

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 INTERNET : OVERVIEW AND DEFINITION**

The Internet is rapidly becoming one of the most important information technologies today. It is a global network of computer networks, frequently referred to as the "Net". It links the computing resources of business, government, and educational institutions using a common communication protocol, TCP/IP. (Turban, Mclean, Wetherbe, 1997). The Internet is an international network of networks that are both commercial and publicly owned. The Internet connects hundreds of thousand of different networks from nearly 200 countries around the world. More than 60 million people working in science, education, government and business organization use the Internet to exchange information or perform business transactions with other organizations around the globe. The number of Internet users is supposed to surpass 250 million by the year 2000. Major Internet capability include e-mail, Usenet newsgroups, gophers, Telnet, FTP, LISTSERV and WAIS. There are all standards and tools to retrieve and offer information.

The Internet has been around since the year 1960s, where the Defense Department conceived it as a fail safe way of messaging in case of a nuclear attack. From the 1960s until the early 1990s, the Internet was used primarily by the Defense Department and by researchers in industry and education. All that changed in the mid -1990s. The decade had been witness to a revolution created by three major developments: the birth of the World Wide Web ( WWW or web), hyperlinks and graphical browsers. The World Wide Web is at the heart of the explosion in the business use of the Net. The Web is a system with a universally accepted standards for storing, retrieving, formatting and displaying information in a networked environment (Laudon and Laudon, 1998)

## 2.2 INTERNET SURVEY ON USERS

To use the Internet as a commercial medium, it is acceptable for organization to understand the characteristics and why they made purchase on line and the goods or service they normally buy. The following are some surveys gathered from the Internet itself and should provide some insights on the market potential, buying behavior and user characteristics.

### 2.21 NUA INTERNET SURVEY

NUA Internet Surveys suggests that as of June 1998 there were 122 million Internet users in the entire world. ([www.nua.ie](http://www.nua.ie))The size of the Internet can be measured directly by the number of users or indirectly by the number of hosts or number of related products and services.

The people at NUA Internet surveys keep track of the Internet size by scanning reports of other marketing research firms. In June 1998, they posted a table (Figure 1) that includes various survey results over a 12 month period.

**Figure 1 : Internet users by region**

<b>Region</b>	<b>Number of users</b>
Africa	800,000
Asia/Pacific	19 million
Europe	24 million
Middle East	750,000
Canada and USA	70 million
South America	7.25 million
<b>World total</b>	<b>122 million(approximate)</b>

Source: [www.nua.ie](http://www.nua.ie)

2.22 NELSON MEDIA RESEARCH AND COMMERCE NET JOIN SURVEY

Nielson Media Research and Commerce Net join forces to conduct annual user surveys using a random digit dialing telephone methodology. Because of their method, the statistics they report are among the most accurate available and are used widely by both industry and government agencies. This group forecasts 132.75 million worldwide Internet users in 2000, they further suggest there will be 126 million web users. Figure 2 shows the number of North American users over the age of 26 from 1995 through 1998 based on solid research, with projections until year 2000. It seems that the Internet as an industry is still in the growth stage.

Figure 2: Internet population forecast through 2000 for North America

Millions of users	1995	1996	1997	1998	1999	2000
Internet population	21	38	59	87.75	110	132.75

Source : CommerceNet ( [www.commerce.net](http://www.commerce.net))and Nielsen Media Research.

2.23 INTERNET USER CHARACTERISTICS ( DEMOGRAPHIC SEGMENTS)

In the Internet' early years, the typical user was a young male, college educated. As the net population increases, the demographic of US users begin to look more like the mainstream population. Peter Clemente of Cyberdislogue/ findsvp, agrees that U.S Net users are looking more like the U.S population in general: Internet user in 1997 were older, were more like female, had lower income and were less educated than in 1994. Figure 3 shows demographic segments of the Internet users.

**Figure 3 : US Internet users**

Demographics	1994 Internet users	1997 Internet users	All US adults
Total adults	3.5 million	36.3 million	
<b>Age</b>			
18-29	42 %	30%	22 %
30-39	45%	54%	42%
50 and over	13 %	16%	36%
<b>Gender</b>			
Male	78%	61%	48%
Female	22 %	39%	52%
<b>Household income</b>			
Average Income	\$ 66,300	\$ 51,900	\$ 44,900
Median Income	\$ 64,000	\$ 44,200	\$ 34,000
<b>Education</b>			
College graduate	51%	42%	21%
Not college graduate	49%	58%	79%

Source : Clemente, Peter, Thomas Miller, Andrew Richardson and Craig Gugel (1998), “ Consumer Online Commerce,” Private report

**2.24 INTERNET ACTIVITIES ( BEHAVIOR SEGMENT)**

The Internet has over 320 million unique pages of content ( Lawrence and Giles, 1998) There is something for everyone here: information, entertainment, news, social meeting places and more. If marketers can form user segments based on the benefit sought, they can design products to meet those needs. In fact, marketers will use all segmentation based to define, measure and identify target markets, but benefits sought is the key driver of marketing mix strategy.



