller of services to both Bigbook and John's credit card company. As in any measurement program, we need to determine from whom to collect needed transaction data, from the buyer or the seller? While we could estimate e-commerce retail sales of

books by surveying households (the buyers), this would require a very large sample and be very expensive. Alternatively, we could survey on-line bookstores (the sellers), this would be a much more cost-effective data collection strategy that could provide timely, high quality estimates from a very small sample.

The above example also points out that any given business-to-consumer transaction will involve a larger number of related business-to-business transactions. This **transactions multiplier effect** is not unique to e-business; however, its expected growth and continued change will add to the challenge of measuring e-business and e-commerce. Growth in transactions is expected because as e-commerce expands related business-to-business transactions will become more fragmented; participants will concentrate on performing their highest valued-activities and rely increasingly on third parties for lower-value added activities. The measurement challenges of this growth include accounting for the increased volumes, identifying the new e-business players, maintaining up-to-date information for the known players, and avoiding double counting the value of related transactions.

Change in the scope and nature of e-commerce transactions is expected because electronic business methods permit the players to change their roles relatively easily and they increasingly will do so. Examples of changes in roles are today seen in manufacturers and wholesalers who now sell directly to consumers, and in the "virtual" integration of firms through informal alliances that link firms electronically. These new arrangements impose additional measurement challenges including identifying the new players and their roles, maintaining up-to-date information on them and how their roles are changing, and updating data collection methods (such as including direct-sale "manufacturers" in an appropriate "retail" sales survey frame).

5. DEFINITION ISSUES

This section of the paper poses some questions

associated with the proposed definitions presented earlier in the paper and invites comments.

E-business is any process that a business organization conducts over a computer-mediated network.

- The paper provides examples of e-business processes, but the list is not exhaustive. Do you have suggestions regarding additional processes that should be considered?
- The paper highlighted production-, customer-, and internal or management- focused processes. Are these categories useful? Can you suggest alternative groupings?

E-commerce is any transaction completed over a computer-mediated network that involves the transfer of ownership or rights to use goods or services. The definition includes both monetary and non monetary transactions. Some transactions may have a zero price (for example, the download of free software) while other transactions may be paid in-kind or through barter (portal pays for an e-commerce consulting service by providing banner advertising).

- We do not define transaction. Should we?
- Since any e-commerce measure will focus on the value of transactions, not the quantity, should we exclude free or zero priced e-commerce transactions from the definition?
- Do you think barter or trade-in-kind is more prevalent in e-commerce transactions than in traditional transactions? Is it reportable or measurable?
- Do you find the e-commerce examples useful?

E-business infrastructure is the share of total economic infrastructure used to support processes and conduct e-commerce transactions. The definition includes hardware, software, telecommunication networks, support services, and human capital along with associated examples. Measuring the electronic infrastructure will be a daunting task. Since we have no short term plans to begin

measuring e-business infrastructure, we have not focused much attention on it to date, but will begin focusing on it during this coming year.

- Is the e-business infrastructure separable from the broader economic infrastructure?
- What are the priority components of infrastructure that we should focus on?
- Do you have specific examples that would clarify what to include in each component?
- Should human capital be included in the e-business infrastructure? Is it separable?

Computer-mediated networks are electronically linked devices that communicate interactively over network channels. Network channels include the Internet, intranets within organizations, extranets and Electronic Data Interchange networks linking trading partners, and telecommunication networks.

- Do you agree with the decision to include open and closed networks?
- Have we excluded other important examples of networks?

Electronic linked devices include computers, personal digital assistants, webTV, Internet-enabled phones, and interactive telephone systems. While the e-commerce examples also include a computer-enabled kiosk and an ATM as linked electronic devices, in our definition we have chosen to go with a short, rather than a long list of electronic devices to minimize possible reporting confusion.

- Should the list of linked electronic devices include all possible devices or focus only on the most important devices?
- The definition and one of the examples considers a consumer using a telephone linked to an interactive telephone system with no human operator to be a computer-mediated network. Do you agree?
- Fax machines, while clearly electronic devices that can link over network channels, were excluded

because they do not communicate interactively. Do you agree with their exclusion and the rationale? Electronic gas pumps often are linked interactively over network channels with other electronic devices. The device, the electronic pump, can be activated in a number of different ways. The purchaser may "swipe" a credit card, wave Speed-Pass, go to an outside station or inside the store to pay by cash or credit card. Just as in the case of an ATM machine or a computer-enabled kiosk, once the device is activated the consumer can specify the transaction (regular or premium gasoline) and complete the transaction. The electronic pumps also support a number of E-business processes including tracking sales and gallons sold, with links to automated inventory replenishment systems to name a few. The functionality embedded in pumps is expected to grow. For example, BP Amoco PLC is planning to introduce even more sophisticated pumps that will include Web browsers and Windows CE operating system that will even permit the gas purchaser to order fast food at the pump (WSJ 8/17/99). Would you consider the sales of gasoline through electronic pumps as an e-commerce transaction? Why?
Are there other electronic devices that should be added to the list?

6. NEXT STEPS

Beginning in the Fall 1999, the Census Bureau is testing these definitions and concepts with businesses as we undertake an incremental program to begin providing official measures of e-commerce activities as well as providing some limited information on e-business process usage. A more ambitious measurement program focusing on understanding and measuring e-business process effects and quantifying e-business infrastructure depends on additional funding being appropriated in the FY 2001 budget (October 2000-September 2001).

Our measurement strategy is multi-faceted, yet purposeful and is tempered by the absence of any additional funding

for new statistical measures in our FY 2000 budget (October 1999-September 2000). Nonetheless, we believe we must begin measuring and understanding the electronic economy now, rather than later. Faced with resource constraints, our approach leverages our core competencies by focusing first on measuring e-commerce transactions and by exploiting our existing surveys. Since we also do not have the resources or the time to do a comprehensive record keeping practices study, we fully expect during these first collections to encounter unanticipated reporting problems and identify additional measurement issues and complexities. Given these uncertainties, we characterize several of our collections as experimental in nature, but nonetheless believe our efforts will provide invaluable insights for improvements in future surveys.

In FY 2000, we will take the following actions:

- **Conduct a pilot study to measure 4Q 1999 Internet sales by retailers.** Beginning with reference month October 1999 we have begun collecting Internet sales from the monthly retail survey businesses (entire survey includes 12,000 retailers) that responded to a September screener indicating that they currently were selling over the Internet or planned to sell on-line by the end of 1999. If the data are reasonable and meet quality standards, we will publish a separate release on 4Q 1999 Internet retail sales in the Spring 2000. A complete evaluation of the study will be completed by the Summer 2000.

- **Collect e-commerce and e-business data as a supplement to the 1999 Annual Survey of Manufactures.** A supplemental form will be used to collect information on:
  - e-commerce sales (portion of total value of shipments sold over computer-mediated networks)
  - Cost of materials purchased over computer-mediated networks (proxy measure of e-business procurement)

- Indication of existing or planned use of selected e-business processes

A series of company visits and telephone calls are scheduled for the Fall 1999 to identify test questions, assess data availability, and determine where best to collect the information. Data collection, scheduled for Spring 2000 will be done separately from the ASM. Results will be available in early 2001.

