A Primer on Developing
An
E-Business Strategy

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Chapter 1
Doing Business on the Internet

E-Business versus E-commerce is there a difference?

The term E-business was initially crafted in a thematic campaign by IBM in 1997 and subsequently defined as "a secure, flexible, and integrated approach to delivering differentiated business value by combining the systems and processes that run core business operations with the simplicity and reach made possible by Internet technology" (http://www.ibm.com). Prior to the offering of this definition, the term E-business and E-commerce were often referred to interchangeably. The offering of this formal definition marked the coming of age of the adoption of the Internet and its technology to go beyond the function of E-commerce and encompass other functionalities such as e-marketing, e-franchising, e-mailing and many more. In a nutshell, E-business is the function of deploying technology to maximize customer value while E-commerce is the function of creating exchange (i.e., buying and selling) over digital media (Kalakota and Robinson 1999).

The Basics Revisited

As recognized above, the new paradigm of E-business that is being currently defined is simply technology driven. This changes everything. Kalakota and Robinson map this dramatic paradigm shift by presenting the following as the rules governing e-business:

Rule	
Rule 1	Technology in no longer an afterthought in formulating business strategy, but the actual cause and driver.
Rule 2	The ability to streamline the structure, influence, and control of the flow of information is dramatically more powerful and cost-effective than moving and manufacturing physical products
Rule 3	Inability to overthrow the dominant, outdated business design often leads to business failure
Rule 4	The goal of new business designs is to create flexible outsourcing alliances between companies that not only off-load costs, but also make customers ecstatic
Rule 5	E-commerce is enabling companies to listen to their customers and become either "the cheapest," "the most familiar," or "the best."
Rule 6	Don't use technology just to create the product. Use technology to innovate, entertain, and enhance the entire experience surrounding the product, from selection, and ordering to receiving and service.
Rule 7	The business design of the future increasingly uses reconfigurable e-business community models to best meet customer's needs
Rule 8	The tough task for management is to align business strategies, processes, and applications fast, right, and all at once. Strong leadership is imperative.

*Drawn from: "e-business: Roadmap for success," Kalakota and Robinson

The WWW and the Changes in the Environment of Business

The WWW changes the traditional landscape of the business environment from that of being a Market*place* to one that is more of a Market*space*. This marketspace is an information and communication-based electronic exchange environment occupied by sophisticated computer and telecommunication technologies and digitized offerings (Berkowitz 2000). The impact of this digitization is evident in the following changes:

1. The content of transaction is different – information about a product often replaces the product itself
2. The context of transaction is different – an electronic screen replaces the face-to-face transaction
3. The enabling infrastructure of transactions is different – computers ad communications infrastructure may replace typical physical resources especially if the offering lends itself to a digitized format.

While the above-mentioned, changes the business dynamic fundamentally, much of the excitement surrounding the WWW emerges from the belief that the WWW and the resulting marketspace possess a far greater potential for value creation. In marketspace the constraints of time, place, and geographic boundaries are completely eliminated. The entrepreneur now has the ability to provide information to customers on demand, while possessing the ability to transact business at all times with customers that may be geographically scattered. Examples of this flexibility are evident in the experience of merchants such as: Amazon.com, that reports greater than twenty percent of its sales to customers outside the United States and REI (an outdoor recreational equipment retailer) which reports thirty five percent of its sales being placed between the hours of 10P.M. and 7 A.M.

Some E-Business Statistics

Commerce on the Internet, which was virtually nonexistent in 1996, is now reported to be in excess of a $200 Billion industry (Berkowitz 2000). The following statistics represent some of the metrics of the emergent e-economy:

Characteristics	*1999-2000 Projected*	*% Change from Year Earlier*
Number of U.S. Web users	102 Million	48%
Global Web users	240 Million	67%
Total online Ad-spending	$4.6 Billion	142%
Small Businesses Selling Online	1.6 Million	78%
Worldwide Retail E-commerce Revenue	$33.5 Billion	112%

* Data adapted from the Industry Standard (May 1, 2000 issue)

While the metrics of the e-economy validate that this new paradigm is here to stay and cannot be dismissed as a fad, one must remember that these are changing just as quickly as they can be collected. The above mentioned metrics are presented to furnish readers

with a sense for the outstanding growth being enjoyed by the new e-economy while instilling a sense of urgency for deploying the same to enhance their own competitiveness.

Chapter 2
Is E-business For Me?

The tenor of the discussion surrounding the above-mentioned question "Is E-commerce for me?" has changed in the brief period since the emergence of this paradigm. The question is no longer "Is it for me?" but rather is "How can I harness the power of E-business to deliver exceptional value for my customers?"

A starting point in developing an e-strategy may lie in analyzing an industries value chains. Electronic commerce can play a role in reducing costs, improving product quality, reaching new customers or suppliers, and creating new ways of selling existing products. The value chain concept is a useful way to think about business strategy. When firms are considering electronic commerce, the value chain can be a convenient means of being able to organize the examination of the business processes within a business unit and in other parts of the product life cycle. Using the value chain reinforces the idea that electronic commerce should be a business solution, not a technology implemented for its own sake.

Some Generic Reasons for Going Online:

1. *Expand market reach*: This is one of the major advantages of doing business online. A little company now has the ability to reach markets far beyond its traditional vicinity while also gaining access to markets beyond its current customer base.

2. *Visibility*: The Internet gives the small and medium sized company a chance to level the playing field to some extent. On the Internet each company is reduced to the common size of the customer's browser window. While creating the original web presence may not be inexpensive, the cost of subsequent maintenance is minimal. The Internet provides cost advantages for businesses in being able to update information, post features, and simply maintain a site that is perennially current at a minimal cost and time lag. These features combine to generate a greater presence within the present target market while gaining a greater component of their mind share.

3. *Enhance responsiveness*: One of the greatest benefits of doing business online rests in its ability to promote relationship building with its customers and partners. The Internet is unmatched in its ability to increase responsiveness. Examples of this responsiveness are clearly visible in companies such as Dell, UPS, and FedEx that now allow both partners and consumers to check various facets of their transactions directly by logging onto their Web sites. This interconnectedness comes at a lower cost and on-demand thus, providing a more efficient method to respond to customer needs/wants.

4.   *New services*: introducing new services in traditional markets is difficult and expensive. The Internet provides the option of introducing new services for customers, partners, and employees at a minimal incremental cost.