A Business week/ Harris Poll asked web users how often they do particular activities online, the responses are in Figure 4 and Figure 5 show most common on line activities and proportion of online time spent in various activities

**Figure 4 : Most common online activities**

Primary activity	Percent who do it often
Research	50 %
Education	37 %
Entertainment	31 %
News	30 %
Hobbies	18 %
Game-playing	14 %
Obtaining information on computers and software	13 %
Socializing	13 %
Investing	12 %
Shopping	1%

Source : Originally appeared on Mecklermedia Corporation's, "[www.cyberatlas.com](http://www.cyberatlas.com)"

**Figure 5: Proportion of online time spent in various activities**

Primary activity	Time Spent
Research	43 %
E-mail	34 %
Game Playing	9 %
Online magazine or news	5 %
Online banking	2 %
Two way voice	1 %
Online shopping	1%

Source : Originally appeared on Mecklermedia Corporation's, "[www.cyberatlas.com](http://www.cyberatlas.com)"

### 2.25 INTERNET ACCESS ( USER SEGMENT)

Clemente (1998) of cyberdislogue/stepped up the level of sophistication when he first split Net users into two groups: those who personally pay for their own Internet access ( 63% of all adults). He formed four segments based on both payment for access and primary reason for using the Net ( personal, business or academic) :

- Personal Interest Consumers (46%) pay for their own access and go online for personal reasons such as entertainment, sports, and local information.
- Occupational consumers (17%) also pay their own access and they use the Net mostly for business such as accessing business news and product information, doing research and conducting online banking and investing.
- Corporate Users (31%) go online at work to get business-related news and research and to download software.
- Academic user (6%) use the Internet at school or other academic institution and conduct online research or access adult education and training.

**Figure 6: indicate the US trend in home users versus work users from year 1996 with projections into year 2000 .**

Year	Home	Work	Total
1996	13 million	15 million	28 million
1997	20 million	20 million	40 million
1998	27 million	30 million	57 million
2000	42 million	60 million	102 million

Source : BancAmerica Robertson, Stephens report, " [www.computerworld.com](http://www.computerworld.com)"

### **2.3 THE INTERNET AS AN IMPORTANT BUSINESS TOOL**

The Internet is the first exciting, significant marketing tool to emerge in many years. Most companies believe that the Internet is emerging both as an extremely useful tool for business planning and also as part of a company's marketing mix. As planning tool, the Internet search and resources sites can aid any discipline by opening a high speed gateway to a wealth of information. In addition the Net is a vehicle for marketing research. The net also assists with text-based communication : one to one e-mail conversation and e-mail conferencing via newsgroups and mailing lists. In the marketing discipline, the Internet serves as distribution channel, communication medium, and fertile ground for new products. It has also lowered marketing costs and put tremendous downward prices pressure on products sold on line. Marketers use the Net for direct distribution of digital products (e.g news stories and live radio) and for electronic retailing. The Net marketing communication function includes advertising to the tune of over \$ 1 billion in 1998, public relations and sales promotion. Internet technologies have created the opportunity for a variety of innovative products for creating, delivering and reading messages as well as services such as search engines, stock trading and interactive games. (Judy Strauss, Raymond Fross1999)

The opportunities presented by the channel seem to be readily apparent : the Internet let companies build interactive relationships with customer and suppliers, and deliver new products and services at very low cost. The companies seem have to taken advantage of these opportunities are start-ups like Yahoo and Amazon.com. Internet commerce is such a new phenomenon and so much uncertain and confusing – that is difficult for manager or executive at most companies, new or old, to decide the best way to use the channel. It is even more difficult for them to estimate accurately the returns on any Internet investment they may take. (Judy Strauss, Raymond Frost,1999)

### **2.31 THE INTERNET AS SOCIAL SPACE**

The Internet is a social space where users communicate with each other via e-mail, Usenet and the Web. Users can interact in real time via chat rooms, video conferencing, Internet phone or Interactive games. These products create marketing opportunities. (Judy Strauss, Raymond Frost,1999)

