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Perceptions of Web Site Design Characteristics: A Malaysian/Australian Comparison

by

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ABSTRACT

The study compared the perceptions of Malaysians, representing Asian culture, and Australians, representing Western culture, for four Web design characteristics (atmospherics, news stories, signs, products and services), as part of the Integrated Internet Marketing model. Under controlled laboratory conditions, two groupings of thirty subjects evaluated eight Web sites in the retail and services sectors located equally in Malaysia and Australia. This study hypothesised that the predominant culture would not be generalised to another culture.

Significant differences found for Web design characteristics were typically for one site only and not across all sites. In other words, consistent differences did not eventuate. This appears to indicate that members of both groups are citizens of the Web's global village in which consumer behaviours and values are converging.

There were some specific perceptual differences between Australians and Malaysians of Web design characteristics and their impact on the overall effectiveness of Web sites. For example, differences for the Web design characteristic *products and services* were clearly perceived for Dewsons Supermarket (DS) and Netcard Station (NS). The graphical presentation on the DS Web site appears to encourage Australians to examine the products and services in more depth. Products were presented in bright colours and photographic views. On the other hand, for the NS Web site, products were represented in descriptive, technical words, which appealed more to Malaysians.

The study found that Malaysians would emphasise the *atmospherics* for seeking to obtain an indication of integration (tolerance, non-competitiveness) by examining virtual presence. Australians give emphasis to articulate *news stories* as both *products and services* and *news stories* attracted inter-group significant differences in Café St. Tropez Restaurant and Netcard Station sites.

For the extent to which the Web is used to locate products, services or information, there was no impact of these on the way Malaysians perceived the Web design characteristics and their impact on the overall effectiveness of Web sites. On the other hand, the extent to which the Web was used to locate products, services or information impacted on the way Australians perceived the Web design characteristics and the impact of these on the overall effectiveness of Web sites.

The study makes recommendations for Australian Web designers, for example, that they should give emphasis to graphical and photographic pictures for attracting Australian Web users. On the other hand, Malaysians Web designers should, for example, employ technical words in order to attract Malaysian Web users.

The study recognises the strength and the limitations of the controlled laboratory method of research, which are in the main that results can not easily be generalised and that procedures may appear to be artificial. Suggestions for further study are offered.

DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously written by another person except where due reference is made in the text.

Signature_____

Date 3/7/1999

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CHAPTER 1: INTRODUCTION

This chapter presents the background, purpose and significance of the study, as well as the research questions, definition of terms and organisation of the study.

The Background Of The Study

The Internet is having a far reaching impact on the use of Information Technology (IT), the way we communicate, and the way we will do business. The opportunity that the technology offers can be used effectively to increase business profit. Although the technology is present, there are some aspects that should be taken into account internationally, among these, the effective use of the Internet across international borders.

People around the world have spent their time on the Internet searching their needs and wants. They are willing to use their time and cost to get on the Internet in order to have as much information as they can. They will pursue their wants and needs in their own time by doing business electronically. On the other hand, the cultural background, influences the business itself. This cultural background differs from nation to nation, therefore it should be considered thoroughly for the impacts of opportunities that the Internet offers to business.

Internet is a media communication that can and will be used to do business. It is happening now and it will happen to all businesses to be competitive in the era of Cyberspace. Cyberspace or Cyberia is defined in the following (Burns, 1998, p. 3):

- A world that is both everywhere and nowhere.
- A world that all may enter without privilege or prejudice accorded by race, economic power, military forces, or station of birth.
- A world where anyone, anywhere may express his or her beliefs.
- A world where legal concepts of property, expression, identity, movement and context do not apply.
- A world of no matter.

The Internet has become an important medium for organisations desiring to interact with a wide range of stakeholders. It has the potential to market products and services to prospective customers, to communicate information to a global community, to provide an electronic forum of communications, and to process business transactions such as orders and payments (Nath et al, 1998). These activities have come to be known collectively as Internet or Electronic Commerce (EC)—the process of conducting commerce electronically over a variety of networks that constitute the Internet.

