

E-COMMERCE AND E-MARKETING WORKBOOK

Version 2.2

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Preface

This workbook is a part of a larger new venture planning tools development program. Its primary objective is to assist in the development of new business without large development staffs.

The tools consist of a series of workbooks designed to provide a check list of key issues that need to be addressed during the development of most business concepts. We believe that the process of venture development is an active one. While much of the workbooks focus on data collection, analysis and planning, we believe, that most activities should be dedicated to "hands on work" with the product, the process, and the potential customers. We hope that these tools will act to focus activities on "what must be done". The philosophy expressed in this workbook reflects that of the authors and not of the organizations or corporations involved.

We intend that this workbook and all others in the series will be "evergreen". New versions of the workbooks are expected to be published periodically, reflecting constructive comments by users. This workbook reflects the efforts of many individuals who have provided ideas and comments.

This particular workbook on E-Marketing has been developed as part of a graduate MBA course given at Villanova University. The comments by the students have help guide the development of the workbook.

Gene Lieb

The Structure of the E-Business

Chapter 1 - Organization Mission and Vision

1.1 What is the organization for which the e-business will be part?

Electronic marketing and e-commerce can support the totality of an organization or only a portion of it. Indicate the specific organization that the e-commerce function will support. What is the limits or scope of that support?

1.2 What does your business and organization do?

In order to understand what the e-business and e-marketing activities should be, we need to understand what the purposes and activities of the organization are. Since the function of electronic commerce is to facilitate the purpose of the organization, that description should reflect what is expected to happen as a result of those activities

1.3 How does it make money?

Money drives commerce. We need to understand the sources of funds for the organization to determine the role of its e-business.

1.4 What is the mission of the organization?

The mission statement is a clear concise description of what the organization is trying to do. Key to the mission statement is its current objectives. These consist of what the organization thinks that it is trying to do and what it expects the results to be.

1.5 Who are the stakeholders of the business?

Who influences the decisions? How do they influence them?

1.6 What drives the organization?

What drives the organization's decisions? How does it measure its own performance?

1.7 How is the firm organized?

How is the relevant organization structured? Who will be responsible for the development and results of the e-business?

1.8 How big should the organization be in the future?

How big with the relevant organization be five or ten years from now? What is the goal of the organization for which e-commerce is a part?

1.9 Where is the organization going?

What will the organization look-like in five or ten years? Will it be in the same "business" or is it evolving in a different direction. This is a "Vision" statement indicating how the organization is expected to change.

1.10 What are your products?

What are the products and services does the organization deliver?

Customers and Benefits

1.11 Who are your customers?

Who do you provides services to? Whom do you sell to? And, who pays you?

1.12 What benefits do your "offering" give your customers?

The "Offering" is the generalized product consisting of the physical product, attached and implied services, and the image of the product (brand name) and its suppliers. The benefits are derived from these characteristics that are both associated with the product and the psychology benefits (well being) associated with the supplier

1.13 What is the distribution of customer sales?

Customers are usually not equally important to the firm. Typically there is a wide distribution with a small number of return customers representing a dominant position.

1.14 Who influences the purchase decision? How do you know?

Sales transactions are influenced by a broad number of individuals. In direct Business-to-Business sales a number of separate people are involved in most important purchase decisions. In many cases involving Business-to-Business and Business-to-Consumers, “experts” and consultants may influence decisions. In some cases, such as pharmaceuticals, there is separation between specifiers (physicians), payers (insurance companies) and the users (patients). All may influence the decisions.

1.15 What benefits do the offering give to the influencers?

Not only must the offering provide value to the direct customers but to all those involved in the buying process. Each of the influencers must be provided some reason to help select the product.

1.16 What benefits does the purchase process give your customers?

The purchase process, itself, may give value to the customers and the influencers. It may provide financial rewards, confirmation of decisions, and social and psychological benefits.

1.17 Why do your customers purchase from you? How do you know?

Typically your customers have a number of options to select from. What is your competitive advantage? Why do they buy from you? What about you do they value?

1.18 What services do your customers require? How do you know?

What do your customers expect from you and their other suppliers? Is the service inherent? Is there a difference between what you think they expect and what they really expect?

1.19 How does your products get to your customers?

What are the distribution and sales channels? Is your direct customer the resellers or the users? How is the sale made?

1.20 How does information get to your customers?

How does the potential customer know about your products and their needs for them? How do they know where to purchase your products? How does your customer learn about using your products? How do you protect yourself from misuse of your products?

Chapter 2 - E:Business Function and Strategy - Objectives and Goals

2.1 Whose e-business (and web site) is it?

What organization is in charge of the e-business function? Who sets the objectives? Who is responsible? And who pays the bills?

2.2 What do you expect from the web site?

Web sites are capable of doing any number of functions for a business from generating an identity for an existing business all the way to creating a separate business including independent transactions and fulfillment activities. Usually, there is a more limited expectation for the site. What do we want the e-business web site to do?

2.3 How does e-commerce fit the long-term goals of the business?

Unless the e-commerce activities are a stand-alone operation, the long-range goals of the business are likely to exceed those of the e-marketing activities. As such, how does the e-commerce activities fit within those goals? Will the movement of activities to the web support or divert attention from them?

2.4 What impact do you expect, in the short term, from the e-commerce activity on the business?

What are your immediate objectives from the site?
How will this impact the business in the short run?
What can we do to measure the short-range impact?

2.5 How long can you wait for results?

The time it takes for the business to evolve may extend over a large period of time. How long are you willing to wait for the major impact of the web business?

2.6 How does the e-commerce activity fit into the Marketing Mix of the business?

Synergy among the various marketing channels, campaigns, and activities strengthen the overall effect. How are the marketing activities to be integrated? What part does e-Marketing play?

2.7 Who are the target callers for the e-commerce business?

Not all groups of customers are best suited for electronic service. In some cases, competitive advantage is obtained by personal contacts. Shifting these customers to electronic commerce may reduce revenues and weaken the business. However, some customers are specifically favorable for electronic commerce.

2.8 How will the site make money?

The justification of a web site, ultimately must be its impact on the “bottom-line.” Sites can reduce costs and/or increase revenues? What do you expect your site to do?