### **2.32 THE INTERNET AS MARKETING TOOL**

With the introduction of Internet as a new business tool, marketers use the Internet to gather data for marketing planning. The net has become an integral piece of the marketing mix, spawning new products and serving as both a digital distribution channel and electronic storefront. The Net is also a strong medium for communication with target audiences, it allows two way communication. People are connecting to the Net at a phenomenal rate, and the number of unique web pages now numbers 320 million. The Internet is a medium for communication and electronic commerce whose times has come. (Judy Strauss, Raymond Frost,1999)

### **2.33 THE INTERNET AS FINANCIAL INVESTMENT TOOL**

Financial services is now undergoing a period of unprecedented change- new products, new entrants, mergers and acquisitions and now another new delivery channel: The Internet. The performance attributes of the Internet are related to both the needs of consumers and the nature of financial services products. In the United States, most banks, unit trusts companies, insurance companies are using the World Wide Web (WWW) as a new channel for advertising with real transactions to take place. The use of new information technologies create very low cost electronic delivery channels may provide financial sectors with a way to become more efficient and effective. ( David Birch, Hyperion System Ltd, UK)

In the United States, there are about 30 million computer online and on the World Wide Web and many are owned by investors. Most investors are computer savvy and very independent to manage their financial affairs. As the financial cyberspace revolution accelerates in the next few years, millions of the individual investors will be rapidly tooling up for on line and on the net transaction – investing, buying, selling, trading, exchanging even online banking. ( David, Birch, Hyperion System Ltd, UK)

#### **2.34 SURVEY ON THE BUSIENSS USE OF INTERNET TO THE MUTUAL FUND COMPANIES IN THE UNITED STATES**

An increasing number of US mutual fund companies are gearing up for what they expect will be a surge in mutual fund trading through personal computers. It is expected that about 60 percent of mutual fund interaction with investors will be done through the Internet in 10 years. American century investments is estimating that 20 percent of its investors will use the Internet as their main way to trade mutual fund shares by the year 2001.

A new survey from Charles Schwab reveals that 72 percent of its customer plan to buy or sell mutual funds over the year 2000 and 92 percent of these plan to do so online. Over the last six months in 1999, the study found that almost 90 percent or those that had bought or sold mutual fund online, while 80 percent used to buy or sell stocks. Almost all those surveyed agreed with the statement that the net had made mutual trading easier. Additionally, 92 percent of the respondents expressed interest in receiving trade confirmation and mutual fund reports via e-mail. 42 percent of them plan to increase the amount of money they invest into mutual funds and half of the respondents plan to maintain their current mutual fund investing levels.

According to Jeff Lynons, Senior Vice President of Mutual funds at Charles Schwab, almost half of the company's mutual fund trades are transacted online, up from 20 percent one year ago. There is every indication that number will continue to grow as investors discover the great resources online mutual fund investing can offer.

Charles Schwab & Co, Inc, serves 6.1 million active accounts with \$ 564 billion in customer assets. Schwab currently has 2.5 million active online accounts with \$ 219 billion in customer assets. Schwab provides a full service investing experience to customer through a multi-dimensional offering of the Internet, 310 branch offices, speed recognition and touch-tone telephone technologies, multilingual and international technologies and direct access to professionals day or night.

By 2002, securities firms will spent an estimate USD 6.4 million on Internet products, representing 37 percent of their total IT budget, according to the Tower Group. This will incorporate spending on the Internet, extranets and Intranets. Technology budgets have also grown considerably over the past number of years, rising from USD 11.51 billion in 1996 to USD 18.4 billion in 1998. By 2002 the total spend on technology is expected to reach USD24.2 billion

## **2.4 LINKAGES TO INTERNET**

### **2.41 WORLD WIDE WEB**

The World Wide is a hypertext based information service. It provides access to multimedia and complex documents and databases. The Web is one of the most effective methods of providing information because of its visual impact and advances features. The Web can be used as a complete presentation medium for a companies' corporate information or information on all its products and services.

The Web provides a means of communication that is more intimate relationship between buyer and seller. This complete transaction can be made through a personal computer. The buyer merely looks up a particular shop in an electronic mall, then the customer can browse through the site picking and choosing what they interested in acquiring. Often there is additional information which customers can obtain through the same Web site. After the buyer has found what they want, they can place an order through the computer via e-mail or using a provided telephone

number. Many companies are now making it easy for customers to find their Web site. ( Paul Herbig, Texas, USA)

## **2.42 ELECTRONIC MAIL**

E-mail is the latest paradigm in communication that facilitates message transfer with other computers independent of the Internet. E-mail can send the same documents all over the world for the price of a local telephone call ( Saslow , 1997). Marketers are able to use e-mail to communicate with companies and customers at a relatively inexpensive cost. Mailing lists are used much more effectively and efficiently, allowing greater penetration into target markets.