5.   *Strengthening business relationships*: the ability to enhance business-to-business communications has a huge potential. In the past companies were using (EDI electronic data interchange to streamline business processes and enhance communications. Through EDI suppliers, manufacturers, distributors, and retailers were able to share information and enhance the flow of information and goods through the supply chain. While the concept of EDI was good, implementation was lagged because the technology cost a considerable amount and hence was affordable only for the large organizations that could afford the accompanying infrastructure cost.

        The WWW changed all this. Now the benefits of shared information can be enjoyed by organizations of all sizes big or small at a fraction of the cost. Access to real-time data enhances efficiency, which improves productivity, and profitability. Further, the nature and content of information that can be shared has broadened in scope. The multi-media nature and real time capabilities of the Internet are fostering an environment that is conducive for relationship building.

6.   *Cost Reduction*: this feature has been realized and well understood by the organizations of the 21st century. The blossoming and adoption of the Internet has seen businesses realize enormous cost savings by moving a myriad of services online. From customer service centers, to online tracking of packages, to online brokerages, the list is endless. The ability to digitize offerings and provide products/services on demand has lead business to realize two allied goals of enhanced service at a reduced cost of product, support, and service

Potential benefits associated with E-business

- *Global accessibility and sales reach*: The online community is on around the world 24 hours a day seven days a week. Businesses now have the opportunity to expand their customer base, and in some instances even their product line.

- *Closer relationships*: The Internet is structured to facilitate two-way communications that is ideal for bridging the spatial gap between an organization and its customers. The open standards inherently associated with the Internet translate into interoperability between companies and their web sites.

- *Reduced costs*: As mentioned in the discussion earlier, businesses have recognized that this new technology can be effectively deployed for the dual

purpose of enhancing customer service while lowering costs. Numerous examples of deploying the Web for providing services such as customer service, customer information centers, software download centers, have become mainstream and are here to stay.

- *Tailor made offers and customer loyalty*: today's software developments give businesses the ability to customize the entire web site for each single user with no incremental costs. Mass-customizations allow the marketer the ability to create web pages, products, and services that suit the requirements of the user. A customized web encounter does not end with a preferred page layout, but on the other hand extends to a pre-selection of goods and services, recommendations, and reviews of products to facilitate the transaction.

Potential concerns associated with E-business

- *Channel conflict*: the WWW is a brand new medium that offers businesses completely new opportunities. The traditional business channels fear that disintermediation will compromise their role and in some instances their very existence. This debate was observed most recently in the auto industry where the very existence of the traditional channel is being questioned.

- *Competition*: the WWW intensifies the nature of the competition and makes it global in nature. The advent of shopping bots has intensified competition and forces businesses to compete on the basis of creating a sustainable competitive advantage. This advantage typically manifests in the form of providing better value for the customer. Examples of such strategies are available in the efforts of businesses to be the cheapest (buy.com), the most familiar (yahoo.com), or the best.

- *Customer loyalty*: one of the manifestations of using the technology of the WWW has been the ease with which consumers can navigate the WWW in order to satisfy their needs and wants. Besides, the internet reduces switching cost to the point where consumers do not have an inherent investment in the current relationship. In instances where businesses do not create a personal shopping experience, this problem is further amplified.

- *Copyright and Legal Environment*: the copyright environment of the WWW can best be described in one word "open." Any information that has been published on the Internet is susceptible to being replicated. In this instance, the open environment of the WWW provides minimal protection.

  Currently, there is no legal framework for the WWW that is binding on a global scale. The rules governing the Internet are being determined and hence the rights of a Web entrepreneur are being defined with the development of the Internet itself.

- *Security/Privacy*: these are the defining issues facing further proliferation of the WWW. Security of financial transactions cannot be completely guaranteed and numerous options in encryption technologies are beginning to address this concern.

  The potential abuses of data collected on the WWW have been well documented in the literature. While there is great divergence of thinking in how and what data must be protected, the only consensus seems to lie in finding ways to protect data integrity while educating the various stakeholders. The online industry has lobbied for a self-regulated environment and there are multiple bills that are pending legislative action at the federal level. The one certainty that prevails today is that consumers need to be informed of the data collection activities of a firm and the use/trading of such data must be by consent of the consumer.

Brick and Mortar versus Click and Mortar

Traditional retailing (bricks and mortar) itself has been witness to numerous realignments; the dawning of the Internet has forced a fundamental reexamination of the value notion as viewed from the consumer's perspective. Retailing itself has been dynamic in its format. From a historical traveling caravan, to a mail order behemoth created by the ingenuity of Sears, Roebuck & Co., retailing evolved once again moving to suburban malls from their traditional downtown locations, to change once again to the mass-merchandise discount chains in the 1970's (Wal Mart, K Mart), to a more recent (1980's, 1990's) format of mail order, catalogue, and television based shopping experiences (QVC, HSN). These changes were accelerated by the environmental trends of rise in purchasing power but accompanying time poverty.

In mapping this evolution of retailing three distinct influences emerge:
> (1) Declining costs of tapping into a larger market,
>
> (2) Providing consumers lower prices while moving greater volumes of the product, and
>
> (3) Providing consumers with a more convenient shopping experience by offering a width of product assortment at a single location.

The Internet has led to a retailing revolution because it is a medium that combines all of the fore-mentioned influences in a more elaborate fashion. Time and distance have been bridged like never before. The array of products and services that is being offered is enormous, the market size has exploded and continues to grow, and most importantly all this is offered in the most convenient location i.e., where and when the consumer demands the same 24/7/365 (24hrs a day/7 days a week/365 all year around).

While nobody expects the traditional retailer to disappear, one must expect to see the greater component of growth in retail sales (both consumer and business-to-business) shift to direct electronic sales channels in the next decade. It is time for the traditional

brick and mortar entrepreneur to examine how the Internet changes the traditional process of exchange to become more efficient and in the process redefine the entire concept of value. The literature has recognized that the Web works for consumers because it provides them six C's (Berkowitz 2000):

1. **Convenience**: Online buying is convenient. The consumer has access to an endless array of product and services all from the convenience of home.

2. **Costs**: Cost comparisons are easily done on the WWW. This process had been further improved with the deployment of programs called ***bots***. These are electronic shopping agents or robots that comb Web sites, to compare prices and product service features. Factor in search costs and the consumer now has the ability to minimize both the search cost and monetary cost of the product without ever leaving home.