2.9 How will the web save money for the firm?

How will the site decrease costs beyond its own operating costs? These costs saving usually reflect a change in the practice of communications, service and selling. How will you measure those effects?

2.10 How much can you spend on the e-commerce program?

How much can you justify spending on the web e-commerce initiative? The web may be viewed as relatively inexpensive and it might be, but it isn't free. What is the order of magnitude of funds that you are willing to commit to the exploratory nature of e-commerce?

Chapter 3 - The E-Commerce Markets and Customers

3.1 What are the sales objectives of the site?

Selling is a multiple step process. Usually before the final sales several separate acts are necessary. The objectives should be based on those steps.

3.2 Who do you want to be the callers on the site?

Who are the targeted callers for which the site is intended? These may be potential customers, your salesforce or influencers to the sales process? What are they like? What jobs or functions do they hold?

3.3 Whom do you expect to be callers?

Not all of the callers will be those for which the site is specifically targeted. Who is likely to call on the site? Group them by what they might want.

3.4 Who are your potential customers? How do you know?

For the business transactions that you are targeting, who are the potential customers and influencers? Try to differentiate between your existing customers and those that you presently do not serve. It is usually the new customers that are difficult to identify and reach.

3.5 Who do you want for your e-commerce customers?

Of the potential customers whom are you going to target for e-commerce? These may be both existing customers that you intend to “better” serve and new customers that had been difficult or unprofitable to reach otherwise.

3.6 Can you differentiate by web site?

If there are different targeted customers with different product values you may try to price differentiate using different web sites. This would involve constructing different e-commerce strategies with potentially different pricing served by different web sites?

3.7 How do these customers purchase products presently? How do you know?

How do these potential customers presently find, decide upon and purchase products and that you intend to offer by e-commerce? Do all of the use the same process?

3.8 How would these customers purchase your products on line?

How will their purchase process change by use of e-commerce? What will e-commerce offer these customers to ease their purchasing process?

3.9 What are the their sources of confusion?

All things go to greater confusion (A variation on the Second Law of Thermodynamics). What are the sources of confusion in the purchase process that you are interested in?

3.10 How do these targeted customers know what they want to purchase?

If you don't know where you are going you can't get lost, but you probably won't be happy when you get there. What are their sources of information? What kind of information do they need to even specify what they want?

3.11 How can they get to what they want?

For the on-line process, how will the purchase process take place? Describe the general search process, selection, and purchase transaction.

3.12 How are you going to guide the process?

The trick to marketing is taking over the purchase process. How do you intend to do this on-line for the targeted e-commerce customers and their key purchases?

Chapter 4 - Sources of Competitive Advantage

4.1 Who are your on-line competitors?

The development of an on-line presence changes the competitive structure of the market. What you sell and do on the web determines who your competitors are. Traditional competitors may not be relevant since they may not be competing in the specific markets nor with the specific products. Previous customers, however, now may become competitors.

4.2 Why are customers loyal to you?

Why do they like buying from you? What is your image that they respond to? What services and product characteristics that they value are associated with you?

4.3 What do we mean by loyalty?

How do you measure customer loyalty? How do you intend to exploit that loyalty?

4.4 How are you better than the competition?

How does your product perform better than the competition? What better services do you do? Why are you preferred over the competition?

4.5 What are the barriers of entry?

What stops new firms from entering this business?
What are the critical factors limiting penetration?

4.6 How can e-commerce provide competitive advantage?

What advantage will e-commerce provide you or block the competition? How will e-commerce provide that advantage?

4.7 What competitive threat does e-commerce pose?

What happens if you do not successfully compete on-line? What types of damage can be created? How severe is that threat?

4.8 What gives your products value?

Why do potential customers value your products compared to the competition? Are they distinguishable?

4.9 What gives your site competitive value?

Why should someone come to your site rather than the competitors'?

4.10 What image does your organization wishes to convey?

What mental attributes do you wish to convey to the caller and customer about your products and firm?
Is that a consistent image?

4.11 How does that image differentiate from the competition?

How does that image differ from that of the competition? How will you differentiate yourself from the competition.

4.12 How will you utilize branding in your e-commerce strategy?

Branding is often the only way of standardizing products and providing differentiation. What will you brand and promote? How will you brand on-line?

4.13 What will your pricing strategy be?

Are your products to be premium price? Do you intend to be a low priced site? How can you be competitively priced and still not drive the market to an unacceptable pricing structure?

Site Strategy

Chapter 5 - Information Delivery

5.1 Who are the valued callers of the site?

Callers include not only potential customers but many other information seekers. Who of these are valued by the business? What value could they have for the business?

5.2 What information does each group of callers want?

The web site is basically a source of information. Each type of caller may need different types of information. What kind of information do they want?

5.3 What information do they each need?

Usually the desire exceeds the need. From your perspective and that of the e-business what information does these callers need?

5.4 What information must be available?

Certain information must be made available or is generally expected. For publicly traded firms, corporate and investor financial information is expected. Corporate identity usually requires basic structure and mission of the firm. Lists of contacts within the firm are also generally expected and necessary.

5.5 What are the effective forms of the information that is most appropriate for the callers?

Information can generally be presented in a number of ways. Quantitative information in particular can be presented in different forms. Subjective materials can be presented as video, audio, tables as well as textual documents. Which is appropriate depends on the callers.

5.6 How will the temporal information be updated?

Much of the information changes over time. Some can change drastically over a short period of time, such as pricing. Others change slowly and periodically. Product composition and standards may change with processes and feed stocks. Product available such as publications and specialty product will vary. How will you update these products? Who will be responsible?

5.7 How will you assure that the information in-use is most up-to-date?

Old data could be less than worthless. Much of the data, particularly pricing and availability of products are only as good as the most recent evaluation. Assuring that the data on the web is up-to-date is critical. What process will be used to assure that the data is up-to-date.

5.8 How will you assure that the information is correct?

Who will check that the information on the web site is correct? What policies will be in place to assure the correctness of information?

5.9 How will you assure the caller that the information is correct?

The web is full of misinformation. How will you reassure the caller that the information on this site is correct and that the firm will stand behind its accuracy?