E-mail is used increasingly by organization wanting to build relationships and turn prospective customers into clients. Organization use it to facilitate communication between employees and between offices, to communicate with customers and suppliers, and to keep in touch with the outside world. It is by far the most effective way to send information electronically.

## **2.43 NEWSGROUP**

A newsgroup is the cyberspace version of a bulletin board. Newsgroup are playing a major role in the business industry where people can attain faster and up-to-date information for strategic planning. Newsgroup like CNN online, have maintained a high demand from customers that want to be the edge of news headlines.

## **2.5 BUSINESS USES OF THE INTERNET**

**Most of the companies use the Internet to perform four major commercial functions:**

- Market themselves both locally and globally.
- Gather requisite information by searching other web-sites or gather consumer feedback

- Provide customer service and support.
- Conduct electronic transaction

### **2.51 MARKETING AND ADVERTISING**

The Internet provides a powerful platform for corporations with home pages to market and advertise their product and services. It provides a labor efficient and cost effective way of distributing information almost instantaneously to millions of potential clients in global markets. For example, the hotels are the most active users of home pages for international marketing and advertising. Their home pages generally present relevant information on the facilities, services and rates available for potential travelers, together with attractive graphic and pictures.

Most of the unit trust companies in the United States use their home page to provide their corporate profile, prospectus, fund's performance, fund prices and promote its individual business division. The home page also has a hot line for users to dial in queries and requests for updates company news releases. Investors can send their suggestions and comments through a feedback page. ( The Straits Time, 1995) .

### **2.52 MARKETING RESEARCH AND INFORMATION GATHERING**

Marketers use data to assist in decision making, and the Internet has facilitated this process tremendously. Data help marketers understand competitors, customers, the economic environment, political and legal factors, technological forces and other factors in the macro-environment affecting an organization. Secondary data on the Net are often current than data published in hard copy, and they are easy, inexpensive and quick to access. Marketing planners use the Net to collect primary data about consumers. Through online e-mail and web surveys, online experiments, focus groups and observations of net user discussions, marketers learn about both current and prospective customers (Judy Strauss, Raymond Frost, 1999).

In the United States, unit trust companies use the Internet to conduct marketing research, as well as to source for business related information to improve their



products and services. Examples are gathering information on new technologies, best business practices, and industry regulatory standards. Being information-rich, the World Wide Web (WWW) provides easy access to software, communications networks worldwide, and files of text, data and images. Unit trust companies can make use of the Internet to track and monitor competitors. Scanning competitors' home pages help companies to track competitors product and service offerings. Unit trust companies can also obtain feedback from their customers regarding their products and services offered, and even on the set up of their home pages. They can solicit opinions for improving the designs of their home pages, which is important if the unit trusts companies want to enhance their commercial potential.

### **2.53 CUSTOMER SERVICE AND SUPPORT**

Customer support is extremely important for creating customer satisfaction and building business revenues. Providing relevant information on and links to useful Web site constitutes one important customer service function. Customers can establish online correspondence with companies via their corporate home pages. For example, unit trust companies encourage their customers to provide feedback on problems and queries via the Internet. This will also enable the firms to determine which of the frequency asked questions should be put on their home pages to better attend to their customer queries.

The Internet can be used, to perform various customer service and support functions. Customer support information, including updates on new products and services and on corporate developments can be accessed anytime by thousands of current and potential investors. It appears to offer a time and cost efficient approach to providing better customer service.

### **2.54 ELECTRONIC TRANSACTION**

Electronic commerce is an emerging concept that describes the buying and selling of products, service and information via computer networks, including the Internet

(Turban, Mclean, Wetherbe, 1997). While electronic transactional activities including finding products, negotiating, placing orders and making payments for products.

By the middle of 1998, about 4 million people in the United States were using Internet to trade stocks, bonds, and other financial instruments. Several discount brokerage houses initiated extensive online stock trading, notably Charles Schwab, in 1995. Full service brokerage companies such as Merrill Lynch followed in 1998. By 1997, were more than 60 brokerage firms offering online trading , led by PC Financial Networks. The volume of trading has increased significantly in the last three years.