3. **Choice**: As mentioned above the array of products and services that are offered on the WWW is enormous and growing each day.

4. **Customization**: This has been a major coup for online marketers. Visit a company such as (http://www.bluefly.com) and you now have the ability to customize your shopping experience. Merchants now allow consumers to define their entire shopping experience. Bluefly a clothes retailer on the WWW allows visitors to customize an individualized catalogue, which is updated each time a customer log on. Customers specify product categories of interest and hence are exposed to only those products that interest them.

5. **Interactive Communication**: with the growing diffusion of a wider bandwidth this promise of the Web is finally being realized. It is currently possible to engage in an electronic dialogue with a Web merchant and as bandwidth is enhanced the capabilities will be enhanced to include audio and video formats. Some merchants such as Landsend.com have already incorporated these features into their Web strategy.

6. **Control**: The Web empowers individuals by giving them access to information. This information translates into the consumer gaining control in all facets of the exchange. The automobile industry has just begun experiencing the implications of this realignment. It is now reported that in excess of fifty percent of all auto purchases were preceded by information searches on the WWW.

What does this mean to my business and me?

The WWW has radically changed the notion of value as perceived by consumers. Businesses have realized that today's consumer requires convenience in the shopping process, they require personalization, want competitive prices, and expect speed in

service. Simply put, the bar has been raised and only those enterprises that can operate to provide the above mentioned will survive and subsequently thrive.   Each business needs to evaluate how it can deploy technology in order to tip the value equation in its favor. By realigning the value equation in its favor businesses will be able to drive the slower moving competition back to the drawing boards.

Chapter 3
Preparing the Online Business

The significant issue faced by managers today is one of transformation: *"How do I transform the brick and mortar company of yesterday to the click and mortar economy of today to be competitive in the inevitable digital economy of tomorrow?"* The following chapter draws heavily from Kalakota and Robinson's (1999) discussion on *"Developing E-Business Design."*

A realization that has come about in today's hyperactive e-economy is that traditional planning horizons tend to be too long for the very fluid state of e-business. Continuous planning with feedback has evolved as the strategy of choice for the fluid and volatile e-environment. This method of continuous planning with feedback is structured around four steps:

1. *Knowledge building and capability evaluation*: Identify and acquire a comprehensive understanding/vision of customer needs. Develop a clear understanding of what capabilities you need in order to address the identified customer needs. Communicate this understanding of customer needs to all employees of the organization.

2. *Develop a comprehensive e-business design*: this entails developing the competency that lays the foundations to address the customer needs. If the customer wants self-service, then the business design must provide and facilitate the same.

3. *E-business blueprint*: is what provides the vital link between the e-business design, the business goals, and the technology foundation. If a self-service business model is to be implemented, then the e-business blueprint helps determine the needed application framework. It maps the projects and performance milestones that must be achieved.

4. *Application development and deployment*: translate the key milestones and projects into integrated applications. It provides for feedback loops that:

   (a) At the micro level lets employees know how their individual job performance impacts corporate objectives, and
   (b) At the macro level furnishes feedback on the overall corporate objectives. It facilitates an understanding about what is working and what is not so that refinements/remedial actions may be undertaken.

Developing an e-business Plan
While there is no singular approach to developing an e-business plan, the following provide a few guidelines. Making e-business a reality involves two key elements: the

business strategy formulation and the application framework. The business strategy formulation component helps determine the facets of business that lead to customer value creation while e-business strategy formulation is comprised of the following:

- *Knowledge Building:* helps the organization understand what the customer is looking for and the overall industry outlook. It facilitates an understanding of customer needs and what they value. The following table identifies some of the key questions that will need to be addressed prior to a foray into e-business:

Understanding the customer	• Who are my customers? • How are my customers' priorities shifting? • Which customers belong to my target market?
Customer value and relationship trends	• How can I add value for the customer? • What makes me my customers' compelling choice? • How does my product reach customers?
Technology trends	• Is there a good understanding of the environment & industry trends? • Are the implications of the technology trends factored in?
Competition	• Who are the direct competitors? What are their strengths/weaknesses?

*Drawn from Kalakota and Robinson (1999)

- *Capability Evaluation:* is an organizational audit of competencies. It provides the inputs for competencies as they exist and helps develop an understanding of gaps in competencies. It helps organizations develop an understanding of the inventory skills as they serve current customer needs while helping plan for changing customer priorities. The following table sheds some light on some of the key areas that may be evaluated as part of a competency audit:

Customer Interface	Production & Fulfillment	Human resource	Technology	Infrastructure
Sales	Manufacturing	Culture	Resource planning systems	Financial systems
E-commerce	Distribution	Skill Set	Networks	Research & Development
Marketing	Supply chain	Training	Web sites & Intranets	Human resource
Customer Service	Production scheduling	Knowledge management	Security	
Channels of Distribution	Inventory management	Executive commitment	IT skill set	

* Drawn from Kalakota and Robinson (1999)

- *E-business design:* asks what value proposition a business must provide to take advantage of digital capabilities. How is this value going to be packaged into products, services, or experiences?

The e-business blueprint, or application framework strategy, helps take the "what to do" and convert it into the "how to" of value creation. There has been a spate of innovation in this area. Businesses that have been able to harness the power of the Internet by translating its competencies into value for its customer now enjoy a distinct competitive advantage. The table below identifies some of the e-business designs that have been successful and widely discussed in the literature:

- ***Pioneer:*** as the term indicates these businesses are first off the starting blocks and their success stems from using the Internet to satisfy customer needs in a unique fashion. Besides being the first in the marketspace, pioneers stay ahead of the competition by innovating continuously and adding value to the exchange. Amazon.com is an example of a company that has successfully deployed this strategy.

- ***Disintermediation***: this strategy often entails reconfiguration of the supply chain. It may entail directly accessing the customer or realigning the marketing channel. Cisco and Dell are examples of companies that have used the Internet to rethink the marketing channel and gain efficiencies in the process.

- ***Infomediary***: is a strategy where customer search costs are reduced by using the Internet. This has been very successful in instances where a customer is in the market for a homogeneous shopping product (example: automobiles). Auto-By-Tel is an example of a company that has been successful in using this strategy (Kalakota and Robinson 1999).

- ***Transaction Intermediary***: entails deploying the Internet to facilitate the purchase process. The transactional model facilitates the complete transaction from searching to after sales follow-up. Companies that have used this strategy include: e-bay and Microsoft (Kalakota and Robinson 1999).