5.10 What information will you obtain from the caller? How will you get it?

The web is a two-way conduit. Information can flow both to the caller and away from the caller. What information will you obtain from the caller? Will you try to identify the caller (Cookies)? Do you want run pricing experiments on-line?

5.11 What do you intend to do with that information?

Why are you going to collect information? How can the information provide you competitive advantage? How can you make money from the information?

5.12 What are the savings using this mode of communications over alternatives?

Communications is expensive. How will this site save you money over conventional means of communications? What are the alternatives? If the web did not exist would you use the alternatives?

Chapter 6 - Attracting Traffic (New Customers)

6.1 How will targeted callers discover your site?

If you build it, they may not come! How do you intend to get the targeted callers to your site? Why are they going to come in the first place?

6.2 What type of “domain” strategy will you use?

How will you select domain names to get first time callers? How will you differentiate from the competition? How will you assure that you can get the appropriate names?

6.3 How will you advertise the site?

Where are you going to advertising the web site? How is that going to be done? How much can you afford to pay for advertising? What about cooperative advertising?

6.4 What are the Portals and Hubs that service your trade?

Portals and Hubs are web sites that specialize in providing access to vendors. They act as a “Mall” in attracting “traffic” for a particular industry or type of products. General Portals such as ThomasRegistry.com provides directions for the selection of vendors for industrial products. Other provide a “reverse” marketing access by bringing sellers and buyers within an industry together.

6.5 What value do Portals and Hubs provide your customers?

How important are these Portals and Hubs in the industry that you serve?

6.6 What kind of relationship will you have with the Portals and Hubs?

What kind of relationship do you want with the Portals and Hubs? Often they offer a number of ways of working with them. The major issue is often cost.

6.7 How much will it cost to use Portals?

What is the cost/benefit of using the Portals and Hubs? How much will it actually cost?

6.8 Is direct E-mail appropriate and ethical for your business?

While unsolicited e-mail is not illegal, it is viewed by many as unethical. However, not all e-mail is totally unsolicited. Mailing lists are available with individuals who have noted interest and, some extent, having given permission for promotional of e-mail. Can you use promotional e-mail in your business?

6.9 If so, whom would you contact by direct e-mail?

Who would you contact by e-mail? How would you find a reliable list? What would be the message? How would you get readers to become your web site callers?

6.10 What will direct E-mail cost the firm (monetary and otherwise)?

How much would it cost both in direct costs and in public opinion? Might you lose more than gain with such a exercise?

Strategy regarding Search Engines

6.11 Which search engines (sites) are important to your customers?

Not all search engines are created equal. Some search engines are designed for technical searches while other are for more general applications. While Yahoo and MSN are leading search engines and sites they are more likely to attract the casual user while AltaVista and Googoo are more technical and extensive.

6.12 Are search engines (sites) important to your e-commerce strategy?

Will customers use search engines to find your site? For some applications, search engines are the main source of first hits. However, in other cases, Portals, Hubs and direct advertising will be the major drawing source.

6.13 How will you assure good placement at those sites?

It is insufficient to be captured by a search engine, you need to be high in the placement of the listing. There are tricks to increase the placement. Some search engines will guarantee a high position at a price per hit. In other cases, proper use of “page headers” can improve the hit rate and the position. Several firms are available that can help in registering sites on to search engines and help improve placement.

6.14 Should you advertise on search engine sites?

Search engines (as well as Portals and Hubs) provide opportunities to advertise. How much would it cost to advertise on the search engines? What are the advantages?

6.15 What relationships do you wish with the major home sites?

The major home sites (Netscape and MSN) are both search engines and starting pages. Do you wish to develop a relationship with these sites? Do you wish to advertise there? How much will it cost? What are the advantages?

6.16 Should you provide access to search engines on your site?

Interconnectivity is an advantage and a disadvantage. Many of the search engines encourage sites to link to them or provides site search capabilities.

Chapter 7 - Keeping Customers (Returns)

7.1 Whom do we wish to be return callers?

Some callers you want to return. Others are better thought of as single callers. Whom do you want to call back? Why are these callers different from the single users?

7.2 What is the value of first, return and single callers?

We think of three types of callers: (1) first time caller whom we want to return, (2) single time callers whom we do not expect to return, and (3) return caller whom had previously called. All three have different values to the business.

7.3 What do the first, return and single callers want and expect? How do we know?

Each of these callers may want different things from the site. Clearly return callers have different expectations than those who had never called. We can not rely on our own knowledge of the wants and needs of callers. Unfortunately, marketing research in this area is difficult.

7.4 How can we make the site very valuable to the return caller?

What can we do for the return callers to give him value? What unique service, information or offer can we provide that will encourage him to return?

7.5 What kind of decision support do you wish to have on the site?

The web provides broad programming capabilities that allow for development of decision and purchase support activities. Can we utilize that capabilities to provide purchase and design support facilities for our preferred callers? Can we provide both a "fair" universal decision support and still serve the purpose of the web site?

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7.6 What defines "ease of use" to the return caller?

For a web to be attractive to a caller, it must be viewed as "easy to use." The issue is easy to use for whom and under what conditions.

7.7 How can we make the return caller "Bookmark" the site?

Bookmarking is the identification of the site on individual browsers. How will you encourage callers to bookmark the site? Can you have the site automatically bookmarked?

7.8 Do we wish to make the site "personal"? How should that be done?

The bi-directional nature of the web allows for personalization. This has become a standard feature of advanced web sites. However, it comes at a cost of knowing what will appeal to or potentially turn-off the potential callers. How can we utilize the "personalization" to keep the caller coming back? What is he interested in? What are the specific advantages and dangers that personalization might produce?

7.9 How will you maintain trust?

Maintaining callers' trust is and will be critical to get callers to return. Trust covers the truthfulness of information and offerings as well as security and confidentiality of transactions. What policies will you have to assure this trust? How will you communicate the policies to the callers?

7.10 How will you make the site "ever-green"?

Sites get boring! How will you keep the site interesting to return callers? What programs or policies will you put in to update the site? How frequently will you update the site? How will you inform the callers that the site has been updated?