- **1999 Annual Retail Trade Survey**. Survey forms have been modified to collect information on e-commerce sales and purchases from the entire sample of 18,200 retailers, with additional information available for several selected industries. Information will be available in early 2001. Specifically industry information includes:
  - **for all retail industries**
    - date firm began selling on-line
    - E-commerce sales for 1999 and 1998
    - E-commerce purchases - indicator of whether retailers are purchasing goods over computer-mediated networks and possibly a percentage of total goods purchased.
  - **Computer and computer software stores and Office Supply Stores** - Questions for all retail industries, plus
    - Breakdown of total sales and e-commerce sales by class of customer - consumer, business, government, reseller (wholesaler or other retailer)
  - **Electronic Shopping and Mail Order Houses** - Questions for all retail industries, plus
    - Retail sales and e-commerce sales for 8-10 merchandise categories

- **1999 Wholesale Trade Survey.** Survey forms will collect information on e-commerce sales and some data on e-commerce purchases. Annual wholesale trade survey includes 5,800 merchant wholesalers.

- **1999 Service Annual Survey.** This survey has been significantly expanded to provide first time coverage

of some 150 new NAICS service industries. We will collect e-commerce sales and possibly some data on e-commerce purchases from almost 60,000 service businesses.

- **1999 Accommodations and Food Service.** We will collect 1999 and 1998 e-commerce sales data and possibly some data on e-commerce purchases from 5,100 businesses.

- **Develop a measurement framework.** The Census Bureau, working in close cooperation with the Bureau of Economic Analysis, is developing a measurement framework for identifying and prioritizing future e-commerce, e-business, and e-business infrastructure measures. An initial framework will be available in the Fall 1999.

- **Initiate Research Agenda.** During FY 2000, the Census Bureau will contract with several private sector firms with the aim of better understanding how e-business processes are changing the firm and its internal operations, re-engineering the supply chain and changing the relationship between manufacturers, wholesalers, retailers and customers, and effects on industries and economic structure. Specific deliverables include the development of a framework for evaluating e-business processes' impact across different sector's value chains, a blueprint of possible emerging industry configurations, and development of a forward-looking e-commerce taxonomy for supplementing existing industry classification systems.

7. QUESTIONS FOR CONSIDERATION

The Census Bureau invites comments on this paper. Specifically:

- Do you have comments on the definitions and underlying concepts presented in this paper?
- The Definitional Issues section of the paper poses a number of questions related to our proposed

definitions. Do you have comments and suggestions?

- What would be your top three measurement priorities associated with measuring e-commerce, e-business processes, or e-business infrastructure?
- Do you have comments and suggestions regarding our FY 2000 initiatives?
- Understanding and quantifying e-business processes effects is not an area where the Census Bureau has much experience. Do you have suggestions regarding survey methods and approaches? Do you have suggestions regarding organizations or individuals that we should consult with? Are you familiar with existing studies that we should review?
- Is measuring the e-business infrastructure a priority? The Census Bureau would argue that it is more important to improve existing measures of the overall economic infrastructure before focusing on the e-business component of the infrastructure, do you agree? What are the most serious gaps in existing measures of the infrastructure? What would be the priorities related to the e-business infrastructure?

Please forward your comments and suggestions to Thomas L. Mesenbourg, Assistant Director for Economic Programs, United States Bureau of the Census at tmesenbo@census.gov.

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Establishing an E-Commerce Business Model

Overview

The Internet has changed the way the world does business. Buyers a suppliers around the globe can now network with the click of a mouse. Information — from terms and conditions of service to specifications and complete, in-depth product catalogs — can be accessed in real-time. And electronic commerce is affordable for e the smallest home office.

There are tremendous advantages in doing business on the Internet can:

- Drastically increase sales
- Improve efficiencies and lower operating costs
- Enhance customer service and communication
- Expand marketing opportunities
- Provide the venue for growing operations from local to global

One of the greatest advantages of doing business on the Web is tha allows businesses to save money and time in their own operations. I example, the Internet can considerably reduce the costs associated with customer service, says F.C. Brigham, director of inbound marketing for Tempe, Ariz.-based Insight and a national keynote speaker on e-commerce-related topics.

But how do you get to this promised land? It's not enough to use you current business model on the Web. Businesses must rethink the iss of marketing, supply-chain management, inventory and customer support, then formulate a Web-oriented business plan. It's a new w of doing business. In essence, your existing business model has to b adapted to meet the technological requirements and advantages of this new landscape.

This Office.com Business Tool (OBT) will guide you through that process by looking at the existing online business models and determine: What are the main types of online business models? Wh are their advantages and disadvantages? And how do you determine which one is right for you?

Outline:

1. Technology Is the Difference

According to Anthony Cospito, founder and CEO of Lynn, Mass.-base PowerGeneration Inc., a provider of strategic marketing and e-commerce consulting to high-growth, Web-focused organizations, tl core of any e-commerce business model is built on the following fiv areas:

- Service

  Ask Nordstrom executives how important service is to their business, and you'll get an earful because it is truly the key to the company's success. For that matter, all good retailers — a e-tailers — realize the critical role that quality customer serv plays in their success.

  There exists, however, a strong dichotomy between what the brick-and-mortar retailer knows about customer service and what the online retailer knows. Many e-commerce sites view transactions as technical processes and not as interactions between people. As more companies realize that the buying experience and what follows after the sale are just as importa — if not more so — as technology, e-commerce sites will reac new highs in sales and popularity. Take Amazon.com, for example: With personalized recommendations, online/off-line customer service and strong post-sale follow-up, the company has created one of the most successful e-commerce brands or the Web.

- Selection

  As with any off-line experience, e-tailers need to offer customers the right mix and quantity of products. On the Web this equates to building a site with personalization and partnering with suppliers that can scale. Streamline.com is a

good example of both extensive selection and targeted offerings. Streamline's food-shopping service offers the same amount of product selection you would find in a brick-and-mortar environment. Through personalization, the site also offers products that shoppers are more likely to buy based on previous clickstreams and purchase behavior. Streamline also allows customers to compare nutritional information with the click of a button, creating a positive user experience that is based on real-world shopper activities.

- **Emotion**

  Emotion speaks to the overall user experience: How do customers feel as they are navigating the site? Do they feel as they are taking a leisurely stroll through one of their favorite stores? Or, do they feel like they are confused and rushed through the shopping experience? It's important for the type c products and target audience to match the design and level o intimacy.

  Forrester Research says that 46 percent of Web users currentl research purchases online. This behavior change will put e-marketers closer to a consumer's purchase decision than traditional media. This also brings them closer to the "emotio 3 feet" that manufacturers have dealt with for years, which is defined as the short distance between a consumer buying you product instead of the competitor's. Today, that emotional 3 feet isn't just a movement to the left or right on the supermarket shelf but a simple click of a mouse. Because of this, brand loyalty and user experiences need to be that muc stronger.