Electronic business or commerce is not a new technology but it is a new way of doing business. An analysis of capitalism supports the advent of electronic commerce (Schumpeter, 1943 referenced in Watson & Zinkhan, 1997, p. 2).

> "The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumer goods, the new methods of production or transportation, the new markets, the new form of individual organisation that capitalism creates".

The new consumer good is information. Currently consumers have and expect to use a few keystrokes and mouse clicks to access information on a diversity of topics. For example, the visitor of Amazon.com, a Web bookstore, can now receive recommendations on books to read based on that person's personal reading preferences.

The new method of transportation is the Internet, which supports the electronic delivery of information, software and entertainment. For example, a software program now can be downloaded directly via the Internet without waiting for a package of CD-ROM from the local software store.

The new market is global. National boundaries are ignored countless times everyday by Internet data packets. For example, the United Parcel System (UPS) company can be accessed on the Internet throughout the world with any computer.
The virtual organisation (Davidow and Malone, 1992 referenced in Watson and Zinkhan, 1997) is *the new organisational structure.* Collaborative networks, using integrated computer and communications technologies, enable corporations to link thousands of people together.

Electronic commerce applications have four major tasks (to be explained in Chapter 2) that can be performed by interactive Web sites (Kalakota & Whinston, 1996):

- Attracting new customers via marketing and advertising.
- Serving existing customers via customer support and support function.
- Developing new markets and distribution channels for existing products.

- Developing new information-based products.

This study is focusing on on-line marketing, which aims to attract new customers to revisit the Web sites and do business over the Internet.

The Purpose of The Study

The purpose of the study is to determine Asian/Western perceptual differences of Web design characteristics and their effectiveness, through controlled laboratory experimentation. In other words, it determines the differences in perceptions of Web design characteristics (e.g. atmospherics, news stories, signs, and products and services)[1] and their impact on the overall effectiveness of Web sites. The study measures perception differences by comparing Malaysian and Australian Web users.

The study will answer several research questions in order to provide a focus. The main question is to establish the presence, absence and the form taken by the design characteristics identified by the Integrated Internet Marketing (I^2M) model.[2] This will be done by evaluating and analysing Australian and Malaysian Web sites. The secondary question is to establish differences in the perception of Australian and Malaysian 'Web users' of the design characteristics and the impact of these on the overall effectiveness of the selected Web sites.

[1] These terms are explained in Chapter 2.
[2] The I^2M model is presented in Chapter 2.

The Significance Of The Study

The significance of this study is related to the findings of the study. The findings of this study should assist Australian organisations to improve the marketing of their products and services in Malaysia and, conversely, Malaysian organisations to improve the marketing of their products and services in Australia, on the Internet.

Organisation Of The Study

This paper is divided into six chapters. Chapter one is an introduction of what this study is experimenting including the background, purpose, and significance. Chapter two explains the literature review about Internet development and its concept, the World Wide Web (WWW) development and definition, EC definition and applications, culture, security, model of the study, and the Integrated Internet Marketing model. Chapter three presents the research methodology that describes the formulation of hypotheses, selection of Web sites, development of questionnaire, pilot testing of questionnaire, selection of participants, and research procedure. Chapter four presents data analysis that describes the demographics data; validity, reliability and distribution of data; as well as descriptive statistics comprising tables and graphics; and hypotheses testing. Chapter five presents discussion of findings. Chapter six presents conclusions, limitations, guidelines for Malaysian and Australian Web designers, and some directions for future research.

CHAPTER 2: LITERATURE REVIEW

The literature review section presents the Internet development, demographics and its concept map. This section also presents the definition of the World Wide Web (WWW) and its architecture, the EC definition and its applications as well as advantages and disadvantages, security, culture, model of the study, and the I^2M model.