Chapter 8 - Site Design

8.1 Who will be the manager of the site (Web Master)?

“The Tragedy of the Commons” -- Things owned by everybody are owned by nobody. There should be one and only one owner of the web site and a the manager of the e-business. Who will run the web site? Who will he be responsible to?

8.2 What are the site "deliverables"?

What products and things will the web site deliver? Specifically, what are the particular things that the web site must do?

8.3 What type of "professional look" will be provided to the site?

What is the "Look & Feel" for the site going to be like? How are you going to assure that the look is attractive to all callers?

8.4 What types of logos will be used to assure the user of his location?

Logos provide both a branding of the web site and the assurance of the maintenance of location. Several logos may be used to provide identification of the firm, the organization, products and functions. As such a number of logos may be used. It should be noted, however, that the same GIF file containing the logo should be used. This prevents the need to download extra files.

8.5 What type of structural "metaphor" will be used provided a natural linkage within the site?

The metaphor provides an overview for the architecture of the site. Typical types are a filing system, or a store, or a newspaper. Simple metaphor may provide a unique feel to the site without increasing its complexity. However, graphically implemented metaphor may result in difficulty in development and long download times.

8.6 What is the architecture of the site (linking structure)?

What are the elements of the site? How will you link them? How will you assure efficient flow through site for the different types of callers?

8.7 What frame structure will be implemented?

Frames maintain control of the screen real estate while providing screen changes. However, it limits the useable space for information. Typically, frames are used to maintain a central menu structure through the website, but at the severe loss of flexibility.

8.8 How will you differentiate between the types of links?

There are at least three types of links used on websites: (1) to a different point on the web page, (2) to another page on the site, and (3) to a different site. Each produces different results and should be differentiated if feasible.

8.9 What type of background will be used?

Backgrounds can run from simple colors to complex patterns. Repeating patterns are easily downloaded however, do produce problems regarding printing and may look different on various browsers and screens.

8.10 How will the site's proprietary material be protected?

Maintaining control of proprietary material even if it is to be openly shared can be difficult. Typically these materials are transferred as Acrobat files which limits their modification. Indications of copyright are also typically used. However, additional controls such as password entry may also be used which will limit access.

8.11 How will you establish uniqueness for the site?

All sites begin to look the same. How are you going to establish uniqueness? What types of logo's, images, banners and animations do you intend to use? How will that effect the efficiency (downloading time) of the site? Will all browsers see the site the same way? Will you need specific plug-ins?

8.12 How will you maintain consistency throughout the site?

For a professional looking site, all of the pages must be consistent. How will you maintain that consistency? Who will enforce the consistency?

8.13 What search facilities should you provide on your site?

Will you provide an internal search facility in the web site? Which one will you select and why? How will that change the flexibility of the web site (FrontPage)?

8.14 What provisions will be included on the site for handicapped users?

There are a broad range of difficulties that users can have with websites due to reduced sensory and motor skill abilities. Color blindness is a fairly wide spread difficulty. Typically information that is available graphically need also to be presented in text form to avoid visual problems. However, there are a number of other actions that might be taken to simplify the readability of the site.

	Guideline	Evidence
1	<i>Short pages for (a) home and all navigation pages, (b) pages that need to be browsed quickly, (c) pages with long graphics</i>	2
2	<i>Use long pages to (a) simplify page maintenance (fewer Web page files to maintain), (b) match the structure of a paper counterpart, and (c) make pages more convenient to download and print.</i>	2
3	If reading speed is important and response time is reasonably fast, use paging (linking) rather than scrolling.	3
4	Use many, carefully selected headings, with names that conceptually relate to the information or functions they describe.	4
5	Align (vertically and horizontally) information, items, and widgets on a page, window, or screen	4
6	Reduce the amount of unused space on pages used for scanning and searching.	4
7	Put important items at the top, "above the fold" (in the first screenful of information), to ease scanning.	3
8	Research has shown that fonts smaller than 10-point elicited slower performance from users. For people over 65, it may be better to use at least 12 or 14 point. A rule of thumb is for a size 3 character on the users screen to equal a printed 12 point character of the same font.	4
9	Use either a familiar serif or sans serif font to achieve the best possible reading speed. Do not mix serif and sans serif fonts within the text, because it may decrease reading speed.	4
10	Research shows no reliable differences in reading speed or user preferences between 10-point Times Roman, Georgia serif fonts, Helvetica, or Verdana sans serif fonts.	4
11	<i>Avoid using graphics that do not have descriptive labels as clickable items wherever possible.</i>	2
12	Use only graphics that enhance content or that lead to a better understanding of the information being presented. Users may be willing to wait for graphics to download when they add value to the site's	3

	content. Regardless, use small and few graphics when possible to reduce download time.	
13	If reading speed is important, use longer line lengths (100 characters per line) rather than shorter line lengths (55 characters per line). Users read faster when line lengths are long, although they tend to prefer shorter line lengths. When designing, first determine if performance or preference is important. If user performance is critical, use longer line lengths to increase reading speed. However, if user preference is critical, use shorter line lengths	4
14	Enhance scanning by providing clear links, headings, short phrases and sentences, and short paragraphs. Users tend to scan, stopping only when they find something interesting. Research shows that users have difficulty finding a specific piece of information when the page contains wall-to-wall text. Users struggle to find alternatives to reading. They resort to a modified scan strategy and usually read the first sentence and/or scan for links on the page.	3
15	<i>If response time is reasonably fast, and the page is used primarily for navigation, use paging rather than scrolling.</i>	2
16	Write sentences with 20 or fewer words and paragraphs with fewer than five sentences. Use lists to break up long sentences.	3
17	<i>Provide an alternate form of all documents, resources, or files that can be printed in their entirety.</i>	2
18	Put as much important content as close to the top of the hierarchy as possible. It is beneficial to "flatten" the hierarchy and to provide more information sooner. The more steps (or clicks) users must take to find the desired information, the greater the likelihood they will make a wrong choice.	4
19	<i>Do not rely on color alone to communicate a message.</i>	2
20	Automate as much of the site's function as possible. Eliminate the need for users to perform tasks like performing mental calculations, making estimations, recalling account numbers and passwords, etc.	4
21	Place a logo(s) in a consistent place on every page to ensure users are fully aware they are on your Web site.	4