- **Efficiency**

  When it comes to efficiency, think of the express lane in a grocery store. Can you imagine what would happen if every store had 1,000 lanes and no waiting? It is possible online, wh customers want to move through the transaction process as quickly and as painlessly as possible. This means not having tc input the same information twice in one visit; it means offerir one-click ordering; it means tying inventory into the real-time database systems so customers can check quickly to see if a product can be shipped immediately. Efficiency is especially important now, in the initial stage of e-commerce, as the majority of consumers are purchasing for the first time. The g is to have them come away from the transaction thinking, "He that wasn't so bad," and telling their friends they've just made purchase on your site.

- **Cost**

While cost is always important, there is a reason that it is last this list — at least for now. Saving money is not one of the to reasons why consumers are currently shopping on the Web. Th most important aspect is convenience, and if your site is extremely convenient, consumers will be willing to pay a littl more for your products. Of course, as online competition heat up, price will become more important as the majority of products become commodities.

For now, the bottom line of the cost issue is this: Charge as little as possible, but still be able to maximize cash flow enou to fund the technical improvements on the back end to delive powerful and convenient user experience.

These are the same five building blocks as in traditional business operations, says Cospito. The difference, however, lies in how the strategies are executed. For instance, in traditional business operations, quality customer service is achieved through developin and implementing policies that allow for open communication with customers that enhance the experience they have with your organization.

On the Web, good customer service is achieved through a combinat of technology and human interaction that personalizes the experience, answers questions and guides customers through the si

By definition, traditional retail operations are also, by nature, somewhat limited in providing convenience — mostly because customers have to drive to a physical location. And most do a poor of really knowing a customer's purchase history and preferences, Cospito says.

"Put simply, consistency in service, selection, emotion and efficien are limited in the brick-and-mortar world because they are built on people and not technology," says Cospito.

E-commerce breaks down the majority of barriers that most traditional brick-and-mortar operations face. A robust e-commerce site has the ability to:

- Streamline inventory management, hence shipping goods seamlessly and directly from a wholesaler/distributor to the e customer.
- Penetrate markets worldwide.
- Enhance a brand through an "instant" global presence.

- Improve customer service by leveraging the Web as a communication tool.
- Cross-connect buyers and suppliers in a "virtual" manner via tl Internet, thus providing a forum where a buyer's exposure to wanted goods and services and a seller's exposure to prospect buyers, are limitless and without boundaries.
- Decrease most of the associated traditional costs — rent, capital, inventory, sales and marketing — associated with a traditional company's operations.
- Provide an easy and inexpensive way to test a product or serv before full deployment.

ın example of a site that was able to improve its business model us he Web is musical equipment auctioneer RockAuction.com. tockAuction is operated by Daddy's Junk Music Stores, a traditional brick-and-mortar store specializing in used musical equipment. RockAuction leverages its online business model (with auction software provided by OpenSite Technologies Inc.) to sell its invento of close-out and lesser-selling items at a profit. "They were selling such goods at a loss until they incorporated an e-commerce model with auction capabilities," says Cospito. "Their first year in sales is projected to be in the several-hundred-thousand-dollar range."

2. Existing Online Models: Pros and Cons

Due to the expansiveness of the Internet, companies of all sizes anc from all industries are scrambling to test a wide variety of business models to see what really works. Some of the models are well-developed and carefully thought out; others are not. Before you sta playing the "hit-or-miss" game with your own e-commerce venture, check out the pros, cons and requirements of each of the following models, which are already being used successfully online:

Selling your own products and services

The biggest advantage of selling your own products online is contro over quality, price, inventory and distribution. With centrally locat operations — and no dependency on suppliers who can hold up shipping time frames — risk of error is limited. Middlemen are cut (of the deal, saving another layer of expense.

The real challenge lies in developing the infrastructure to manufacture and ship products at break-neck speed and on an affordable scale. One company that is using this model successfully Omaha Steaks. This 92-year-old company has effectively adapted it mail-order business model to work on the Web. By selling their own

high-quality, high-end meats and gourmet foods online, the firm ha increased sales exponentially through its newfound sales outlet. Omaha Steaks' online strategy is revolutionary from the perspective that they are doing it "right." Unlike many other online retailers, th are incorporating a well-rounded e-commerce approach, including:

- Offering Internet-only specials (i.e., a free knife set with an Internet order) to drive sales, thus recognizing that the cost o acquisition per customer from the Internet is less than the co: from traditional channels (i.e., mail-order catalogs).
- A partner program that gives other Web sites the opportunity earn referral fees for any visitors they refer to the company w complete a purchase.
- Incorporating customer-retention tactics by adding value-add information to their site (i.e., recipes, "Food Facts") and community-building forums with its "Recipe Exchange," a plac where visitors can share information.
- On the downside, a company like Omaha Steaks, which has to handle everything itself, can experience manufacturing and inventory headaches along with the challenge of effectively balancing supply and demand. Most companies need at least t following to establish their own e-commerce presence:

  I. In-house Web server, co-location Web server or hosting provider;
  II. Internet Merchant Account (IMA) (with bank or other 3rd party financial institutions);
  III. Credit-Card Processing Technology (Cash Register Servic i.e., CyberCash);
  IV. Shopping Basket Technology (Virtual Shopping Cart);
  V. Security/Digital Certificates Technology (SSL);
  VI. Fulfillment systems/database integration;
  VII. E-commerce enablement software.

According to Cospito, start-up costs for an e-commerce site typicall run from $1,000 to $100,000 and up, depending on the solution desired. Traditional "levels" of solutions include:

A. "Starter" Level — under $1,000

   Basic Web storefronts that require little up-front investment f the "mom-and-pop" operation. Typical features at this level ai

   - Rental-style solutions — lease commerce space from a hosting provider

- Simple tools for setup and configuration
- Template solutions
- Transaction-based fees (For example, AT&T Basic servic costs $395 per month and includes the customer's first 5 transactions. Additional transactions cost $3 each.)

B. Merchant Level — $5,000 - $10,000

Turn-key, complete solutions for setting up shop on your own server. Typical features at this level are:

- Templates for online catalogs and databases
- Interface for changing items and prices
- Database interfaces to existing back-end systems for orc fulfillment and a range of automatic payment options
- Cash register software or integration with leading providers

C. Corporate Level -- $10,000 - $100,000 and up

This level includes companies with high-volume sales level. Typical features are:

- All features of merchant and starter levels
- Enhanced interface support for existing systems (i.e., solutions are open and scalable for exponential growth)
- Integration with legacy systems and external data source
- Intranet and extranet functionality for particular audien (business partners, premier customers)
- Cross-selling, upselling and personalization features that enable richer relationships with customers.
- Highest levels of data integrity and security for authentication and authorization

Distributing products for a specific industry

When a company decides to act as a distributor for one specific industry, it gains deep product knowledge across several manufacturers and the opportunity to offer a good selection. At the same time, the firm learns about its customers' purchasing habits, thus opening the door to cross-selling and upselling opportunities (offering similar items from different lines, or items that compleme

a customer's original purchase). Requirements for this model are similar to those in the "Selling Your Own Products and Services" model, though Cospito says that some of the third-party solutions available are specifically geared to particular vertical markets. (Example: Web Catalog from Pacific Coast is tailored for traditional catalog merchants.)