Internet Development

The Internet began in the late 1960s as a project of the US Department of Defense's Advanced Research Projects Administration (DARPA). The idea was to have an improved method of communication with all the universities and private companies who were involved with the military network (Kjaer, 1996). DARPA wanted to link the Department of Defense, defense research centres (government laboratories and universities), and the Department's contractors (OECD, 1997). The US military had a strategic reason why they wanted to establish this network, as a result which in 1969 the ARPANET network was initiated. They wanted to build a decentralised network, without any form of central computers or cables that would be secure in its functioning. Even an atom bomb could not stop it. If one part of the network was damaged, the rest of the network could still work because communications simply route themselves around the damaged area. There were also other requirements that the network must achieve to qualify.

- The optimisation of transmission speed, which the network should maintain in the low-speed telephone lines during that time, by obtaining the maximum use of the available bandwidth.
- The need for a system that allows universal access by a wide variety of computers, operating systems, local networks and other different communication mediums.
- The need for high-quality communication to prevent distortion, which could corrupt the transmitted data or scientific files.
- The need to have the simple protocol so it would be easily understood by all users.

Internet Concept

Internet is a collection of local area networks that spread out and link as a communication medium throughout the world. Figure 2.1 provides an overview of what the Internet is. It is very simply a group of computers that speak the same language and have agreed to talk to one another (Rittenhouse, 1996). The co-ordination between groups of computers is organised by the Internet Engineering Task Force (IETF), which is responsible for technical matters regarding protocols and the like, and the Internet Network Information Centre (INTERNIC), which keeps track of domain and host names.

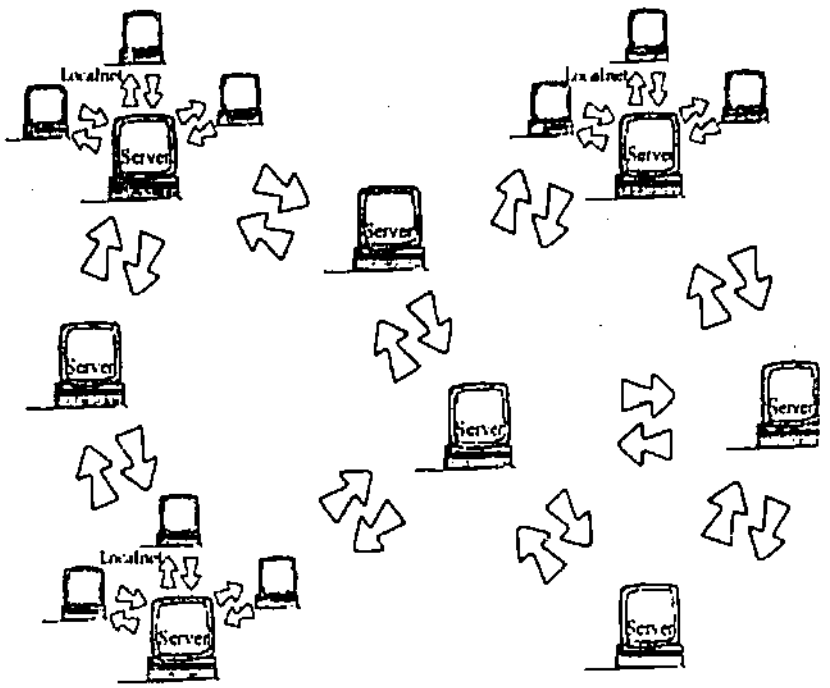

Figure 2.1 Internet (Kjaer, 1996)

Figure 2.1 shows that the Internet is actually not one net, but tens of thousands of nets consisting of computers which are connected to each other all over the world. It is a "network of networks" (Turlington, 1995, p. 3). Figure 2.2 illustrates the concept of the Internet.