22	Present information and similar functions consistently throughout the site, including logos, page titles, headers, navigation elements, etc. Also use a consistent position on all pages for logos, recurring text, buttons, and graphics.	4
23	<i>Keep Web page size at or below 30,000 bytes for an acceptable downloading time.</i>	2
24	Do not include frames in Web sites, unless there is a strong (clearly defensible) reason to do so.	3
25	Create Web pages that load quickly. Computer should respond to simple user entries within two seconds Recent studies have reported that with data entry tasks there is no advantage of having response times faster than one second. Ideally, pages should download in two seconds or less.	4
26	Design for computers with 17-inch monitors	3
27	Design for monitors with a screen resolution of 800 x 600 pixels.	4
28	<i>Wherever possible, use text-based navigation aids.</i>	2
29	<i>Use the right margin for the Web site's main index.</i>	2
30	<i>Place important links and information high on the page</i>	2
31	<i>Clearly indicate when a link will move users to (a) the same page, (b) a different page in the same Web site or, (c) a page on a different Web site.</i>	2

4 - One Category A Experiment (Hypothesis Testing) supports the guideline.

3 - Two or more Category B Studies (Observational Evaluation/Performance-Based Usability Tests) support the guideline.

2 - *One Category B Study (Observational Evaluation/Performance-Based Usability Tests) supports the guideline.*

Ref: <http://www.usability.gov/guidelines/>

For On-screen Body Text

Choose a font with these characteristics: minimum 12- or 14-point size (if the font has relatively small characters compared to other fonts of that size (e.g., Times), choose 14; if the characters are relatively large (e.g., Bookman), you can choose 12)

Use plain (roman) style, rather than bold, italic, outline, shadow, or other style sans-serif or with serifs that are not too fine to render well on-screen

Use proportional font (unless it is necessary to choose a non-proportional font for some reason)

For On-Screen Headings and Titles:

Generally choose a font with these characteristics: 18-36 point size (assuming 12- or 14-point body text)

Use plain (roman) or bold style is acceptable; italics may be used if the font size is large enough to render well on-screen

Either sans-serif or serif font is acceptable (it often works well to have the opposite of body text--i.e., if body text is sans-serif, make titles/headings serif, and vice versa)

Due to the size of titles/headings, outline fonts may render well enough on-screen to be usable

Use proportional font for Titles

Chapter 9 - Site and Concept Testing

9.1 What are the characteristics of site performance?

What are the “functional imperatives” of the web site? What must happen or must not happen to the caller on the site? What does the caller reasonably expect from the site? Think in terms of efficiency and effectiveness from the callers' perspective?

9.2 How will we measure site performance?

How are you going to measure performance? These must be analytical and quantitative measures? How will you capture caller satisfaction? How will you measure on-line performance?

9.3 How are you going to test the site performance with potential customers?

What procedures and resources are you going to use to determine if customers can use the site effectively? How are you going to select respondents that represent your targeted caller base?

9.4 How are you going to functionally test the site?

As time goes on, links are external and internal links are lost or misdirected. Firms may change IP's requiring different identifiers and URL's. For example, IP's operating under a Microsoft operating system are not sensitive to letter case (capitals and small letters) while Unix is sensitive. These changes and other can make previously functional links no longer operable. How are you going to determine that the site is continuous operational? Do all your links continue to be function appropriately? How frequently will you test functionality of the site?

9.5 How are you going to test the performance of the site across browsers, platforms, and plug-in requirements?

Browsers, platforms, and plug-in applications may perform differently or not at all on some web pages. This is particularly important with web pages using scripted codes. Some versions of these codes work differently on various versions of browsers.

9.6 How are you going to determine the consistency of the site image across browsers, platforms and monitors?

Browsers, platforms, monitors and connections will effect both the appearance and the speed of websites. It is critical important that a satisfactory appearance is maintained. This is important if the requires plug-in's since versions of these programs may behave differently with different browsers and conditions.

9.7 What are the characteristics of customer usability for this site?

Beyond the impact of individual features of the site is the overall usability of the site. This is both the functionality of the site as a whole and the overall impact of the site or its “Gestalt.” Indicate what constitutes the customer and caller usability of the site. This should include expected wait times and complexity of the linking structure.

9.8 How are you going to test customer usability?

How will usability be tested? This type of testing usually involves preselecting user objectives and determining the ability of the site to efficiently meet them. This is often a complex process. Alternatively, survey data on the use, effectiveness and efficiency can be obtained from a panel of users. Indicate what would be on such a survey, the frequency of testing, and sample size.

9.9 How are you going to determine usability among handicapped users?

Determining if a site is suitable of handicapped users is as complicated as there are various type of potential handicapped user. Which group of handicapped users will you use to test the site if any? Do you view handicapped usability as an advantage or a necessity for the site? If it is necessary, which groups need to be tested? How will the site be tested? How frequently?

9.10 How are you going to test the security of the site?

Security protection is an on going battle with those who wish to violate your site. As such, it is critical to have an on-going process of security testing. How are you going to test the site against unauthorized actions? How are you going to test the security of your databases, in particular, customer information? How are you going to test against the passing of viruses?

9.11 How are you going to determine the customer value of site features and promotional efforts?

Usually it is insufficient to merely test site characteristics. It usually necessary to understand the value that customers attribute to site features. Survey research is typically used to obtain that insight. What key characteristics and features do you need to investigate? What research procedures do you intend to use to capture this value? Who will be your target respondents? What should be the sample size?

Chapter 10 - Transactions, Fulfillment and Quality

10.1 What part of the transaction process will be done on the site?

It is not necessary that any of the actual transactions be carried out on-line for the e-business. For many of the B2B operations it is desirable to have the actual transactions be done either through e-mail, over the phone or in person. The choice of what functions to automate should reflect the marketing strategy as well as economics. Outline the transaction process and identify those parts to be done on-line.

10.2 If you plan to complete orders on-line, how will you handle payment and credit?

Facilities to handle on-line credit card payments are relatively easy to obtain for domestic transactions. However, how will you handle other forms of payment? How will you determine who you will extend credit to? What will be the terms? How will you handle funds transfers?