Perhaps the best example of this online model can be found at Amazon.com. The company has put itself at the forefront of the e-commerce wave by offering consumers a convenient way to buy boo online. With no physical inventory to stock or paper catalogs to prir the firm's online inventory is basically limitless.

On the other hand, supply-chain issues may crop up when promises are made to customers and vendors don't deliver on time. So real-time inventory management software (which allows retailers to knc where an item is and in what quantity — even at the manufacturer' location) is key, and a common stumbling block to many burgeoning Web start-ups. You also may experience limited price flexibility.

Companies like Atman Inc., a Los Angeles-based reseller of computc hardware, software and peripherals, use strong connections with vendors to deal with the real-time inventory management. Frank Khalili, Atman's sales and marketing manager, explains: "This is a ve complex issue, and we handle it through our connections with our vendors. We use a software program that tells us what's in stock an provides accurate ship dates — really, it all comes back to technology."

Selling a Variety of Goods and Services

With this model, a company offers a wide variety of goods and/or services across many industries, attracting a wide demographic of customers. BuySafe.com is a good example of a company that is currently using this model successfully. BuySafe's own "shops" incluc one for gifts (with search capabilities based on gender and age), flowers, music, video games and lingerie. Collectively, BuySafe.con stores offer consumers a selection of more than 2 million items. Th site also has "private-label storefronts" that are essentially links to other Internet sites, including GeoCities, the Los Angeles Times anc greetings Network.

The downside of this "private label" model lies in branding and positioning. For example, if you host a store on your site from a thi party provider, such as BuySafe.com, be sure to extend your brand the end customer so that when they get the product in the mail, yc firm is somehow represented in the packaging. The inherent challer here is that if the packaging or product is not entirely up to snuff, 1

will reflect poorly on your company — so choose your partners wise

"Trying to be all things to all people can alienate some users and cause headaches on the back end," advises Cospito. "To effectively build this type of model, a company will need a well-developed bac end system whose logistics are closely managed."

The online auction

For customers looking for more than just the average online shoppi experience, what's better than an online auction? With this model, real-time interaction is exciting to consumers, who can bid on low- and high-ticket items from their computer keyboards. To succeed i the auction category, companies need cutting-edge technology in order to return accurate results and data-parsing capabilities, and t understand and translate trends in consumer buying cycles.

One need only look as far as eBay to see how successful the auctior model can be. With humble beginnings as a place to trade Pez dispensers, eBay created a new market: efficient one-to-one tradin in an auction format on the Web. Individuals — not big businesses - use eBay to buy and sell items in more than 1,000 categories, including collectibles, antiques, sports memorabilia, computers, to Beanie Babies and more.

By purchasing auction software from a vendor (e.g., OpenSite Technologies, WebVision or Moai), you can establish an auction Wel site. Your prices will typically be set by competing online customer Some Web auction sites are used to move inventory at a single clearinghouse; others invite sellers to provide their goods and servi to prospective buyers at the site.

The downside is that the newness of this model may confuse people who may get disappointed when they are outbid. And sellers may become irate if there are technical problems (such as access to the site) that cut down on the bids they receive. There is also the dang that sellers will not deliver the items as they were represented in t online sale.

The bottom line: Proceed into auctioning with caution and a solid strategy as to how it fits into your overall mission. The Web is full c great opportunities for revenues, but the old carpenter's rule applie here — measure twice, cut once.

Full price or discounted merchandise?
By offering items at full price, companies benefit from higher margins, the ability to compete on "added value" (giving customers

more than just the product) and strong brand positioning. Accordin to Cospito, many sites actually charge more than traditional businesses when all is said and done after shipping. However, to compete effectively in the full-price realm, a firm must have statu well as enough value and brand equity to drive sales.

"Convenience is king and will be the reason most users will buy online," he says. "Future online loyalty programs will provide some form of discount to dedicated customers," he adds. "A firm called Cross Promote will launch in 1999 to address this very issue."

By featuring discounted merchandise, companies can attract high traffic levels and post high-volume sales. But competing solely on price can be dangerous — both for the company and its suppliers. Margins can only go so low, and it often turns into a matter of "survival of the fittest." The more successful sites will not compete price alone, says Cospito.

For discounters, the major requirement is having enough cash flow keep operations running. At the same time, a firm needs to have strong marketing skills to spread the word that they are the "low-pr leaders."

As competition heats up between online sites, price will become m important as the majority of products become commoditized. This especially true with the proliferation of price bots, services that as online shoppers with finding the lowest-priced goods on the Net. Outside of the prestige marketplace, the bottom line with cost is tc charge as little as possible but still be able to maximize cash flow enough to fund the technical improvements on the back end to deli a powerful and convenient user experience.

Co-branding

This model, which involves an online site that acts as a platform where site members go to purchase goods and services from third-party suppliers, is new to the Web and being used successfully by Xoom. Companies using this model have created a new way for consumers to shop online by gathering a variety of Web merchants together on one e-commerce site. For example, XOOM's home page provides members with access to other popular online venues such Amazon.com, eBay and BuyDirect, allowing them to purchase anyth from music and electronics to computer hardware and software — often at special member prices.

Labeled a "zero-gravity" business model, XOOM.com acts as a platfc where members go to purchase goods and services from third-party suppliers, all under the XOOM brand name. Beyond XOOM's eclectic

array of free services that bring members back again and again, the site permits members to pick and grab XOOM's services for use in other venues on the Web. For example, XOOM allows members to li chat rooms and page counters from its site and incorporate them in their own personal Web pages or even a Geocities-branded home page.

"Companies like XOOM, a site which is essentially an online direct marketer, are primarily interested in generating hits through site membership, and attracting people to the site's many services and online retail partnerships," says Cospito, adding that they do this through the incorporation of "portal" features, which may include:

- Free home pages for customers — large server(s) are required support this partitioned area of the site.
- Chat software — Builds an online community. iChat, Paralogic Software Corp and eGroups are examples of chat software providers.
- E-mail services — robust e-mail server software and system th facilitates a Web-based sign-up.
- Greeting cards — Personal, graphical messages in the traditio of typical greeting cards that members can typically send to acquaintances for a small fee, or for free.
- Video Streaming — Real Video, VDO live, or other technology audio and video capabilities on the site.

On the back end, sites like XOOM do stock some inventory, such as software. But the vast majority of its sales are made up of products that the company never physically touches, instead acting as an eclectic platform for the goods of other online merchants.

"The back-end systems that companies like XOOM rely on should be robust and scalable — robust enough to track buying patterns, preferences, demographics and other quantitative measures of its huge audience — and scalable enough to handle millions of daily registrations, site visits and banner ad clickthroughs from its audience," Cospito advises.