Most investors conclude that unit trusts are the "perfect" investment vehicle for them in the fact that the funds are professionally managed. It will minimize the risk of the loss and maximize the return on their investment. Over the last few years, unit trust investments in the United States shave tripled to more than \$ 3 million in assets. Millions of investors want in on this bonanza, and they are hungry for guidance on how to choose, analyze, track and trade unit trusts on line, using resources on the Internet and other online venues. (Pual B. Farrell)

**2.6 NATURE OF BUSINESS ON THE INTERNET**

Although the commercial market of the Internet might be small today, it is likely to grow tremendously in the future. The nature of Internet commerce is likely to take shape several key factors, including:

**2.61 THE CONSUMER MARKET IS DIFFERENT**

A consensus on the Internet's reach and a sketchy profile of the "typical" user have emerged (USA today, 1997). One widely accepted estimate is that 17 percent of the US population is online, translating into 35 million, the figures indicate that approximately 32 percent of users are women and 15 percent are black. It appears that almost half of all Net users are 30-49 years of age, but again medium user age

estimate vary considerably. This translates into sophisticated, well educated, adventuresome consumers with money to spend.

### **2.62 NET USERS WANT CONTROL**

Net users initiate their own contacts, control information flow, and seek out marketers and products rather than vice versa. Because of their experience online, they have been there, challenging marketers creativity and ingenuity in gaining and holding their attention. They want messages custom-made for their own individual needs, focusing specially on the benefits they seek.

### **2.63 COMMUNICATION IS DIRECT**

Questions can be asked and immediately answered. Feedback can be garnered; demand can be created and fulfilled. The Internet offers the ultimate in relationship marketing, since companies can develop consumer lists from Web site visits, communicate regularly with customers either through web site updates or individually targeted e-mail messages, and empower product. A real sense of communicate can be built around products, just as it has been around other newsgroup issues ( Kawasaki, 1996)

### **2.64 AUTHENTICITY IS A MUST**

Since consumers cannot see or touch actual products and thus evaluate quality and benefits first hand, brand and merchant authenticity are significant as means to verify product value and price appropriateness. Consumers will look for well-known branded products and respected merchants to assuage their fears of deception. Widely known merchants will do well to cultivate their reputation for quality and reliability.

### **2.65 COMPETITION IS OPEN**

Strategic, including price are out there for all to see. It is easy to visit the competitors' web-site to investigate their new products, prices and promotional

campaigns. Open strategy information may lead to prices wars, and it will certainly emphasize, and complicate, competitors abilities to differentiate themselves.

## **2.66 SECURITY AS CONCERN**

Security continues to be one of the most significant obstacles to online commerce, as consumers and business alike worry about privacy :

- The Internet is still not regarded as secure enough to conduct corporate business ( Lohr, 1995)
- The Internet has great potential for marketing and great potential for abuse (MCGeehan, 1996)

Even though security on the Net is now more a psychological than a financial or technological issue ( Weber, 1996), nervous computer user must be reassured than their privacy is protects. Marketers are implementing protection measures, such as encryption, firewalls, passwords and coding mechanism, as well as publicizing their own written security policies.

## **2.7 BENEFITS FOR THE USE OF INTERNET IN BUSINESS**

Managers can't afford to avoid thinking about the impact of Internet commerce on their business. At the very least, they need to understand the opportunities available to them and recognize how their companies may be vulnerable if rivals seize those opportunities first. Shikhar Ghost, founder of the CEO of open market, an Internet commerce software company in Cambridge (Massachusetts) says the Internet presents six district types of opportunities:

1. Companies are giving customers just about the same level of service through the Internet that can directly from a salesperson. Through the Internet companies can establish a direct link to customers to complete transaction or trade information easily.

2. The technology lets companies bypass others in the value chain. For instance, a unit trust company could bypass the investment information to investors.
3. Companies can use the Internet to develop and deliver new products and services for new customers.
4. Companies can provide valuable new services inexpensively.
5. Companies are using new Internet technologies to personalize interactions with their customers and build customers loyalty.
6. A company could conceivably use the Internet to become the dominant player in the electronic channel of a specific industry or segment, controlling access to customers and setting new business rules.

## **2.8 PROBLEMS WITH THE USERS OF THE INTERNET FOR BUSINESS**

### **2.81 PROBLEMS WITH LOCATING DESIRED INFORMATION**

It is not surprising that some companies claimed to have problems in locating the information they desired given the uncontrolled evolution of the Internet. As there is no overriding structure and control over information on the Internet, much precious time can be wasted in gathering information. This may negate the productivity benefits that may be derived from its use.