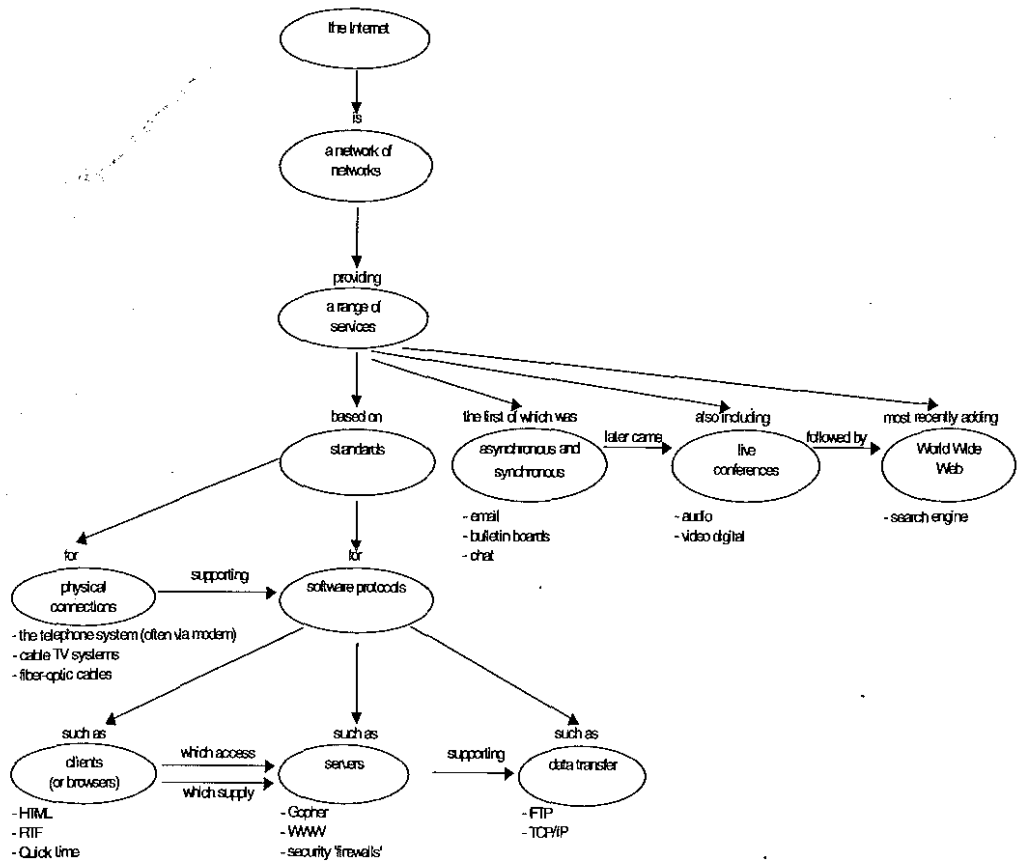

Figure 2.2 Internet concept (Mok, 1996)

The Internet is a network of networks that provides a range of services (Figure 2.2) in the following (Watson et al, 1997; Mok, 1996):

- Asynchronous and synchronous text (e.g. one-to-one: electronic mail; one-to-many: bulletin board; real-time text-based discussion: chat).
- Live conferences (e.g. one-to-one or many-to-many: audio and digital video streaming).
- The World Wide Web (e.g. search engines)

Those services are based on standards, which every Internet user must obtain. Physical connection (e.g. the telephone system via modem, cable TV system, and fiber-optic cables) is one of the standards required. Another one is the software protocols,

which is supported by the physical connection. Software protocols comprise clients (or browsers), servers, and data transfer.

In the context of computing, clients refer to computers that run software which connect them to a network. Client software allows users access to files stored on servers (e.g. hypertext markup language, rich text format (RTF), quick time). Servers are computers that run software for connecting to networks and controlling large hard disks—for the purpose of storing and sharing files (e.g. WWW, Gopher, security firewalls). This process is called serving (Mok, 1996). Data transfer includes File Transfer Protocol (FTP), Transmission Control Protocol/Internet Protocol (TCP/IP), and transaction security (encryption). In this study the WWW will be the main use of the Internet.

Internet Demographics

Estimation of the Internet demographics are based upon the amount of computers and users that are linked to the Internet, countries that are connected, and the uses made of the Internet (Fink, 1998). It is very difficult or even impossible to determine exactly how large the Internet is and at which rate it grows. However various studies have been done to provide Internet data and they are valid as estimates because the numbers are fluctuating. Therefore on the basis of the rapid changes of the Internet, below are some data that have been published.