3. When You Already Have a Business

Existing companies are turning to the Web as an additional low-cost way to reach customers. But since their businesses are not "Web-centric," they must develop a strategy to determine what role the Web will play. Does the Web completely eliminate the need for bric and-mortar locations? Or does the Web simply expand market share

possibilities? As an example, a specialty Greek deli in Boston has a Web site that features its best-selling products. The site is promote in the store, so that when tourists come in and fall in love with the breads and cheeses, they can continue to buy them whether they li in Oregon or Oshkosh.

In many ways, setting up shop on the Web is not unlike setting up shop in the brick-and-mortar world. "All the rules of marketing, customer service, layout and inventory control apply," says Cospito

Ideally, an e-commerce site brings together the worlds of strategy, design and technology to create a product that provides powerful results and memorable user experiences. You also have to master back-end integration, which involves the tracking and replenishmer of inventory, shipping and receiving, and subsequent customer serv on an as-needed basis.

A fancy Web site might attract cybersurfers to make a purchase, bu they won't be back if they don't come away with the right product, the right time frame, and if they're not supported by the right level service.

E-tailers need to analyze and increase their "look-to-book" or "browser-to-buyer" ratios. These four factors will assist in doing jus that:

- Intuitive design and navigation — Make it easy on visitors to locate products and click through the site to purchase them.
- Alleviate security concerns — Integrate and communicate encryption standards; offer incentives to encourage first-time buyers.
- Fast Checkout — Implement one-click ordering wherever possible, fast load time of shopping cart pages, and don't forc users to enter redundant information.
- Customer Loyalty — Institute a no-hassle return policy, integrate personalization, and develop a loyalty program.

Existing businesses that are opening their doors on the Web must be sure to alert current customers about the new offerings. Why? Thin about the loyal customer who stumbles upon your biggest competit user-friendly, content-rich Web site, not even realizing that your business is online, too.

"It's important not to hurt your existing customer base," says Brigha "You must educate them about your new services and the new tools that they can take advantage of via your Web site."

	Metric	Range	Levers	Blue-Ribbo Examples
Site Navigation	Page views per items ordered	2.0 to 8.0	- Bestsellers on home page - Fast search engine - Collaborative filtering - Fast downloads	- Peapod - Computer Literacy - iQVC
Purchase Risk	Ratio of first-sale revenue to fourth-sale revenue	10% to 30%	- Discounts or free shipping - Inexpensive options - Secure site - Third-party auditors	- Cyberian Outpost - Traveloci - Wal-Mart Online - Lands' En
Checkout Speed	Ratio of abandoned shopping baskets to total orders	5% to 10%	- One-click ordering - Price including shipping below competitors - Credit card over phone for first-timers	- Amazon.cc - NECX-Direct - CDnow
Customer Loyalty	Ratio of repeat visitors to total visitors	15% to 25%	- Loyalty programs like miles for dollars - Personalization - Ratio of returns to sales - Rapid customer service	- Columbia House On-line - Garden Escape

4. Starting From Scratch on the Web

If your company is originating on the Web, it's not alone. Each day, millions of entrepreneurs launch successful, viable business entities cyberspace. Whether they're working from home or running their operations from an office and/or warehouse, it makes no differenc to the consumer. PowerGeneration, Inc. developed the following Venture Capital Acid Test TM to assist in analyzing the viability of a e-commerce concept:

- Give an analogy of where this model has worked with this tar audience.
- What are the sizes of your nearest three competitors?
- What competitors have failed in this space?
- Are you doing something that has never been done?
- What is your unfair advantage?
- What contracts do you have in place? How much are they wor
- What is your current valuation?
- How do you know people want this product/service?
- What is your personal background?
- What experience does your executive team bring to the table
- How many employees do you have now? Next year?
- What are your customer acquisition costs?
- How much do you depend on alliances?
- What are you doing to drive traffic to your site?
- What are you doing to attract business?
- What is the lifetime value of a customer?
- How will you build the brand?
- How protectable is your market position?
- Why are you better?
- Explain why your model will scale
- What could cripple your business?

PowerGeneration, Inc. 1999

5. Defining Your Online Niche

Finding your business's unique niche in, say, a small town atmosphe is relatively easy. It works like this: A new business owner simply discovers what's missing in their town — a pizza place, for example

then builds one. But online, nearly every business in the world is represented, and with a simple mouse click, consumers can get the hands on products and services from across the world, not just in th backyards.

When Royal P. Farros, CEO of iPrint in Redwood City, Calif., sat dov to figure out what his company's niche would be, he thought of all t the people in print shops across the country, trying to figure out wh their business cards would really look like when delivered. The traditional process forced them to create visual items in a non-visu way, he says. He knew there had to be a better way.

Because pictures can be digitized, they can be sent over the Intern — a more efficient means of distribution for companies producing corporate materials, often under tight deadline pressures. At the same time, Farros also discovered his firm's core competency: It allows users to see exactly what they're creating and proof it right t the spot.

"We're dramatically improving the traditional process, which is frau with problems, and that's our business model," he states. "We're als more reliable, which means tremendous cost savings due to a decrease in waste. In the traditional process, 10 percent to 15 percent of everything printed has to be redone. With our way, it's c 1 percent, which means not only cost savings, but also customer satisfaction. They're getting what they want the first time."

According to Farros, his online business model is simple because his company does the same thing that the printing industry has been doing forever, only in a much more effective manner — namely because iPrint is online, always open, visual and connected. "You c use our system to press a button, and it goes off to what we refer t as the 'all star printers' in the industry," he explains. "For example, who better than 3M to print an order for 500 Post-It Notes?"

"We sell print like any other print shop," says Farros. "The big difference is that we bring a selection of great features to what ha traditionally been a bad process, and established a niche because o it. People often ask us to 'throw in' other items, like clocks and shir into their catalog, but our primary focus is, and will continue to be custom imprinting."

Overall, firms need to develop models that are differentiated on m fronts. Being better from a technical standpoint is dangerous, since competitors can copy technology. Having better prices is even more dangerous; price wars have sunk many a company. Success will be b by firms that apply cutting-edge technology to the needs of their target audience and do it in such a way that the competition can't

copy or that takes too long a long lead time.

6. Aligning With Reliable Supporters

All e-commerce sites that rely on vendors to supply their products must give strong consideration to buying from the best possible suppliers in each product category. Issues like shipping times, condition of products and "best price" all come into play when a company chooses to act as distributor, and it is vital that vendors understand the importance of keeping customers happy — especial online, where a simple mouseclick can send them to another, simil site on the Web.