- ***Self-service innovator***: entails using the Internet to provide services that an organizations' customers can access directly. United Parcel Service (UPS) and Federal Express are two examples of companies that have reduced manpower costs by creating Web sites that customers can query for an array of services/information (Kalakota and Robinson 1999).

- ***Channel mastery:*** Deploying the Internet as a sales and service channel. This strategy supplements, the existing channel structure. Example: Charles Schwab (Kalakota and Robinson 1999).

Chapter 4
The Basics of E-Business Design

There has been a temptation for Web merchants to convert their current physical catalogue and transform the same into an electronic one to be hosted on the WWW. This would be a mistake. Today the Web environment has evolved to the point where in a website may be deemed as a virtual salesperson. The challenge lies in developing an "intelligent" website.

An intelligent website is one that enhances the communication activities of salespersons without damaging customer relationships. In other words, it is a website that communicates in a human fashion. While a computer cannot replace a salesperson an intelligent websites can function just as competently, and in some cases even more efficiently than a salesperson without losing the "human touch."

This is achieved through *personalization*. When people become Internet customers they do not change in essence. They go through the same sales cycle before purchasing a product or service. It often starts with a need (a purchasing motivation) then moves through the same cycle as a traditional purchase. Therefore the same marketing principles apply to an Internet "salesperson". The computer has to understand the customers needs, individual background experiences and then provide relevant and persuasive communication. To do this an intelligent website must be able to use *both implicit and explicit* information gathering techniques. **Implicit personalization** is done without directly involving the customer. For example, information is gathered about the surfers' web activities such as the websites they visit or time spent on certain websites. This sort of information is gathered by using "cookies," small text files stored on a user's browser that track their movements. The disadvantage is obvious: it is not a hundred percent accurate and can generate false signals when a user's web movements do not in reality match his demographic category.

Explicit personalization is done with the user's assistance. Users can personalize a website to meet their particular needs, or an intelligent website can do so by using information given to it by the user.

With the help of personalization websites can actually become virtual salespersons. They now possess the ability to: do needs analysis, calculations, recommend, qualify sales leads (weed out a genuine buyer form a random surfer) and actually create a web-relationship. This allows the salespeople to concentrate on higher order tasks such as closing deals. From the organizations' perspective this is extremely efficient as it saves the company money and enhances revenue.

Personalizing A Web Site

The difference between a successful site and one that is often unsuccessful is often reduced to the personalization process. Personalizing a website makes the customer aware that the company/business cares about them and wants to give them the best possible service. Personalization is done two ways: through *Collaborative Filtering Techniques and Rule Based Filtering Technology*.

Collaborative Filtering Techniques use a number of factors to build customer profiles. It examines customers purchasing habits (what was bought, how often was it purchased, what other items were purchased) along with an examination of the customers browsing habits. This data is used along with the information provided by the customer himself/herself about their personal preferences. All three inputs are used to create a detailed profile, which lead to dynamic recommendations from web merchants.

Rule Based Filtering Technology are based on an "if /then" logic. The website asks specific questions and based on the answers, it provides content/information. For example, if a surfer requests information on suspense/thrillers, only then will the web site provide information about the latest suspense books. A rules based website can often miss an opportunity to cross sell because no specific input was furnished, in effect ignoring an opportunity to enhance the revenue stream.

Some Basic Rules in Developing Web Sites

Although personalization is important to keep a customer happy, there are a few basic elements that every website must incorporate:

Ease of use: today's Internet users are often busy professionals who are pressed for time and turn to the web for service and quality. A website that is too "sticky," one that inundates the user with useless information is one that they will not use again. A good intelligent website will get the job done quickly and efficiently. Site navigation should be easy and must incorporate past customer interactions to make future visits productive. One-way to do this is to offer textual conversations with customer service right on the Internet.

The Relationship: one of the main problems with e-commerce is that customers tend to feel that they are dealing with just machines and not with a human organization. In order to address this problem web sites must incorporate live interaction via the website, with pictures and background details of the sales representative. In addition to this, every time an order is placed web merchants must deploy a strategy in which a customer is constantly informed of order/shipping status.

Trust: one of the chief concerns customers have in transacting business on the WWW lies in their lack of confidence in Web transactions. Along with this is being able to trust the e-company itself. Both issues must be addressed if an e-company is to be successful. There are two ways to do this: one is to assure customers of transaction

security by putting a human face (a sales representative) on the website. The human face can add a human touch to the site and help customers overcome the feeling that they are interacting with a nameless machine. The other option is to post data that illustrates site integrity.

After sales follow through: just as in a traditional sale, an e-sale is not complete if the customer is not completely satisfied with the exchange. Satisfaction through the consumption process can only be ensured if an e-sale is followed by a rigorous post sale routine. A good example of the above mentioned is found in following Amazon.com's transaction routine: It begins with a confirmation as soon as the sale is made and this is typically followed by shipping details and a tracking number that allows the customer to track the shipping/delivery process. All this empowers the consumer with all critical data and essentially removes any guesswork. Hence, no big surprise in Amazon.com being successful, while many others languish and wonder why? A site must be efficient, trustworthy and possess a humane interface.

Internet customer service: customer service is always important and a good business website has good customer service. For example, it should allow customers access to their account, track their orders and allow them to talk to live sales representative if they desire to do so. Allowing customers' control over their orders is expected and can make a huge difference.

Most website designers think of a web site's overall appearance and then about its functionality. Although the aesthetic element is important, for a business website it is functionality that should be given priority. For a business site the goal should be to create functionality that integrates into the customers day-to-day life. A major marketing objective for web sites should be to create habitual behavior with website visitors. The website should be made convenient, easy to use, and an integral part of a customer's life that they come back to day-after-day.

To do this web sites should be built with the *customer* in mind. The aim should be to make their lives easier and thus create "web loyalty," much like brand loyalty. A simple question was put forward to customers by Weirton (a steel company) as it was doing research prior to setting up a website. The answer from customers was simple: they wanted information, not only when they wanted it, but in a format that they could use, a format that that they were used to. This is where personalization ties in. Information should be published electronically in a format that is most comfortable for the *buyer*, not the seller. To do this personalization of web sites must be made possible. However, there are a few rules of thumb that must be kept in mind when seeking information in order to personalize a website:

- ♦ Don't ask the same question over and over again. This is bound to irritate the surfer.
- ♦ Don't ask for all the information at the same time. People are only willing divulge information after a certain amount of trust has been built and this holds true for a website too.