10.3 Will you automate the back-office processes?

Many (if not most) back-office processing of transactions are still handled manually. How will the transactions be processed? With the transaction processing be integrated into the existing business or handled separately? What degree of automation is desired? What is the breakeven point for an automated process?

10.4 How will you fulfill orders, and how much will it cost?

The process of product fulfillment is probably the most open to creative solutions existing in e-commerce today. Finding an inexpensive manner for fulfilling orders would deliver significant competitive advantage. How do you intend to fulfill orders? How will you handle delivery? Can you use the existing facilities and manpower? How much will it cost as a function of the size of the order?

10.5 Can you fulfill the transaction on the site?

Is it feasible to fulfill the order through electronic commerce? Some products such as music, videos, financial instruments, airline tickets can be transmitted electronically. Is it feasible in this business to use this technology? Once again, this is a potential competitive advantage.

10.6 How will you keep a finished products inventory?

Maintaining a finished product inventory is often the greatest investment in the e-business. Can you avoid keeping a large inventory? What are the legal requirements for product-on-hand? What effect would reduce inventory have on delivery? What are the customers' expectations for delivery? Who will finance the inventory? How much will it cost?

10.7 How will you track orders and transactions?

Getting the orders is only the first step. The transactions need to be recorded and acted upon. The whole process needs to be tracked in order to assure completion and to respond to complaints and inquiries. Customers will only return if they have confidence in the process.

10.8 What type of EDI support will you provide?

For business to business transactions, the tracking process can be significantly more complex with exchanges of any number of documents and contracts. Over the past two decades Electronic Data Interchange have been established to facilitate this process. Migration to the web is a general trend.

10.9 What security provision will you provide?

Security is both a real problem and one of perception. It is insufficient to provide extensive real on-line security without providing the user with a secure feel to the system. Indicate what are the security objectives and what procedures are being taken to accomplish them.

10.10 What are the comparative costs of on-line transactions and alternative approaches?

How much will on-line transaction cost compared to manual transaction completion? While the initial costs of “shopping carts” and sales closure system (credit card approvals) may be relatively small, on-going costs may be significant.

10.11 How large a staff do you need for fulfillment and support?

Fulfillment services are generally labor intensive. Whether this fulfillment function is independent of the existing business can greatly effect the size of the needed staff. If it is independent, the initial staff requirement can be large.

10.12 How will you assure customer satisfaction in the purchase and transaction on-line process?

Customer satisfaction rests not only on completing the process as expected but handling the unexpected. How will you handle complaints? What policies will you have in-place to make refunds and returns? Will these be handled separately or as a part of the existing business? How will you assure proper operations? What kind of customer satisfaction studies will you conduct?

Preparing for the Future

Chapter 11 - Globalization

11.1 What are your global e-business objectives and goals?

The Internet is truly worldwide. What do you wish to accomplish regarding the worldwide nature of the web? What types of foreign business are you looking for?

11.2 What are your global strategies to achieve those objectives?

The World Wide Web is a two edged blade. It represents great opportunity but also a threat. What are you going to do to make those objectives a reality? How will you handle foreign competitive threat?

11.3 What alternative language provisions will you provide on your site?

While English is still the main language on the Web, only a small fraction of the world's population speaks or reads it. What other languages are of importance to your global strategy? How will you accommodate them? What types of translation packages will you consider using? What are the risks and benefits? What is your timing for multiple language capabilities?

11.4 What types of measuring units will you use on the site? What provisions will be available for unit conversions?

"English" measuring units (feet, pounds, and gallons) are the exception in the global economy. Almost everywhere, other than the United States, the metric system is used. However, even here there are variations in unit sizes. How will you support conversions between units.

11.5 What types of monetary units will you use on the site?

Generally for the United States US\$ is the standard currency. However, we are looking for international trade we may need to consider various local currencies or the general European currency, the Euro. In any event, a means of handling currencies and exchange rates may be needed.

11.6 How will a foreign caller find your site?

While foreign callers may use the same Search Engines, Hubs and Portals as the US callers, they may not. What are the avenues of entry for these callers in your industry? How do you know?

11.7 How will you determine the foreign market positions for your products?

What are your foreign competitors? What are your competitive advantages over them? What are your weaknesses? Does the foreign markets know you exist? How does your foreign position differ from that in the United States or locally?

11.8 Can you price differentiate by language?

Costs of foreign sales may be significantly higher than domestic. These include modification of products, transportation, support as well as marketing costs. As such, can you charge more to foreign customers. Do you want to? Can you differentiate depending on location?

11.9 How will you respond to a foreign information request?

All sites are open for requests for information. Foreign requests are particularly difficult since they may require language translation. In addition, there is always a danger of strengthening competition. Foreign competitors, in particular, are prone to ask for proprietary information as if they were potential customers. How will you screen requests for information? Will you translate your material to their languages?

11.10 How will you respond to a foreign purchase request?

Remember the Chinese Curse: "Beware of what you wish for, you may get it." What will you do with foreign purchase requests? How will you process them?

11.11 How will you handle foreign payments?

How will you handle invoices and funds transfers? What about tax requirements and foreign monetary restrictions? Not all currencies are “floated.” How do we transfer these currencies (rubles) to US currency.

11.12 How will you handle offshore fulfillment?

How will you handle fulfillment? How will you get the products there? How will you handle returns? How will you handle the export requirements and restrictions?

Chapter 12 - Future Expansions

12.1 What is your "step-out" strategy for expanding your web presence?

What happens if the site becomes popular? What contingency strategy is in-place to exploit the growth without producing undue exposure? How will you fund the growth? How will you assure continued profitability?

12.2 Is your system scalable to allow for rapid growth?

How will your system handle rapid growth? Can you Internet Service Provider handle a large growth in calls? How will the effect your economics? What charges will take place? Can your Back-Office handle the traffic? How will you handle the inventory requirements?

12.3 How will you exploit or limit the impact of the “Digital Divide”?

The Digital Divide exists not only between the economically advantaged, but between the educated and the less educated. The greatest problem is still between the literate and the illiterate. At present, the Internet is off limits to the functionally illiterate. Will this represent an major problem in the future?

12.4 How will the availability of broad bandwidth effect your e-business strategy?

How will you exploit the availability of broad bandwidth to create competitive advantage? How will you handle the transition between limited to widely available broad bandwidth?