- The Network Wizard site (www.nw.com) attempts to discover every host by querying the domain system for the name assigned to every possible Internet Protocol (IP) address, which have been converted into names. The July 1998

survey indicated that there were 36.7 million Internet hosts in existence compared with 19.5 million in July 1997.

- In Malaysia, the July 1997 survey indicated that there were 25,200 computer hosts in existence compared with 8,541 in July 1996. In addition in April 1993, there were 99 computer hosts in this country (Network Wizard) as shown in Table 2.1.

Table 2.1 Numbers of Internet Host Computer in Malaysia and Australia (Network Wizard)

	Malaysia	Australia
Apr-93	99	73321
Jul-93	498	82157
Oct-93	737	97840
Jan-94	435	89672
Jul-94	1322	127514
Oct-94	1241	133886
Jan-95	1606	164466
Jul-95	1087	207426
Jan-96	4194	309562
Jul-96	8541	397460
Jan-97	25200	514760

- In Australia, the July 1997 survey found 514,760 computer hosts in existence compared with 397, 460 in July 1996 (Table 2.1). In April 1993, there were 73,321 computer hosts in Australia (Network Wizard). Figure 2.3 illustrates the growth of the Internet host computer in Malaysia and Australia.[3]

[3] This may have an impact of the study outcome. In other words are there lesser numbers of Malaysian Web users and/or experience?. This will be discussed in Chapter 5.

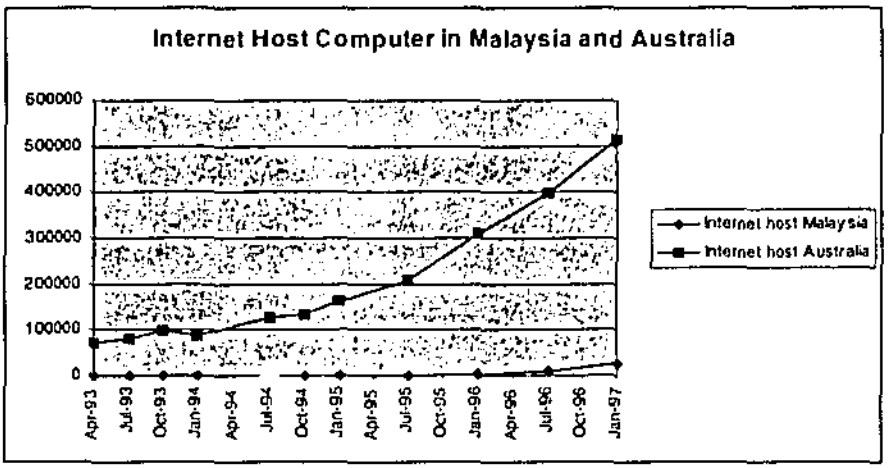

Figure 2.3 Internet Host Computer in Malaysia and Australia (April 1993 – January 1997)

The evolution of Internet demand is driven by two factors: a dramatic increase in the number of users and a qualitative change in the manner in which the Internet is used (OECD, 1997). Although the increase is estimated, the Internet has experienced explosive growth. The examples of this growth for the USA are:

- Between August 1981 and May 1982, the average increase was 2.5 new hosts every month.
- Between October 1988 and January 1989, the average was 6,000 new hosts every month.
- Between July 1995 and January 1996, the average increase was about 470,000 new hosts a month.

There are other sources of Internet surveys, which can be used as estimates Among others:

- Web server on the Internet (www.netcraft.com).

- Growth and usage of the Internet and Web (www.mit.edu/people/mkgray/net/).
- Internet Trends (www.genmagic.com).