- Keep questions short and simple and ask only for information that is vital.
- Avoid asking questions that individually identify people. On the Internet trust and security play an important role due to the lack of human faces. Customers may be scared off by a website that requires too much information.
- Every individual has an "automated tolerance point," a point the customer reaches when dealing with an inanimate computer is not convenient anymore, but is irksome. To avoid this a good business site should give the customer the option to choose between automation and a human.

Personalization is just one of the five Internet "P's". The other four are Products, Promotion, Presentation and Processes. When building a website, businesses must be aware that some products are suitable for the Internet and some are just not. The most suitable product should be put first on the website. Web sites also need to be promoted through advertising. Presentation plays an important role. The website has to have easy to use navigation and the look and feel should keep with the corporation standards.

The website itself is of major importance. A Company's website can be considered its online business card. Therefore every aspect of the web page is important. The most important thing on the web page is content. Customers come to the Internet seeking information, so a website should do just that – provide information. Fancy graphics are impressive, but for corporate web site content is king. Pictures and illustrations can be worth a thousand words, but they must add value to the site and be quick to download as current research indicates that the average wait time for pages has declined to 8 seconds. A site that takes long to download will not be able to retain customers.

Online text itself should be well thought out. Many corporations make the mistake of simply copying their existing paper documents to the web server. This is a mistake. On the web there is no pre-defined sequence of reading. One does not move from page to page, but rather moves around randomly. So each web page should be complete in itself. Adding links within and across documents further simplifies navigation. However, as a rule of thumb more than ten links should not be used in one single page (two or three links to other pages is the norm).

Too much content can also be a problem. Unnecessary information is distracting and will not retain visitors. Besides, it compromises download time. Access to fast Internet connections is still limited and allowances for the same must be made. Accommodations must also be made for older computers with slower modems as well as for people with reading disabilities. Content should be constantly updated as the web is changing and growing every minute. On any given day, the web site should be able to provide real-time up-to-date information.

Feedback: every web site should also offer the possibility for customer feedback. This provides the customer the ability to get in touch with the company and reduces the feeling of dealing with an inanimate machine. Some of the most successful e-businesses have used this aspect to leap ahead of their competition (example Amazon.com).

Feedback can be automatically directed to the appropriate department and can help the company reduce the size of its customer care center.

FAQ's: just as feedback can reduce the size of a company's customer care center, FAQ's can do the same. Many companies receive the same questions over and over again. A simple FAQ page that answers the most often asked questions would reduce the workload of the response team plus save money and time.

Color Schema: it is always a good idea to choose two or three colors (without making it monotone) and stick to these colors throughout the site. Research indicates that different colors have different effects on the viewer. Colors should be chosen depending on the effect the corporation wishes to have and must be chosen so as to support the overall image of the company.

File size: this becomes relevant from two perspectives. Loading time in the instance of a consumer accessing the Web site and also if a visitor wishes to download information from the web site. Graphical images, audio, and video content increase file sizes dramatically and can increase upload/download time significantly. A careful analysis of the value addition by incorporating facets that increase file size is a must. Recognize that slow Internet connections are still the norm. Therefore, large image files/graphics and audio/video files must only be used in instances of significant value addition. Also, provide consumers with an alternative text option for people who wish to skip the graphics and go straight to the information.

There are a few elements that are essential for creating a customer friendly web site. However, it is still possible to create a great web site while keeping within these parameters. It is not just fancy graphics and colors that make a great web site. *It is what the web site offers customers in terms of speed, functionality and design that makes truly successful.*

Chapter 5
Marketing Strategies on the WWW

Virtual Societies

Marketing has been witness to a growing degree of finesse in being able to reach its target audience. This movement to identify and subsequently target a specific group of the population began with the understanding of the demographic profile of the target group to be reached. This was subsequently enhanced by the addition of other characteristics such as geographic location of audience members, their psychographic profile, and then on the basis of the technological developments (Example: scanners) consumer product usage data. This trend of moving from a mass audience to a well identified/targeted audience is furthered by the WWW. The WWW with its inherent structure of possessing virtual communities adds another powerful dimension in a marketer's quest to reach well defined/identified prospects.

Virtual communities allow people with common interests to meet, communicate, and share ideas with one another through the medium of the WWW. Through these activities, participants develop bonds with other members of the community and the community as a whole. This feature of the Internet has emerged as one of its most distinctive and from the marketers' perspective perhaps the most important/powerful competency.

Examples of Virtual Communities

Nature of affinity	*Community*	*Members*
Professional	Physicians Online	Doctors
	Agriculture.com	Farmers
Personal Interest	Expedia	Travelers
	Motley Fool	Investors
Demographic	Ivillage	Women
	Babyplace.com	New Parents

Adapted from: (Haylock & Muscarella 1999)

What does the virtual society imply from a strategic perspective?

The answer lies in the marketing strategy deployed. In mass marketing, companies promote their image and attempt to generate awareness followed by a constant strategy of reminder advertising to be a part of the target markets evoked set. In direct marketing, the focus changes to providing target audience members tailor made information that is both informative and relevant. When done correctly, this information flow is preceded by extensive research to ensure both information suitability and more importantly interest level of the potential member of the target audience. This, in effect, creates a more informed buyer, and from the marketers perspective develops a relationship that leads to repeat purchases.

In collaborative marketing, companies support prospective customers in understanding and evaluating alternatives, in order to facilitate their purchase of optimal products. Their goal is to inform, educate, and develop trust, and eventually a relationship that yields repeat purchases and long term loyalty. The WWW in general, and virtual communities in particular, support direct and collaborative marketing strategies.

Mapping an organizations target group into Internet communities becomes a strategic option in an effort to undertake collaborative marketing. Building these communities into an organizations Website will enhance the one-to-one marketing communications while facilitating one-to-many communication within the group. Open communications, a better understanding of the community/member needs in turn provides valuable market information (marketing research) to customize products.

Need for Localization

The Internet has indeed helped create a global village. Yet, as more people connect to the Internet from all over the world, the reality remains; they speak different languages and have different expectations. In order to meet these expectations it makes it mandatory for companies to develop country or region specific websites. Websites should also have online translations and should be aware of different business customs.