12.5 How will you utilize video, audio, and VR on-line technology?

Video, audio and virtual reality tools are already available. How will you exploit them? How will you assure that the skills are available to make these tools professionally executed? Where do they fit into the mix of web tools? How do they help or constrain the global strategy? When do you believe it will impact your strategy?

12.6 What impact will dynamic web construction have on your site and strategy?

The ability to customize presentations to the specific caller either through *DHTML*, *XML*, or *JAVA* offers a new dimension to the interaction between callers and the site? How will you exploit these capabilities? How will you assure that it is functional? When do you believe it will impact your strategy?

12.7 Will the present security provision be adequate in the future?

A rule of war is that for every defense, there will always develop an offensive tools to over come it. Unfortunately, we can expect the same in web security. Whatever tools we find to protect the web sites and the commercial traffic on them, someone will find a way to bridge it. What kinds of provisions are you planning to continuously upgrade the security systems? What types of “collective” actions do you foresee for the industry?

12.8 How will you exploit wireless web technology?

Wireless technology is clearly on the rise. Web access through wireless notebooks, PCA and other appliances will provide a broader range of possible interactions. How would you exploit that capability? When do you believe it will impact your strategy?

Glossary

Back Office	Data processing and analysis activities connected with transactions (usually originating from a Web-based exchange) is referred to as "Back Office" market processing. This concept has been extended to include all data processing activities connected with e-commerce.
Bandwidth	The maximum ability of communications systems, in particular the Internet, to transmit data. Technically this usually refers to the specific maximum rate of transmission within a line. However, in a more goal oriented environment, it refers to the expected rate of transmission and includes other inhibitors to receiving information.
Banners	A web site advertising tool consists of a small graphical line of material usually moving across the web page. Because of motion, color and placement it is usually viewed as being separate from the rest of web page. Banners are often used as independent advertising between web sites and e-business offerings.
Browsers	Web browsers are the programs that allow personal computers (TV Web) to received and operate on the Internet and the Web.
Decision Support System	Programs, whether independent or web based that assistance in making a specific decision. These tools have been historically used for business strategic planning and military fire control. On the web, they have been targeted to purchase assistance.
Dynamic HTML	An extension of HTML design to allow formation of HTML pages based on external information either obtained directly from the caller to be held by the program. It is formed at the user's machine and is handled by the Browser.
EDI	Electronic Data Interchange - This includes a broad range of mainly business-to-business involving exchange of electronic "paper" including invoices, contracts, transportation (import and export) documents, specification changes, product routing information and verification, as well as money transfers.
E-Mall	This is a portal design around a shopping mall metaphor. Typically peripheral control is maintained (usually by use of frames) with the portal while the user may link to the individual stores. This structure has mainly be implemented for consumer retail operations.
E-Store	These are on-retail outlets, usually with limited range of products, but focus in a single category. These are often manufacturers' on-line outlets.
Hits	The total number of pages, images and objects downloaded by callers to a web site. Because it includes all objects and pages, hit greatly exceed

	number of calls.
Hub	A Web Site that acts as a central depository or destination for a common group of callers or serves an industry wide purpose. (secondary meaning: part of a network connector). Hubs and portals usually are considered to be a “neutral” connector to other sights with little or no direct commercial activities on the site.
Java	Full programming language designed to allow for complex operations at the browser rather than being produced on the server. It is derived from the objective oriented language C++.
Javascript	An extension of HTML that allows a number of complex operations and dynamic page formations including frames and computations.
Links	Connections between web pages or objects within pages. It is the means by which one navigates around sites and the web.
Platform	A line of computer systems that are able to execute a common set of programs as coded. Upward compatibility of the systems and the lack of unique disqualification define the platform. As such, the Pentium generation of Intel processors often thought as a single platform.
Plug-ins	Software packages that are added to the browser that allows the interpretation of different file forms. Plug-ins exist for audio, video, "virtual reality" as well as other formatted information.
Portal	A web site, which is the main access to a family of, sites covering an entire field or representing a significant portion of the field. Hubs and portals are generally considered to be “neutral” and have little or no direct commercial activity on the site.
Scalability	The ability of a system and web site to grow with the business opportunity and demand without rewriting and developing the underlying programs and code.
Search Engines	Web sites that provide search capability across the whole World Wide Web.
Site Architecture	The layout of the links and logic flow of the web site. It describes the options of the Web sites and shows the expected information flow paths for typically callers.
Site Design	Site design includes the architecture and the esthetic and functional characteristics of the web site that provides effectiveness, competitive advantage, and caller value.
Standards	There are two forms the standards that are set that impact e-commerce: (1) formal standards set by government or international organizations (ISO) and (2) de facto standard derived from the action of a industry. Microsoft and Intel recently, and IBM in the past, have set computer standard based on their dominance of the market. Recently this relationship between formal and de

	facto standards has become blurred with the acceptance of a firm (Sun) to set the JAVA standards (within the context of a community process).
Superstore	On-line superstores are similar to portals in that they are intended to provide a broad range of services. But on like portals and malls, the provide services from one source. The differentiate from e-stores by the range of product and services.
Virtual Reality	Desktop virtual reality involves interactively viewing (and exploring) 3-Dimensional objects and scenes as if they were "real." This makes involve construction of a 3-Dimensional representation of the objects by use of a VRML (Virtual Reality Markup Language), or by allowing panoramic viewing of a scene.
XML	A general extension of HTML language that allows for independent definitions of tag codes. This allows for on-line computation and "smart agent" searching embedded into the web sheets. (extensible Markup Language)
Break-even	The volume of business required to produces a revenue stream that covers costs. Below this level the venture loses money and above it should make money. However, it should be noted that the assumption is that the business is driven by scale. Sales are considered to be of equal value.
Exchange Rates	Exchange Rates are comparative values of currencies. This is usually applied to the major foreign markets of Europe (Euro), Canada, Mexico, and Japan. However, fluctuations in rates are worldwide and need to be considered with all Global business concepts.
Inventory	The value of products and materials handled. For sales based operations it typically refers to the "finished products" inventory as represented as products on hand for delivery. In supply chain businesses, the inventory represents products available for transit. Inventories are evaluated based on rule of effective shipment and resupply. Three methods are typically used: (1) FIFO First-In, First-Out which involves costing inventory at the oldest purchased price; (2) LIFO Last-in First-out which evaluates inventory based on last purchased price, and (3) Market Value.
Transaction Costs	Transaction costs consists of all expenses incurred from marketing, sales, delivery and customer support for products.
Barriers of Entry	Barriers of Entry are difficulties imposed by new entries to a market. These barriers may be due to investment requirements, skills need, special knowledge, proprietary position or market access. It represents the security that a venture has against easy competitive entry.
Competitive Advantage	Attributes and functions of a firm or organization that gives it an advantage against competitors. These usually consist of either things that position the organization and its products well with its targeted customers or those things that provides an implied threat to its competitors.