### **2.82 RISING COST OF UTILIZING THE INTERNET**

The cost of utilizing the Internet for business include subscription fees, design and development expenses, cost of maintenance and time access costs. Smaller firms that have limited resources, may be discouraged from using the Internet for business. However, the competition among the ISP will help reduce the subscription fees and time-access costs ( The Straits Time. 1997) . Internet charges have already begun to fall, the lower prices of hardware and software, and the introduction of the network computer, are likely to encourage more business use. Lower cost also increases the subscriber base, extending the number of potential consumers which businesses can reach through the Internet.

Many companies have found that the investments from Internet did not materialize because of unexpected costs. The most difficult to evaluate and control are the hidden costs that accompany a decentralized client/server system. Considerable time must be spent on such tasks as network maintenance, data backup, technical problem solving and hardware, software, and software update installations. The largest cost component for both large and small client/server is operations staff. Internet technology on the whole tends to be less expensive to implement and use than traditional information systems technology. However, Internet computing has some hidden costs of which managers should be aware, the largest being the cost of setting up TCP/IP networks.

### **2.83 SECURITY PROBLEMS**

The issue of security is a major barrier in the use of Internet for electronic transactions. Jefry Hamzah, general manager of Canadasia Cognitional , commended " Security is our utmost concern, and we do not want our customers to transmit their credit cards details on the Internet ( The Straits Times, 1996). Mastercard had expressly discourages the use of credit cards to buy goods and services over the Internet because it is a public network and the flow of credit information is vulnerable to computer Internet because it is a public network and the flow of credit information is vulnerable to computer hackers.

Security is of paramount importance in organization in which information systems make extensive use of networks. Networks present end users, hackers with many points of access and opportunities to steal or modify data in networks. Internet bases systems are even more vulnerable because the Internet was designed to be virtually open to everyone. Many people have the skill and technology to intercept and spy on streams of electronic information as it flows through the Internet and all other open networks. Any information, including e-mail as its flows through the Net, passes through many computer systems before it reaches its destination. It can be monitored, captured, and stored at any of these points along the route. Valuable

data that might be intercepted include marketing plans, product development and pricing data might be of value to competition.

#### **2.84 RAPID ENVIRONMENTAL CHANGES AND TECHNOLOGICAL ADVANCES**

The rapid environmental changes and technological advances related to the Internet are two major concerns among companies. Some are facing difficulties in trying to keep up with the developments, while others are concerned with such technological deficiencies as low network speeds and the low availability or capacity.

#### **2.9 FACTORS DETERMINING THE USE OF INTERNET IN BUSINESS**

The increasing popularity of the Internet, as a business vehicle in general and advertising medium in particular, is due to its size and future growth prospects, its attractive demographics, and its potential to provide an efficient channel for advertising, marketing and even direct distribution of certain goods and information services (Hoffman et al, 1996)

The environment in which the organization operates in can play an important role in influencing the use of Internet. Companies that currently do not want to participate in Internet commerce may be forced by competitors or customers (Shikhar, 1998).

Institutional factors could be the factors which may influence the adoption and design of Internet system. These factors are factors internal to the organization which include annual sales revenue, size of the organization, values, norms, and vital interests that govern matters of strategic importance to the organization. Additionally, environmental factors are another set of factors that are external to the organization that influence the adoption of Internet. Some external environmental factors are rising costs of labor or other resources, the competitive actions of other organizations and changes in government regulations. In general, these can be thought of as environmental constraints.

The apparent new market potential and benefits can enhance the perception of the organization toward the Internet. As a result, positive perception can lead to adoption and usage of Internet. The adoption of an Internet is largely dependent on the perception of the adopters toward the rapid environmental changes and technologies advances related to the Internet . If the perception is positive of favorable the chances is that the Internet will be adopted. In contrast, an unfavorable attitude will most likely result in not adopting the Internet. Thus, the extent of Internet using by the organisation will be influenced by the perception of the uses towards the Internet.

## **2.10 INTERNET IN ASIA COUNTRIES**

In Asia, the commercial use of Internet is a much more recent phenomenon. Following the commercialization of the Internet in the USA, many Asian countries have begun promoting the use of Internet by setting up state run Internet services providers (ISPs) and implementing policies to encourage businesses to go on line.

Asian countries is also starting to realize the importance of Internet and the impact of WWW to their businesses. According to the recent survey by IDC (CNN fu.1998). Asian countries are quick to adopt Internet with 75 % of them now hosting sites. IDC predict that Internet users in the Asia Pacific region, which reached 13 million in 1998, will increase to 57 million by 2003 .