Marketers are often tempted to use their existing business models and values and introduce them to an entirely different environment. This is a mistake. The maxim: "think globally act locally" has never been truer. The Internet does not insulate an organization form the demands of local cultures, expectations, and social mores. When localizing Internet applications, it is not enough to just translate texts and adjust currencies. In order to be successful in a local market it is necessary to know how people react to the site's offerings and more importantly their customs and how *they* do business.

Promoting your e-business

The domain name: The initial step in defining a Web presence is the registration of a relevant domain name. While the rules of picking a good domain name are similar to those of picking a good brand name in the physical world, this task has been made much more complicated by cyber squatters. Cyber squatters have realized that there is money to be made by registering marketable domain names. This has led to registrations by individuals who have no intention of using the domain name but rather to resell the same at huge premiums on the resale market. As mentioned earlier the rules of picking good domain names are identical to those of picking good brand names. With the global nature of the WWW special attention needs to be paid to the international aspects of domain names such as translations, connotations, and social acceptance.

Announcing the website: The best designed website will be useless if the target audience cannot find it or does not visit the same. An increasingly difficult task for a Web business is to be able to gain visibility and traffic. A basic strategy to enhance the

potential of exposure and visibility are: registrations with Web search engines and online directories. Addition of meta-tags including keywords associated with the contents of the Web page enhance the chances of a web page being identified by a search engine. There are constantly evolving strategies associated with finding a higher order display position with the most popular search engines. Another strategy in enhancing visibility lies in developing alliances with other sites that share a similar target audience and exchanging banner advertising and links. Further, the battle to establish visibilty has now spilled into the domain of the traditional media. At a minimum the domain name must appear in all organizational advertising campaigns, press releases, corporate literature, trade shows, letterheads, and business cards.

Affiliate Networks: Affiliate networks are a special form of networking. It is customizing your online products not to the ultimate end customer but to *resellers*. This not only creates a broad area of coverage but also helps in brand awareness. The more websites you are able to cultivate for your network the more people will become aware of your offerings. Probably the best-known affiliate network is Amazon.com's network. Thousands of websites have become resellers of Amazon's books and they get up to 15% of each sale. However, Amazon is still the big winner because the books are ultimately bought from them and they get to see the final profit.

Banner ad campaigning: Banner advertising is one of the simplest ways of advertising on the web. Today many website owners have switched to selling advertising to cover costs because the typical "netizen" refuses to pay for information. Just by following a few simple rules a site owner can ensure effective advertising as well as constant revenue. The following are a few basic strategies for banner advertising:

- Keep banners small- a banner should never slow down the speed of the content related page.
- Invest in design- an ugly banner will not be successful. Use a concise design to display the message.
- Avoid complex messages- a short compelling message is best.
- Make it readable- display the message in such a way that it is readable. Using fancy fonts may not work, as all computers may not be able to display them.
- Avoid complex animations- animations are cute, but they take too much time to download.
- Make sure the link works- the best banner ad is useless if the link leads to nowhere.

Banner exchange: Banner exchange agencies are a relatively new service. Here is how it works: Every Webmaster is now able to sign up with a banner exchange service. The Webmaster provides a banner promoting his/her website while at the same time allowing other banners to appear on their own website/s. Depending on the number of views or "clickthroughs" on the Webmaster's web page their own banner is displayed on other sites or they are paid for the service. There are basically two kinds of banner exchange sites: The first is extremely focused in its viewer profile (example: Anthrotech.com which exchanges banners on anthropologically related sites only). The second type of banner exchange is more general-purpose and it typically takes place with the help of a banner exchange agency, which offers to post banners on a wide range of sites.

The explosive growth in the number of dot com organizations has made the Web environment extremely cluttered. Attracting and keeping a web customer is becoming increasingly difficult. In order to give one's website a fighting chance the website itself has to be memorable, unique and above all provide indispensable service. Consumers rarely revisit sites that do not provide value. In order to survive the Internet age a company must be involved in a careful analysis of its Web objective while displaying tremendous savvy and ingenuity.

Chapter 6
Customer Relationship Management

Marketing has come full circle – from the person-to-person selling of the village corner store of times gone bye, to the impersonal world of mass media and mass merchandising, and now back once again to highly personalized customer contact strategies and an era of relationship based marketing. All this has been made possible by the wide proliferation of information technology and new interactive media (Rapp and Collins 1996). This progression from personalized to mass marketing and now back to personalized marketing has been a result of multiple environmental variables.

The initial small town storeowner catered to a limited clientele and over time developed profiles of customer preferences. With the dawning of industrialization, large-scale mass production and distribution methods revolutionized the way that products were brought to market. These advances created cost efficiencies that drove prices lower, making a broad range of products affordable to the masses. However, a price was paid for that standardization. Instead of products being configured to the needs of the individuals, consumers were required to compare the mass produced products and choose the one that most completely met their needs. This was accompanied with standardization in Marketing. Marketing messages were typically impersonal in nature and relied on one-way channels of communication such as TV and radio. It is important to recognize that during this period demand surpassed supply and often consumers were happy to get any product at a reasonable price.

Today, the marketplace is significantly different. Globalization and enhanced production capabilities have completely inversed the supply demand equation. Consumers are inundated with choices and improved technological capabilities allow high levels of customization. Businesses faced with this market dynamic are recognizing that consumers expect a high level of personalization and service. Gone are the days in which a business could adopt a customer acquisition strategy. Today, the focus is clearly on customer retention.

 Further, marketers are recognizing that most consumers today are convenience-driven and tend to deal with businesses that provide a quality product at a fair price, while simplifying their lives and adding value.

Customer Relationship Management (CRM) Defined

CRM is an integrated sales, marketing, and service strategy that coordinates all facets of customer interchange with a single focus of enhancing relationships by delivering optimal value (Kalakota & Robinson 1999). This delivery of optimal value allows the corporation to garner some unique benefits:

1. It provides the enterprise the opportunity to enhance the revenue stream by leveraging relationships. Continuity selling (examples of which include: renewing magazine subscriptions, or insurance premiums) and cross selling

(example being a banker understanding the client needs to inform/sell an array of banking services – checking accounts, car loans, home mortgage etc) are two strategies that are easily implemented via a CRM program.

2. CRM can further be deployed to understand and subsequently enhance the quality of the overall service encounter. The ability to integrate customer records in a database that allows the marketer easy access to updated records in a timely fashion are a cornerstone to providing quality service.