An example of an online company that chooses its suppliers with ca is Food.com. Founded in 1996, the Seattle-based firm has been recognized nationally for its high-quality, diverse product offering, well as ease of use and a secure online-ordering system. The Biz Ra Guide ranked the site as the top gourmet food site, as well as one c the Top 25 shopping sites. The company scours the world and fancy food shows looking for unique "best of category' products, which ar then put through rigorous taste testing prior to being sold on the si

"Because we offer the broadest selection of 'best of category' specialty foods on the Internet, it's critical that our suppliers not or meet the highest quality standards possible, but also provide superl customer service," says Bill Cuff, company president and CEO. "We hand-select the products for their quality and uniqueness. Our supplier companies are rigorously screened to be certain that they will adhere to our fulfillment guidelines — and we stay on top of them to make sure orders are shipped when promised," he continue "Additionally, we've tried to be very clear about our shipping polici so customers know what they can depend on."

At Proflowers.com, in La Jolla, Calif., aligning with reputable suppliers was a must. The company's vice president of marketing, Barbara Bry, says her company was conceived as a way to provide consumers with fresher flowers at better prices by cutting out the middlemen (distributors and the retail store).

"When sending flowers in the traditional model, consumers never really knew what they were sending," she says. "Moreover, the flow most likely had spent several days going from the grower to the ret store, and during that time, they were dying."

To solve the problem, Proflowers.com established a network of premium growers. Because of this, the company can design the arrangements and maintain quality control, all without keeping any inventory.

7. Adding Value

"Adding value" is a term being used across all industries. It simply means giving customers more than just a product in a box, whether it's through convenient ordering systems, excellent product support money-back guarantees. For example, elimination of the middlema — a phenomenon that is fully utilized through a direct-selling chan like the Internet — can add value in terms of money and time (delivery) savings.

"Middlemen will need to have a keen understanding of the shifts taking place in how technology affects their role," says Cospito. "Those who 'get it' will find their role changing as they add value in new ways. Those who hide their head in the sand will be disintermediated in a heartbeat."

Brigham says because cyberspace is currently an "unlimited" mediu in terms of space, product selection can be limitless, as well. "The more products, services and ease-of-use you can provide, the more value you will be able to add," he says. "For instance, an e-commer business can offer 100,000 products vs. the 40,000 that can be foun in a print catalog or in a retail location. In addition, another value-added service we can give to our customers is knowledge — not onl of our own products and services, but also of their buying history."

Keep in mind, however, that an endless array of products and servi brings an endless array of challenges. Think about when you're runr late and need something from the supermarket that you've never purchased before. You run around in circles, up and down all 20 ais if the staff isn't available to help. Twenty minutes later, you may o may not find what you were looking for. Your site needs to address this issue up front with an effective search function or, at the very least, a site map. While offline customers may have already parked the car and entered your store, making it more difficult to go someplace else, on the Web, the competitor is only a click away.

Bry of Proflowers says that her company prides itself in its ability t add value for customers. She explains: "We add value for our customers by providing excellent customer service. This is done through the three e-mail messages that customers receive from us: a confirmation just after they place the order; (2) an e-mail when t flowers are shipped; and (3) an e-mail when the flowers are deliver (because usually the sender and the recipient are different)."

8. Convenience Is King

Today, an increasing number of customers are being lured by the

convenience of shopping online. And while products seem like the most logical attraction for consumers who want to shop from the comfort of their own homes, service-oriented companies are also benefiting from the e-commerce boom. Whether a firm is involved selling healthcare, legal or graphic design services, the Internet serves as a viable sales channel, as well as a great way to "get the word out" about a company.

Take, for example, insurance. While it may not arrive on a custome doorstep in a neatly wrapped brown box, insurance and insurance-related information is being peddled on the Web like crazy. In fact, according to Forrester Research, online insurance sales are expecte to grow to $4.1 billion by 2003. One company, Reliance Group Holdings, Inc., headquartered in New York City, has specialized property and casualty insurance operations and an information technology consulting business. It is combining customized professional liability insurance coverage with Internet capabilities t benefit the 180,000 members of a national trade association. A testing phase is already underway, and association members will be able to submit underwriting information electronically and renew coverage online in 1999.

"Reliance is demonstrating that e-commerce can be a powerful tool the property and casualty insurance marketplace for serving businesses as well as consumers," says Saul P. Steinberg, Reliance's chairman and chief executive.

"Although e-commerce is still a small part of our total book of business, it is growing rapidly and is an important example of how Reliance is differentiating itself from the competition."

Banking is another service industry that's making its way onto the Web. In March 1998, Net.B@nk became the first Internet bank in th country to become profitable — no small feat a 2-year-old Internet startup that battled the cynicism of its brick-and-mortar counterpa to set up shop on a new, untested medium.

The concept of online banking is attractive to consumers for many reasons, in addition to sheer convenience. Because of low overheac expenses — since there are no branches to maintain and fewer staf — cyber-banks can parlay their reduced costs into better interest rates on traditional banking services like money market accounts, interest-bearing checking accounts and CDs. Additionally, Net.B@nk offers its customers perks like automatic, online bill-paying, 24-hou account access and online brokerage services.

All of Net.B@nk's transactions are conducted over the Internet and customers have access to their accounts from any computer that ha

modem and Internet access. Unlike the handfuls of large banks that have taken the plunge into cyberspace and established a presence on the Web, Net.B@nk is of a different breed. Instead of providing Web access as an added convenience, this institution offers all of its services exclusively over the Internet.

9. Thinking Globally

The Internet forces companies to think globally because, unlike the real world of brick-and-mortar stores, sites online are inevitably going to attract international customers. At that point, companies have to either branch out with a site that allows customers worldwide to conduct business with them, or they must decide to stay focused on domestic business. Either way, Brigham advises making the decision up front and clearly spelling out what your intentions are in this realm.

"We've found that it's easier to tell people up front exactly who you are servicing rather than get them through to where they're ready to conduct a transaction, and then say, 'Oh, you know what, we only service the United States.'" says Brigham.

As much as the Internet facilitates international commerce, many businesses limit electronic sales to a more confined geography by choice. Take Quill Corp., for instance. Based in Lincolnshire, Ill., the direct marketer of business products chooses not to do business overseas. "We are getting smaller companies and individuals ordering from the Web site [as compared to the company's catalog sales]," says Lowell Meyers, director of electronic media. "These are not qualified prospects whom we would have mailed [a catalog to], and it's really been spread out. We do limit our transactions to the 48 contiguous states, and we get requests for orders from foreign countries, but we have to notify them that we don't ship internationally."

Much of the reason for company's reluctance to ship overseas involves the fact that electronic sales of hard goods are still subject to the same old headaches of international laws, tariffs and shipping. International tax calculations are extremely complex, involving merchant banks following numerous laws from various nations, equally numerous tax structures and many new nation-by-nation taxes aimed specifically at the Internet.

Domestically, some companies have found ways to work around laws that until recently seemed to require merchants to pay taxes whenever they had a legal presence in the same locality as the online buyer. One point of clarity lies with the recently adopted U.S. moratorium on taxes for Internet "access," which clarifies that online merchants must pay existing sales and use taxes but that they will be treated the same as mail-order houses, which are taxed according to

the location of their inventory.