World Wide Web (WWW)

The European Practical Physical Laboratory (CERN) first proposed the WWW in 1989, a high-energy physics laboratory in Switzerland. CERN then developed the first WWW prototype in 1990. Initially it provided the means to share paper and data between physicists all over the world. It was a breakthrough for researchers because at that time they had to use many different computer systems to access all the information needed. The WWW solved this problem by introducing the principle of 'Universal Readership' which implies that networked information should be accessible from any type of computer in any country, with one easy-to-use program (Turlington, 1995).

The WWW is part of the Internet technology but serves a different purpose. The Internet is a 'network of computers' whilst WWW is a 'network of information'. In other words, the WWW is the universe of network-accessible information, an embodiment of human knowledge (Lee, 1996). It is called a Web because it has no top and has many entry and exit points. The Web also has a body of software, and a set of protocols and conventions. The Web provides an easy way for anyone with a connection to the Internet to view documents incorporating images and other data types (Mok, 1996). It uses hypertext and multimedia techniques to make the Web easy for anyone to roam or browse as illustrated in Figure 2.4.

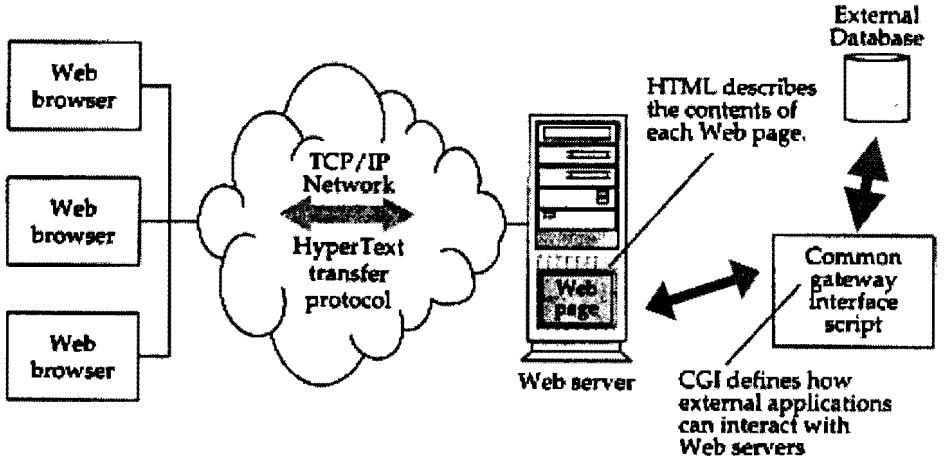

Figure 2.4 The Web Architecture (Kalakota & Whinston, 1996)

The Web architecture can be explained briefly by the components that are involved in getting information over the Internet. The user interface for the Web is called a Web Browser or Client. Netscape, Microsoft Explorer, and Mosaic are typical Web browsers in use. They provide a graphical user interface for accessing and displaying content. Transmission Control Protocol/Internet Protocol (TCP/IP) is the agreed 'language' of the Internet. HyperText transfer protocol (HTTP) provides the language that allows servers and browsers to communicate. Web servers are the combination of software and hardware that store documents and other content. Hypertext Markup Language (HTML) is a representation language for hypertext documents containing text, list boxes, and graphics information. Common gateway interface (CGI) provides the ability to reach out beyond the Web servers to other computing environments such as corporate databases.

In the first phase, the Web provided static information sharing (e.g. technical papers, manuals, and software) that had previously been prepared 'off-line' and loaded

onto a Web server. The second phase of the Web was in response to the demand to work interactively, such as filling out a form in an on-line mode (e.g. forms for searches, surveys, and registrations). In the third phase, Web sites are becoming dynamic with the emergence of the 'Java' scripting language. A dynamic Web site (Southwest Data Systems, 1996) allows Web users to interface directly with your database and custom applications (e.g. add, delete, turn-on or turn-off, and modify catalogues).

Electronic Commerce

The advent of EC began in the 1970s with the introduction of electronic funds transfer (EFT) between banks using electronic networks (Fink, 1998). During that time the technology was extended to include electronic fund transfer at point of sale (EFTPOS) in grocery stores and retail shops. In the late 1970s and early 1980s, electronic messaging systems emerged in the form of electronic data interchange (EDI) and e-mail. These technologies eliminated or substantially reduced the need for paperwork since transactions were recorded and transmitted in electronic form.