3. The ability to understand customer needs and to respond proactively to customer concerns/requests can be differentiating elements that are developed into a competitive advantage. Organizations are quickly learning that in an environment in which there is an abundance of choices, consumers are most likely to be loyal to organizations that provide value, and a high quality service encounter time after time.

Why is CRM Important?

For those who doubt the importance and relevance of CRM, a few sobering statistics (drawn from Stone 1999, and Kalakota & Robinson 1999):

- It costs six times more to sell to a new customer than to sell to an existing one.
- A dissatisfied customer is likely to mention his/her negative encounter to eight or ten people while a positive experience will result in it being mentioned just three to five times.
- Increasing customer retention by 5 percent can boost organizational profits by as much as 85 percent.
- Seventy percent of complaining customers will do business with a company if their complaint can be resolved quickly.
- The odds of selling a product are less than half of selling a product to a current customer.
- The most important order you can ever get from a customer is the second order. This because a two-time buyer is at least twice as likely to buy again as a one-time buyer.

CRM in the WWW Environment

The utility and application of CRM in the WWW environment is only heightened. Database integration lets businesses develop Web pages that can now access an array of backend databases without writing queries in complex database languages. The WWW provides businesses with an opportunity to create databases of online pricing and product catalogs, online shopping systems, dynamic document serving, online chat and conferencing, and many other interactive functions.

This above-mentioned merger between an organizations current databases and the WWW is critical because, it possesses the potential to empower consumers with the ability to

instigate communications with an organization at their convenience, which in turn adds value to the service encounter. The ability to track the complete transaction with an organization such as Dell Computer Corporation has been often cited as a source of competitive advantage for Dell. The consumer has the ability to track his/her order through the order processing stages through manufacturing, quality control, shipping, and finally even the shippers logistical system. As the intensity of competition on the Web rises, consumers will expect such value added exchanges with organizations with no barriers of time and place. As the sophistication and complexity of Web applications increase, access to relational databases will be essential hence it can only deemed prudent to integrate these into an organizations overall strategy (Kalakota and Whinston 1997).

 Databases have several advantages over the traditional language of the WWW i.e., HTML. These include, the ability to respond to inquiries with increased speed, greater flexibility in dealing with queries, ability to store large volumes of data, and the inclusion of complex/varied data types. All of the information companies wish to provide to their employees and customers can be made available, without having to change the structure or format of their existing database hence leading to no loss in value of the organizations investment in the current database structure while being able to enhance overall effectiveness by moving to a Web based architecture (Kalakota and Whinston 1997.

In totality it is only fair to conclude that the WWW has modified the marketplace forever. The most significant shifts have taken place in the marketing environment and the following table maps some these significant shifts:

Characteristic modified from	*To*
Mass marketing and advertising	Target, one-to-one interactive marketing and advertising
Mass production (standard products/services)	Mass customization
Monologue	Dialogue
One-to-many communications	Many-to-many
Customer as target	Customer as partner
Segmentation	Virtual communities tied by interests
Physical products/services	Digital products/services
Intermediation	Disintermediation

Modified from (Kiani, 1998)

Chapter 7
Financial Transactions on the WWW

One of the biggest challenges facing the e-commerce revolution lies in the ability of merchants providing a payment mechanism that consumers perceive as secure and convenient. Multiple alternatives have been proposed and are now in use for providing secure and convenient payment for Internet transactions, but none have anywhere near the acceptance that paper and coin based currency have today. For electronic commerce to gain acceptance beyond a niche market, ordinary consumers will have to be persuaded to accept some form of digital payment mechanism as being reliable and convenient to use as cash is today. The following is a brief discussion of some of the payment methods being contemplated as possible solutions.

Credit Cards

The most common Internet payment method for the business-to-consumer segment of electronic commerce is credit cards. However, the security of data transmitted over the Internet has been a major concern for customers. At present most companies use SSL (Secure Socket Layer) protocol to provide security and privacy. This protocol provides consumers a means to encrypt their order information. While providing a basic level of security this protocol has been breached and does not enjoy a high level of consumer confidence.

The major question facing all of Internet transactions lies in the encryption quality/security, data confidentiality, and data authentication. The risk in the instance of Internet commerce is exaggerated since hackers have access to credit card data as it travels over the Internet. The risk of faked use of another person's credit card is inherent unless a protocol can confirm the truthfulness of the cardholder on the other end of cyberspace.

To develop a secure method of financial transactions on the WWW Visa and Mastercard have jointly developed and offered a more secure protocol, called SET (Secure Electronic Transaction). The higher level of transaction security associated with SET came from SET requiring a customer certificate i.e., a special software commonly referred to as a (Digital Wallet) at the client side. SSL (Secure socket layer) is built into the browser, so no special software is needed. The Visa and Mastercard plan was to accept messages only if they conformed to SET protocol. In reality SET did not gain the quick adoption that was anticipated because of its complexity, slow response time, and the need to install the digital wallet in the customer's computer.

Electronic Fund Transfer (EFT)

Is an electronic payment method that transfers a money value from one bank account to another in the same or different bank. This method has been in use since the 1970's and is facilitated via automated clearinghouses. Internet (EFT's) has been an extension of the

same and once again their adoption is a function of the security levels between the cyberbanks and the transmission process.

Stored-Value Cards

Stored value cards also referred to as smart cards, use magnetic stripe technology or integrated circuit chips to store customer-specific information. These cards can be used to purchase goods or services, store information, control access to accounts, and perform numerous other functions. Some of the major benefits offered by smart cards include: reduced cash-handling expenses, reduced losses caused by fraud, expedited customer transactions, enhanced consumer convenience and safety.

E-Cash

Electronic or digital cash combines computerized convenience with security and privacy that improve on paper currency. Several types of e-cash have been introduced with the express purpose of facilitating micropayments: for example, renting software by the hour, or downloading pictures for a few cents. With micropayments, customers can choose informational products such as pictures or software on the Web; yet not have to commit to a purchase subscription. E-cash enables a low-cost niche between download of free Web content and transactions not large enough to warrant the administrative overhead of a credit card.

In comparison to cash, debit/credit cards have a number of limitations. Credit/debit cards cannot be given away because they are identifiable cards owned by the issuer and restricted to one user. Credit/debit cards are not legal tender and nor are they bearer instruments. Simply put, a merchant can decline acceptance of these cards while they certainly require an account relationship and authorization system.