10. Designing a Site That Drives Traffic to Your Door

Some businesses looking to expand into e-commerce get so dazzled the potential that they forget the basics. Even the smallest site on Web demands an advanced business, marketing and advertising plai to attract visitors. Sites need regular maintenance and fresh conter to keep customers coming back. If you don't have a site that makes people want to visit it, then you won't have repeat visitors — or repeat business.

Remember that while your internal workings may be very complex, the only thing the customer sees is your Web site. Because of this, design of a virtual store's Web site often determines whether shopp on the Internet will be heavenly or hellish. And creating a high-qual e-commerce site is as complicated as building, furnishing and stock a physical store at the mall, so it's essential to have the right tools creating your virtual storefront.

"A successful e-commerce site does more than simply display a catalog, let customers fill shopping carts, and then bill the custome credit cards," says Cospito. "An easy-to-use Web store makes customers feel welcome, has an intuitive look and feel, helps the customer find whatever he or she is looking for (perhaps by using a search engine), is up-to-date at all times, and behaves in a consiste appropriate manner."

Brigham of Insight advises that "keeping it simple" is the key to success when it comes to creating a site that attracts and retains customers. "I came onto the Web as a graphics designer, and wante to make pretty pictures that spun around, but it just doesn't help online sales," he says. "I wouldn't take away all of the graphics, but time is important, and if we value our time, then we value our customers' time."

Brigham further advises that it's important to have a comments link every single page, so customers can tell you whatever is on their mind. "And be receptive to it because you won't always hear what y want to hear," he warns. "Track the comments, and listen to your customers."

Summary: Points to Consider Before Your E-Commerce Business Goe Live

- Make sure your business model is sound
- Always listen to your customers
- Deliver freshness; don't remain static or rest on your laurels

- Update your site as frequently as necessary
- Know what you don't know — and outsource when it makes sense to steepen the learning curve
- Hire best-of-breed employees that have a solid experience in the marketspace (have an e-commerce team made up of strategists, technologists and designers)
- Consider whether the back-end inventory systems will be integrated with real-time e-commerce transactions
- Identify potential distribution channel conflicts before they actually arise
- Determine how well your brick-and-mortar brand positioning \ translate over to the Web (If you're known for excellent servic be sure to offer advanced personalization, intelligent search tools and real-world, toll-free customer service)
- Create the site with user goals in mind and make sure the overall mission of your organization support these initiatives
- Establish the goals of the site and integrate these goals into tl overall mission of the company
- Ensure that you set the proper customer expectations when it comes to delivery, selection, price, etc.
- Figure out what your online competitive advantages will be
- Determine how you can leverage your brick-and-mortar operations to drive sales and add value

11. Where To Go for Help

Company managers and owners who are looking for help in getting started on the Web would be wise to take a peek at what the competition is already doing. Cospito also advises going to Forreste Research's site to review information on successful strategies to launch Web-based initiatives. Check out the industry publications, I E-commerce Times, Business 2.0 and The Industry Standard, and vendor sites, like Open Market, ICOMS and CyberCash, which are helpful in general terms of understanding the concepts (but are biased toward their own products, he warns).

Brigham advises taking a look at the World Wide Web Consortium a using search engines like goto.com and search.com to search for keywords that relate to e-commerce.

Also, check out the sites that are succeeding in your particular industry or sector, and browse these sites for their particular strong points:

Garden.com — Makes it easy to locate and purchase items, and provides ties in content and related offers creating "transactive content."

CDNOW — Features collaborative filtering to provide product suggestions.

Amazon.com — Wide selection, service, personalization and one-cl ordering.

Dell Computers — Excellent service, custom configurator allows yo to build your own system easily, and you can check the status of yo order.

The Gap — Good use of the interaction of the medium combined w easy transaction functionality.

eToys — Great selection and recommendations.

Cdw.com — Easy navigation, deep product information and offers related accessories that increase sales and assist the user.

Barnes & Noble, Inc., incorporated in 1993, is a bookseller with 908 bookstores and 978 video game and entertainment software stores, as of February 3, 2001. Of the 908 bookstores, 569 operate under the Barnes & Noble Booksellers, Bookstop and Bookstar trade names (32 of which were opened in fiscal 2000), and 339 operate under the B. Dalton Bookseller, Doubleday Book Shops and Scribner's Bookstore trade names. Through its approximate 36% interest in barnesandnoble.com llc (Barnes & Noble.com), the Company sells books on the Internet on America Online's proprietary network, the Yahoo! Inc. directory and Microsoft Network. The Company, through its acquisitions of Babbage's Etc. LLC and Funco, Inc., is a video game and PC entertainment software specialty retailer, operating its video game and entertainment software stores under the Babbage's, Software Etc., GameStop and FuncoLand trade names, a Website (gamestop.com) and Game Informer, a video game magazine.

Many of the Barnes & Noble "super" stores have music departments that range in size from 1,700 to 7,800 square feet. The music departments generally stock over 50,000 titles in classical music, opera, jazz, blues and pop rock, tailored to the tastes of the Company's core customers. Listening stations are available for customers to preview selected compact discs.

Barnes & Noble Stores

Barnes & Noble's typical store offers a comprehensive title base, a cafe, a children's section, a music department, a magazine section and a calendar of ongoing events Events include author appearances and children's activities.

Dalton Stores

During fiscal 2000, B. Dalton (including Doubleday and Scribner's) generated sales of approximately $372.2 million, or 10.3%, of the Company's total bookstore sales, compared with $426 million, or 13.1%, of total bookstore sales during fiscal 1999. Most B. Dalton stores range in size from 2,800 to 6,000 square feet. These stores stock between 15, 000 and 25,000 titles.

B. Dalton employs a market-by-market discount pricing strategy that generally discounts hardcover bestsellers from 15% to 25% off the publishers' suggested retail prices. B. Dalton also offers Readers' Advantage, a membership loyalty program that gives members additional discounts and other benefits. The Company's eight Doubleday and two Scribner's bookstores utilize a more upscale format in shopping malls and place a greater emphasis on hardcover and gift books

Barnes & Noble.com

In 1998, the Company and Bertelsmann AG (Bertelsmann) completed the formation of a limited liability company to operate the online retail bookselling operations of the Company's wholly owned subsidiary, barnesandnoble.com inc. The entity, barnesandnoble.com llc (Barnes & Noble.com), was formed by combining the online bookselling operations of the Company with funds contributed by Bertelsmann. In November 2000, Barnes & Noble.com acquired Fatbrain.com, Inc., an online bookseller.

The Company competes in the super stores business with Borders Group, Inc. (Borders) and Books-a-Million. The Company also faces competition from mass merchandisers such as Wal-Mart and Costco. B. Dalton, Doubleday and Scribner's face direct competition from the Walden division of Borders, as well as regional chains and super stores. In the video game and entertainment software industry, the Company competes with mass merchants and regional chains, including Wal-Mart, Kmart and Target; other video game and PC software specialty stores located in malls and other locations, including Electronics Boutique; toy retail chains, including Toys 'R' Us and KB Toys, and mail-order businesses, catalogs, direct sales by software publishers, online retailers and computer product and consumer electronics superstores, including Best Buy and Circuit City.