Core Competency	Core competencies are skills that the firm either does well or must do well which delivers competitive advantage. Notice that this does not include all skills that the firm could do well at or even all those skills required to deliver competitive advantage. It is typically a small sub-set of skills that must be internalized for the long-term health of the firm or organization.
Functional Imperatives	Functional organizations are created to provide specific services. They are entrusted to may sure certain things happen and others do not. The specific items that must or must not happen constitute their functional imperatives. These can be considered quantitative things that the organization is contracted to deliver.
Proprietary Position	Proprietary position consists of those things specifically and uniquely owned by a firm. Typically these include brand names and trademarks, patents and copyrights, and trade secrets. However, market access and relationships as well as historical image can also obtain proprietary position.
Pseudo-Commodities	Pseudo-commodities are products that are distinguished exclusively by the brand name and supplier. The pseudo-commodity different from the true specialty in that a price value or premium can be associated with the brand and that all distinguishing characteristics is summarized in the brand.
Targeting	All customers are not created equal. Different firms more easily service the needs and preferences of some customers. The ability to select customers to be served constitutes the targeting process. This is usually coupled with identifying isolated or isolatable market segments.
Uniqueness	The inability to obtain a similar product or service from another supplier defines strategic uniqueness. It may be obtain by proprietary assets, barriers of entry or by position.
Caller Value	The caller value is the benefits obtained by the caller to a site. This should extend beyond just those callers making direct transactions but must include the whole process.
Complaints	Customer and caller complaints need to be handled. The old quality rule holds that only one out of seven customers who are dissatisfied will complain. This makes collection and analysis of complaint information critical for success.
Credit/Payment Operations	Getting paid is always a major issue. The distant transaction characteristics of e-marketing make this more complex and difficult. Traditionally is being handled either by requiring the use of existing credit card systems or by establishing lines of credit. However, security requirements are likely to make this process even more complex in the future with the use of electronic signatures.
Fulfillment	The process of following through a transaction from ordering through delivery and another follow-up requirements.

Frequency	"Frequency" is how often on average a targeted people see an advertisement.
Hard Products	Products that require physical delivery or on-site service.
Initial Tries	The initial try rate is computed both for web sites involving new visits and first user of products. The problem of its evaluation in terms of webs is that it relates to new browsers and computers rather than new callers. As such, any estimate of initial try rates will be an over estimate.
Life-long Customer Value	Average total anticipated revenue that can be expected from a new customer is referred to as the Life-long Customer Value. It should be noted, however, that this is not a constant. Typically, greater valued customers often are obtained first and more marginal customer follow.
Product Information Sheets	Product information sheets include product specifications, system requirements, instruction manuals and all forms of documentation. Both technical products and materials traditionally have a broad range of product information sheets. As the number of product variations become available the number and diversity of product information sheets increase.
Product Service	Product and customer service consists of all activities required to support a sale both prior to delivering and post-delivery.
Reach	"Reach" is the number of targeted people that see an advertisement or call on a web site.
Repeat Purchases	The repeat purchases are the fraction of customers that purchased more than once through a web site or other channel to the same supplier. This is considered either in terms of a single product category or the more general case of any purchases from the branded supplier.
Return Rate	The Return Rate is the fraction of initial callers that return to a web site.
Soft Products	Soft products are those offerings that can be fully or partially transmitted electronically. These obviously include computer software, games, and audio recording. However, they also include financial instruments that are traditionally held in trust for the owners and in the future video products. With the advent of electronic airline tickets, these also can be considered to be soft products since physical delivery is no longer required.
Brand	The label associated with a product. Typically this includes both the company name and package design. While "tag-lines" are not normally included as a part of the brand name, their association often takes on the same characteristics.
Business-to-Business	A general grouping of transactions that focus on the sale of products that go into other products. However, it is a general characterization of transactions that involve further negotiation. As such some "solutions business" are included as B2B though they may involve consumers.

Business-to-Consumer	A general grouping of transactions that can be considered distant single purchases. These usually involve pseudo-commodities. Simple single business transactions can, therefore, be considered B2C, though they involve sales between corporations.
Customers	The direct and indirect people involved in influencing the purchase of a product. These include the direct purchasers and the users of the product as well as consultants and down-stream users.
Market Segments	Identifiable groups of customers with common "homogeneous" characteristics for which independent marketing strategies can be development. Market segments should be viewed as a planning tool rather than an inherent characteristic of a market. Several types of non-mutually exclusive segmentation schemes may be used simultaneously in developing a successful marketing strategy.
Marketing Research	Survey research into the motivational factors influencing purchase and product use. These activities include advertising, customer satisfaction, positioning, and pricing research.
Marketing Mix	The marketing mix consists of all of the activities that can be brought to bear on the marketing of the product and service. This includes sales, promotion, communications, public affairs (press releases), and product development.
Markets	Groups of customers that constitute a general common set of characteristics usually in the form a general application of products and services. Normally, a market has common communications and transaction channels.
Purchase Process	This is the involved process by which a product is selected. Usually it is considered to be at least a two-stage process involving qualification or selection of the consideration set and then the specific selection of the brand or product.
Reverse Marketing	Seeking out suppliers is referred to as "reverse" marketing since the same generally principles applies but with the reverse objective. In reality all purchasing process involves both forward and reverse marketing. In economies, particularly in socialist systems, reverse marketing prevails.