Electronic Checks

Are based on paper checks, except that they are initiated electronically, use digital signatures for signing and endorsing, and require the use of digital certificates to authenticate the payer, the payer's bank, and bank account. The security/authentication aspects of digital checks are supported via digital signatures.

The major benefits of this payment mechanism include: They work just like traditional checks, thus simplifying customer education. They are ideal for micropayments since transaction costs tend to be small. This is true because digital signatures and bank authentication can be automated. Electronic checks create float, and the availability of float facilitates commerce.

The following is a summary table that compares the performance of different forms of monetary instruments that have been put forth as potential facilitators of e-commerce on criterion considered desirable.

Desirable Characteristic	Cash	Near Cash Credit Card	Debit Card	Stored value	E-cash
Portability*	Low (bulky)	Moderate (requires PIN authorization)	Moderate (requires PIN authorization)	High	Moderate (requires PIN authorization)
Divisibility	Limited	Any level	Any level	Any level	Any level
Borrowing	No	Yes	No (unused cash balance)	No (unused cash balance)	No (unused cash balance)
Security	Low	Moderate/high (up to credit limit)	Moderate (up to balance)	Moderate (up to balance)	Moderate (up to balance)
Privacy	High	Low/moderate (central authorization)	Low/moderate (central authorization)	High	High
Durability	Moderate	High	High	High	High
Transaction Cost	Low	High (central authorization)	High (central authorization)	Low	Low

*Portability and divisibility tend to decrease with increasing divisibility (This table is adapted from Westland and Clark 1999)

Financial Transactions on the WWW - The Issues

The key issues associated with financial transactions on the WWW include:

- Consumer protection from fraud
- Transaction privacy and safety
- Competitive pricing of payment services to ensure equal access to all consumers
- Right to choice of institutions and payment methods

For obvious reasons, all electronic payment systems need to be able to keep automatic records. The benefit of this system lies in its availability for permanent storage, accessibility, and traceability. However, the need for record keeping for purposes of risk management conflicts with the transaction anonymity of cash and can easily lead to violations in privacy.

Privacy remains to be one of the biggest challenges facing a quick adoption of a single payment mechanism on the WWW. The reality is that every time one purchases goods using a credit card, subscribes to a magazine, or accesses a server, that information finds its way into a database somewhere. All payment details of a consumer can be easily aggregated and essentially condensed to a single dossier. This dossier would reflect what items were bought, where, and when. In effect the technology as it exists today has the potential to violate any individuals privacy. This issue needs to be addressed and

safeguards incorporated to ensure consumer privacy. Guaranteeing transaction confidentiality and data integrity are a forgone conclusion for the future growth/adoption of Web based transactions/commerce.

References

Haylock, Christina and Len Muscarella (1999), "Net Success," Adams Media Corporation, Holbrook, MA.

Kalakota, Ravi and Marcia Robinson (1999), "e-Business – Roadmap for Success," Addison-Wesley Longman Inc., Reading, MA.

Kalakota, Ravi and Andrew B.Whinston (1997), "Electronic Commerce," Addison-Wesley Longman Inc., Reading, MA.

Kleindl, Brad Alan (2001), "Strategic Electronic Marketing: Managing E-Business," South-Western College Publishing, Cincinnati, OH.

Newell, Freerick (2000), "Loyalty.Com," McGraw-Hill, New York NY.

Pottruck s. David and Terry Pearce (20000, "Clicks and Mortar," Jossey-Bass Inc., San Francisco, CA.

Schneider, Gary and James T. Perry (2000), "Electronic Commerce," Course Technology, Cambridge, MA.

Stone, Bob (2000), "Successful Direct Marketing Methods – 7th edition," NTC Business Books, Lincolnwood, IL.

Tapscott et. al., (2000), "Digital Capital," Harvard Business School Press, Boston, MA.

Turban, Efraim et. al., (2000), "Electronic Commerce: A Managerial Perspective," Prentice Hall, Upper Saddle River, NJ.

Westland, J. Christopher and Theodore Clark (1999), "Global Electronic Commerce: Theory and Case Studies," MIT Press, Cambridge, MA

Glossary of Terms

Bandwidth: indicates the amount of digital information that can be carried over a line.

Banner ads: a common way to advertise on an Internet site.

Brick and mortar: refers to tangible physical assets such as a building or warehouse.

Business Model: is the basic process flow indicating how a business operates. It shows how business functions are liked together.

Channel conflict: exists when a company sells products to the same market through more than one distribution system.

Chat: involves a number of individuals who send messages over the Internet into a chat room for viewing in real time or to be viewed later.

Click-through: is having an individual click on a linked banner to link too other sites.

Company image: is how the stakeholders view a company.

Competitive arena: is the competitive environment in which a business operates.

Cookie: is a small bit of code left on a user's computer that is used by an e-business's database to look up information.

Customer relationship management: systems combine software and management practices to serve the customer from order through delivery and after-sales service.

Data mining: is the process of using software to gleam meaningful information from a database.

Database: is a compilation of information

Disintermediation: is the process of eliminating the middleman from the existing process/channel.

Distinctive competencies: are unique areas of advantage in which a firm can differentiate itself from competitors.

Domain name: the name that is used to access an Internet site.

E-business: are systems that use a number of information-technology based business practices to enhance relationships between the business and the consumer.

E-business value chain: views information technology as part of a business's overall value chain and adds to the competitive advantage of firms.

E-commerce: is the practice of engaging in business transactions online.

Hackers: are individuals who attempt to break into computer networks for pleasure or profit.

High involvement: exists when individuals consider the purchase or topic to be interesting or important resulting in the individual attending more closely to information and be more willing to expend greater time and energy in processing the same.

Home Page: the main page (commonly the first page) that a visitor sees at a Web site often linking to more pages.

Infomediary: is a firm that specializes in the capture, collection, or analysis of data.

Intermediaries: are wholesalers and retailers that facilitate exchange between producers and consumers.

Micropayments: are a means of paying for small Web transactions

Online communities: are groups of individuals who share common interests and use the Internet to foster their communities by accessing the same Web sites for communication, commerce, or support.

Supply chain: is the network of suppliers, warehouses, shippers, distributors etc., who may be involved in providing materials to an organization.

Value chain: is a way of envisioning the collection of activities that a business undertakes to design, produce, market, deliver, and support products or services.