### **2.10.1 THE INTERNET IN MALAYSIA**

The Internet usage is growing very rapidly in Malaysia in the recent years. The Internet is well-known as "Jaring" in Malaysia. The growth is generally attributed to the awareness of Malaysia regarding the usefulness of the Information Superhighway, the coverage from the mass media and strong support from the government. The commitment from the country leaders and government proven by the development of MSC ( Multimedia Super Corridor) have a direct impact on the promoting the growth of Internet in the nation.



The Malaysian Government is providing strong support for the diffusion of the Internet in both the private and public sectors, the Internet may serve as the infrastructure for local companies to look globally for economic success. It may help companies to competitive in terms of reducing costs and increasing productivity.

IDC research expects the Internet users in Malaysia are projected to rise rapidly to 2.3 million by 2003 . In terms of Internet commerce revenue is expected to grow from \$ 50 million in year 1999 to \$ 1,573 billion in Year 2003. Figure 7 shows the estimates of Internet commerce revenue in Malaysia from 1997 to 1999 based on research, with projections until 2003.

**Figure 7 : Estimates of Internet commerce revenue in Malaysia, year 1997 to 2003**

Year	Internet Commerce Revenue (Us \$ million)
1997	6 million
1998	18 million
1999	50 million
2000	127 million
2001	309 million
2002	704 million
2003	1,573 billion

*Source: IDC*

**2.10.2 BUSINESS USE OF THE INTERNET TO UNIT TRUST INDUSTRY IN MALAYSIA**

A unit trust is a collective investment scheme where money from many investors is pooled together for collective investments, and is invested towards a specified goal as stated in the investment objective of fund. Unit trust is a general name which may be further classified according to its objective such as growth, income and balance trusts, each of which can be reclassified according to sectors such as property trust and equity trusts. Irrespective of their specific objective, the general objective of a

unit trusts is to pursue investments which generate the highest return per unit of risk or lowest risk per unit of return. The advantages of unit trust are the small capital outlay required for investment, benefits of risk diversification, security of capital, access to the services of professional investment managers, liquid and readily marketable units as the fund managers are obligated to repurchase the units. The investor may be individual, companies or institutions which invest funds in the trust with the hope of generating returns in the form of dividends and capital gains.

The regulation of the unit trust industry in Malaysia is the responsibility of the Securities Commission. The Securities Commission is empowered to regulate, which means it offers guidelines and rules on the operation of the unit trust industry, as well as having powers of prosecution and penalty where breaches are known to occur. Its powers are wide ranging, covering the unit trust management company, the unit trust scheme, the fund managers, the trustees and the persons dealing in unit trust.

The business use of Internet is slowly momentum and Malaysian unit trust companies are determined to enter the cyber age. The Internet could be an effective marketing tool, many unit trust companies in Malaysia have begun to recognize the opportunities opened up by Internet. They see Internet as a means to among others improve customer service and support, reduce costs, do marketing research and optimize resources, it offers certain advantage that cannot be matched by conventional methods. Most of the unit trust companies agree that Internet services will be the mode in which unit trust industry will take place in the 21<sup>st</sup> century.

The web site could be an effective marketing tool, instead of relying on the agents and spending precious advertising dollars on traditional media, unit trust companies could make the web site a financial portal where investors can use Internet to plan their finances and search for information. Not only unit trust companies cut cost, investors will benefit as well. Net savvy investors could just a mouse click, browse

prospectus, compare funds of different companies, check out fund prices, switch funds on the net and post online queries. If the regulators permit from Security Commission, there may even buy and sell funds on the Internet in future. It is a win-win situation for both unit trust companies and investors.

Perception of the attributes of the Internet are largely positive for Malaysian unit trust companies. In a move to provide prompt response and timely information in the fast moving financial market, many unit trust companies have created new space in their informative Internet homepage for unit holders and unit the consultants. There are unit trust companies such as Kuala Lumpur Mutual Fund Bhd, Pacific Mutual Fund Bhd, BHLB Pacific Trust Management Bhd, Multi purpose Unit Trust Management Bhd and Mayban Management Bhd. These unit trust companies encourage unit holders e-mail comments from the revamped web site, make a requisition on leaflets produced in house, download various funds prospectuses, gain access to timely information and updates on the stock market. These are part of the company's ongoing program to cement and strengthen working relationship with their investors and consultants. They make it a point to act quickly on constructive suggestion in order to sharpen management focus as they face in the new millennium. (Smart Investor, issue 105)

The Securities Commission (unit trust scheme) regulations 1996 prescribe the manner in which unit trust advertisement, released statements and reports may be issued. Among others, the regulators permit the issuance of advertisements and promotional materials that have been issued with the written consent of the Securities Commission (SC). The Securities Commission has promulgated the guidelines for the assistance of all issuers of unit trust advertisements and promotional materials to aid and promote the speedy and efficient processing of applications.