In the mid 1980s the Internet emerged and gave rise to the concepts of 'cyberspace' or the 'global village'. People started to communicate and share information with each other on networks throughout the world. EC became a force with the advent of the WWW on the Internet in the 1990s. The WWW and the Internet have enabled buyers and sellers to conduct business from their desktop computers. Buyers browse multimedia catalogues stored on Web sites, establish the best prices and place orders for goods. Sellers respond to bids, schedule production and coordinate supply.

EC is not a new technology; it is just a new way of doing business. It is the use of networked computers to improve business (AeBN, 1998). EC uses computers and telecommunications technologies, particularly on an inter-enterprise basis, to support trading in goods and services (Speaking Electronic Commerce, 1996). The essence of EC is doing business on the Internet. The technologies are varied and include electronic data interchange (EDI), e-mail, facsimile transfer, electronic catalogues, directory systems, and the WWW. In this study the focus will be on the WWW. It is important, that businesses understand what industries they are in and what applications are suitable for EC before embarking on this strategy (Kalakota & Whinston, 1996).

Electronic Commerce Development in Malaysia

EC development in Malaysia has shown a tremendous increase in value. A research conducted by the International Data Corporation (IDC), an Australian research company, estimated that by the year 2001 there would be US$ 1 billion electronic commerce transactions increase from US$ 4 million in 1997, and US$ 95 million in 1999 (Legard, 1998).

According to the IDC, EC growth occurs due to a rapid rise in the number of PCs and an increase of the proportion of PCs hooked up to the Internet each year. PC ownership in Malaysia is growing around 25 percent each year. In the report of IDC, the installed PCs will have reached 3.2 million by 2001 compared with 1.3 million in 1998. The proportion of those systems attached to the Internet will grow from less than 20 percent today to around 70 percent at the end of 2001. In addition with the development of EC market, Malaysian companies could improve customer service, reduce costs, optimise resources, and increase their customer base.

Electronic Commerce Development in Australia

In Australia, the EC development has been increasing dramatically. Business-related Internet sites had doubled in January 1998 compared with its market in the late 1996. There were 54,800 business sites reported by the stats.Electronic Commerce. As the first statistical reporter on business on the Internet in Australia, the stats.Electronic Commerce reported that, in the 1997 calendar year, there were A$ 16 trillion made from 1.5 billion electronic transactions (Marzabani et al, 1998; Smith, 1998).

The stats.Electronic Commerce investigates the growth of Internet commerce from its formative stage and provides a valuable service to Australian business and government policy makers. As the first statistical-based reporter giving a clear picture of electronic commerce in Australia, there are some highlights as follows:

- In February 1998, A$1.6 trillion worth of transactions took place.
- Out of some 1.6 million Internet users in Australia at the start of 1998, 1.09 million were commercial Internet users.
- 11% of all businesses have a Web presence.
- On-line purchasing volumes by Australians have more than tripled over the past 18 months, reaching a total of A$55 million.
- Over 80% of firms predominantly use Internet access for e-mail and business research. EC was cited as an application by less than 5% of enterprises with Internet access.
- 35% of businesses with a web presence claimed the site was significant to their business.

- Less than 20% of enterprises with web sites believe they have achieved a return on investment greater than 10% of their investment.
- Service sectors, in particular banking, communications and education, have been early adopters of Internet technologies.
- By the end of 1998, it is expected that most of the top 1000 businesses in Australia will have an on-line presence.
- Nearly A$4 million was spent on on-line advertising in 1997 and the total spend is expected to triple in 1998.
- More than 1000 companies can be classified as Web developers in Australia.