Fundamental Data provided by:

Business Description

barnesandnoble.com (NASD)
Sector: Services **Industry:** Retail (Specialty)

barnesandnoble.com inc., incorporated in March 1999, is a holding company whose sole asset is its 27.6% equity interest in barnesandnoble.com llc (B&N.com), and whose sole business is acting as sole manager of B&N.com. B&N.com is focused on the sale of a broad range of knowledge-, information-, education- and entertainment-related products. Since opening its online store in March 1997, B&N.com has attracted more than 7.9 million customers in 228 countries. In addition to books, the B&N.com Website, www.bn.com, offers music, DVD/ video, magazines and related products. B&N.com's online bookstore includes an extensive in-stock selection of in-print book titles, supplemented by more than 20 million listings from its nationwide network of out-of-print, rare and used book dealers. It also offers a comprehensive online selection of college textbooks, in addition to eBooks.

Co-marketing agreements with Web portals and content sites have extended B&N.com's brand and increased consumer exposure to its site. B&N.com has also established a network of remote storefronts across the Internet by creating direct links with more than 475,000 affiliate Websites.

In April 2001, B&N.com, in partnership with MightyWords, an Internet seller and distributor of unique digital content, expanded its selection of digital content by offering for sale thousands of articles that can be purchased, downloaded and printed instantly. The new Barnes & Noble.com Articles for Download store, at www.bn.com, features eMatter, a term that describes mid-length, need-to-have, need-to-know business, computing, health and professional information. All of the content offered can be downloaded instantly through MightyWords' secure digital content server to Windows, Macintosh, Unix (including Linux and Solaris) users, then printed to the customer's local printer.

On November 16, 2000, the Company acquired Fatbrain. Fatbrain operations have been merged into B&N.com. Fatbrain is a Web-based information management service provider that helps organizations easily and cost-effectively manage and distribute publishable information in digital or hard copy form to employees, customers or partners.

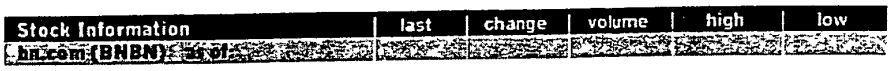
Fatbrain serves nearly 350 of the Fortune 1000 companies and similarly sized organizations with online custom resource centers or bookstores. Many of these organizations have more than one Fatbrain co-branded site, serving multiple internal or external constituencies. Individual co-branded Fatbrain sites total more than 500, and it is estimated that approximately 3.5 million customer employees have access to the sites. Additional customers of some of the companies sponsoring the co-branded sites can obtain published materials through the sites The bulk of Fatbrain's revenue comes from

online sales through these corporate-sponsored sites, as well as sales of professional and technical books and training materials directly from the www.fatbrain.com Website.

Fatbrain's subsidiary, MightyWords, was formed in March 2000 to address the mass-market opportunities created by Fatbrain's eMatter digital publishing initiative. On June 5, 2000, MightyWords made an investment by B&N.com, and became operated as an independent, privately held company. Following the merger of B&N com and Fatbrain, B&N.com owns approximately 53.4% of MightyWords. However, control of MightyWords has been deemed temporary by the management of B&N.com, as MightyWords plans to seek additional financing in the near future that will effectively decrease the percentage ownership by B&N.com below 50%.

With respect to the sale of books, which constitutes B&N.com's largest source of revenue, B&N.com competes with numerous booksellers, including other Internet-based companies such as Amazon.com and traditional book retailers. With respect to the sale of music and videos, B&N.com competes with numerous merchants, including other Internet-based companies such as Amazon.com, Cdnow and traditional retailers.

Fundamental Data provided by: market guide



Welcome

Welcome to the Investor Relations web site of Barnes & Noble.com, which contains information on the company and its activities and alliances. Barnes & Noble.com is a publicly traded company listed on the Nasdaq exchange under the trading symbol BNBN

Barnes & Noble.com
Second Quarter Earnings Conference Call

Barnes & Noble.com will release its second-quarter 2001 financial results on Thursday, July 26th, after the market closes, followed by a conference call with senior management. The live webcast of the conference call will begin at 5:00 p.m. eastern on Thursday, July 26, with the replay beginning shortly after the completion of the call. Click on either of the links below to access the webcast.

Financial Literature Requests

To receive written financial information on the company, please visit the Information Requests section of this site, or call our fulfillment house at the toll-free number 877-275-2626. Requests are normally mailed within 24 hours

Investor Relations Contact Information

You can reach Barnes & Noble.com's Investor Relations department via email at investorrelations@bn.com, or you can write to us at:

Investor Relations Department
Barnes & Noble.com
76 Ninth Avenue
New York, NY 10011

Company Profile

Barnes & Noble.com is an Internet commerce company offering a comprehensive range of books and related information products. With more than 6 million unique visitors per month to its web site, www.bn.com, the company has the largest audience reach of any brick-and-mortar company with an Internet presence. It offers the largest in-stock selection of in-print book titles, supplemented by more than 12 million listings from its nationwide network of out-of-print, rare, and used book dealers Its college textbook store offers a vast selection of new and

used textbooks, and its recently introduced eBook Store has established the company as a leader in the delivery of digital content and intellectual property.

Barnes & Noble.com's excellence in e-commerce extends to the music business, where it was cited by Forbes.com as the No. 1 music site on the Web, for being "best-of-class for anyone who wants to learn about the music they're buying." The company's product ranges now include a full complement of information products, including DVD, video, software, and PC games.

The company's focus on information products is manifest in its recently launched Barnes & Noble University, a distance learning forum offering free classes. With a wide range of courses -- including Introduction to Programming; Introduction to XML; The Night Sky: An Introduction to Astronomy; and Walking Through Shakespeare -- Barnes & Noble University has quickly established itself as a leading Internet hub for learning and community.

Company Information

Business Strategy

Barnes & Noble.com's objective is to build a profitable e-commerce business by focusing on information, entertainment, and education products and services that can be delivered either physically or digitally. We seek to become the leading online retailer for consumers who want to purchase books and complementary information-based products. Central to achieving this objective, Barnes & Noble.com's operating strategy is focused on rapidly extending its brand and increasing its customer base by:

- Continually enhancing the user experience of our online stores
- Offering a large product selection and fast delivery
- Continuing to expand the product offering within our online stores
- Pursuing advertising as well as cross-marketing/promotional activities with Barnes & Noble and Bertelsmann properties
- Leveraging the strong Barnes & Noble brand name, retail network, and expertise as well as Bertelsmann's direct marketing strength and content assets
- Strengthening and expanding our strategic alliances with third-party web sites and content providers
- Pursuing acquisitions, joint ventures, and other similar strategic investments and relationships with complementary businesses and companies
- Continuing to increase the number of web sites in our Affiliate Network
- Continuing to invest in technology to further develop state-of-the-art products, services, and logistics platforms