The potential for growth in the Malaysian unit trust market is considerable. The industry is still young with vast amount of room for growth in funds under

management expected to occur over the next five to ten years. The industry in Malaysia currently accounts for 7.73% of NAV to KLSE market capitalization ( See appendix 3). This represents an opportunity for unit trusts to increase and sustain their growth patterns in the coming years.

## **2.11 ELECTRONIC COMMERCE ON THE BUSINESSES**

The Internet is rapidly becoming the technology of choice for electronic commerce because it offers businesses an even easier way to link with other companies or individuals at very low cost, with the power to facilitate and increase sales of a growing range of consumer goods and service, both online and off, as well as to optimize customer relationships. Electronic commerce also provides direct and speedy access to networks and markets that can extend worldwide, yet has the ability to enable individuals to interact one to one basis.

### **2.11.1 ELECTRONIC COMMERCE IN ASIA**

According to Asia Pacific Economy Cooperation (APEC), E-commerce is considered as one of the most dynamic drivers of economic growth in the world today, and it will remain so in the foreseeable future. Japan is one of the first countries in Asia to look at electronic commerce as a viable business initiatives. E-commerce worldwide is predicted to represent as much as US \$ 400 billion in volume in four years time and that over the next 20 years, as much as 20 percent of all personal consumption expenditure and business to business expenditure will take place over the Internet.

Malaysia companies, like their counterparts across Asia, will have to embrace the Internet or see how competitors erode their strategies position. With the government taking a supportive role, the electronic commerce industry is well positioned to thrive. In terms of the projected electronic commerce revenue by 2002, Japan is ahead of the pack, while Australia and Korea are second and third ranking. Next are China, Hong Kong, Taiwan and Singapore. Malaysia ranks eighth in Asia and is ahead of Thailand and Indonesia, according to BCG research . Figure 8 is a list of

estimates electronic commerce revenue submitted by International data corporation, 1999.

**Figure 8: The electronic commerce revenue ( in millions)–rapid growth throughout Asia and Pacific region by year,**

Country	1997	1998	2002 ( Projected)
Australia	\$ 79.32	\$ 403.25	\$4,974.30
China	1.63	7.71	1,872.90
Hong Kong	14.72	59.74	1,621.45
Japan	437.05	1,720.00	26,030.00
India	0.63	2.96	454.46
Indonesia	0.43	1.25	167.05
Korea	14.45	56.35	2,000.41
Malaysia	3.34	13.09	<del>646.86</del>
New Zealand	9.93	43.29	546.85
Philippines	1.68	6.88	383.66
Singapore	8.34	35.18	898.91
Taiwan	9.36	44.23	1,278.77
Thailand	2.44	9.11	506.01

*Source : International data corporation*

## 2.11.2 ELECTRONIC COMMERCE IN THE CAPITAL MARKET

Electronic commerce is now still new in Malaysia, the Malaysian government's initiative to establish and promote the Multimedia Super Corridor (MSC), which has paved the way for electronic commerce to be the channel for conducting commercial transaction in the near future. The capital market has not remained unaffected by this growing trend. A number of initiatives currently being implemented include Electronic commerce applications to support primary market activities such as initial public offering of shares and the filling of applications for the issuance of securities, including the filling of prospectuses.

In the secondary market, trading, clearing and settlement procedures are continuously being improved to take full advantage of the new trend. One of the area being developed in clearing and settlement is the improvements of the payment system for transactions. The application of electronic commerce in the secondary market includes information dissemination, brokerage, fund management and advisory services.

Electronic commerce brings new challenges and opportunities to the marketplace by providing a greater competitors among businesses, changing the role and function of market intermediaries, accelerating market globalization, introducing new market players and creating an informed society. It is expected to increase the level of competition among the level of competition among market institutions and market participants, including broking companies, fund managers, investment advisers and individual traders. These market participants would be using technology that is available to support and enhance their existing business functions by lowering costs, improving efficiency, allowing greater access to the marketplace, and providing a wide range of products to their customers. The application of electronic commerce would also introduce new players in the capital market, the role of other players may increase in importance as they have the edge in providing market and financial information and analysis to investors who have direct access to such services.