Applications

EC has been extensively used to market products and services through interactive Web sites. Business applications include advertising, marketing, sales, and customer services. EC can be profitably used in industries that engage in information transfer with customers including financial services, retailing, electronic publishing, and edutainment. Within these industries there are four major tasks that can be performed by interactive Web sites (Kalakota & Whinston, 1996):

- Attracting new customers via marketing and advertising.
- Servicing existing customers via customer support and support function.
- Developing new markets and distribution channels for existing products.
- Developing new information-based products.

Marketing and Advertising

Attracting new customers via marketing on the Web is mainly achieved through brand-name management, disseminating product catalogues and sales information, and product announcements. Advertisers should design the Web site carefully and in a manner to ensure that whoever browses the site will spend more time on it.

Customer Service and Support

The Web site can process information queries that customer service representative used to handle. It broadly covers customer-handling tasks that include (Kalakota & Whinston, 1996):

- A new distribution channel for software, software patches, and support information. For example, Seattle-based Online Interactive (OLI) made a pact with Microsoft to distribute the software maker's products via the Internet.
- Customer interaction and query capability. For example, customers of Federal Express and United Parcel Service (UPS) can use their Web sites to track and check location and status of their packages.
- New avenues for customer relationships. For example, Wells Fargo Bank provides a service where a customer can check his/her personal bank account balances and recent transactions.

Developing New Markets and Distributed Channels

For a firm that already has brand name recognition, an operational infrastructure, and customer relationships, the Web can be used to develop new markets and distribution channels. By doing this, market opportunities will be increased and choices can be made as to which distribution channel is best for. For example, Time Warner created a popular Web site called 'Pathfinder' that contains their popular magazines Time, Money, and Sports Illustrated.

Developing New Online Products/Services

Comprehensive information about products and services can be placed and retrieved from the Web. A good example of a Web-based information site is 'Switchboard' (www.switchboard.com). This Web site provides information about people and businesses in respect of telephone numbers, addresses, e-mail addresses, names, and service of the company, etc.

Advantages and Disadvantages

The advantages of EC according to Forcht and Wex (1996) and Year-X (1996) are as follows:

- Millions people all over the world can view information on the worldwide Internet.
- Customers can search the products of a company directly without having to go to the store and waste a lot of time.

- Electronic commerce replaces inefficient and costly manual and paper-based operations.
- The opportunity is provided to rethink and simplify the information flows within and between organisations.
- Information flows can be used in new and dynamic ways.

Disadvantages of EC according to Forcht and Wex (1996) and Borenstein (1996) are as follows:

- Unresolved privacy implementation might hinder customers from purchasing items on the Net.
- Surfing of employees on the Net in company time or working hours that will decrease productivity.
- Some software put an arbitrarily low maximum size on FTP file transfers resulting in a truncated file when downloading software.
- The occurrence of connectivity glitch, causing a complete or partial Internet outage.
- Catastrophic failures such as a hardware failure on the seller's site.
- Subtle incompatibilities and protocol violations between buyer and seller software.

Issues

Issues associated with EC are generally perceived to be in the security, legal and cultural domains. Shapiro (1995) identified four security requirements when implementing EC:

- *Data/document integrity.* A Company must be sure that its data have not been changed during and after transmission.
- *Confidentiality of data.* A Company should respect and protect the information received from customers.
- *Authenticity.* A Company must be sure that messages they receive from the Internet are from the people they claim to be.
- *Non-repudiation.* The sender cannot deny sending a document, nor the recipient denies receiving it.

Unless we know who we are dealing with, we should be cautious with whom we transact (Tan et al, 1996). Internet business relationships have no geographic boundaries. Business transactions may therefore be subject to foreign intellectual property rights (e.g. trade marks) when advertising goods and services under a particular trademark on a Web site. The company is potentially using that trademark in all countries where the Web site is viewed (Pattison, 1997). Therefore, we must be cautious when putting proprietary information on the Internet, and different legal regulations and impacts should be addressed when designing a Web site.

Another important issue is the variation in cultures across the world and its impact on Web uses. This will be discussed in the culture section to follow.

Model Of Domain

The following diagram refers to prior discussions and the focus that will be placed on the research domain.

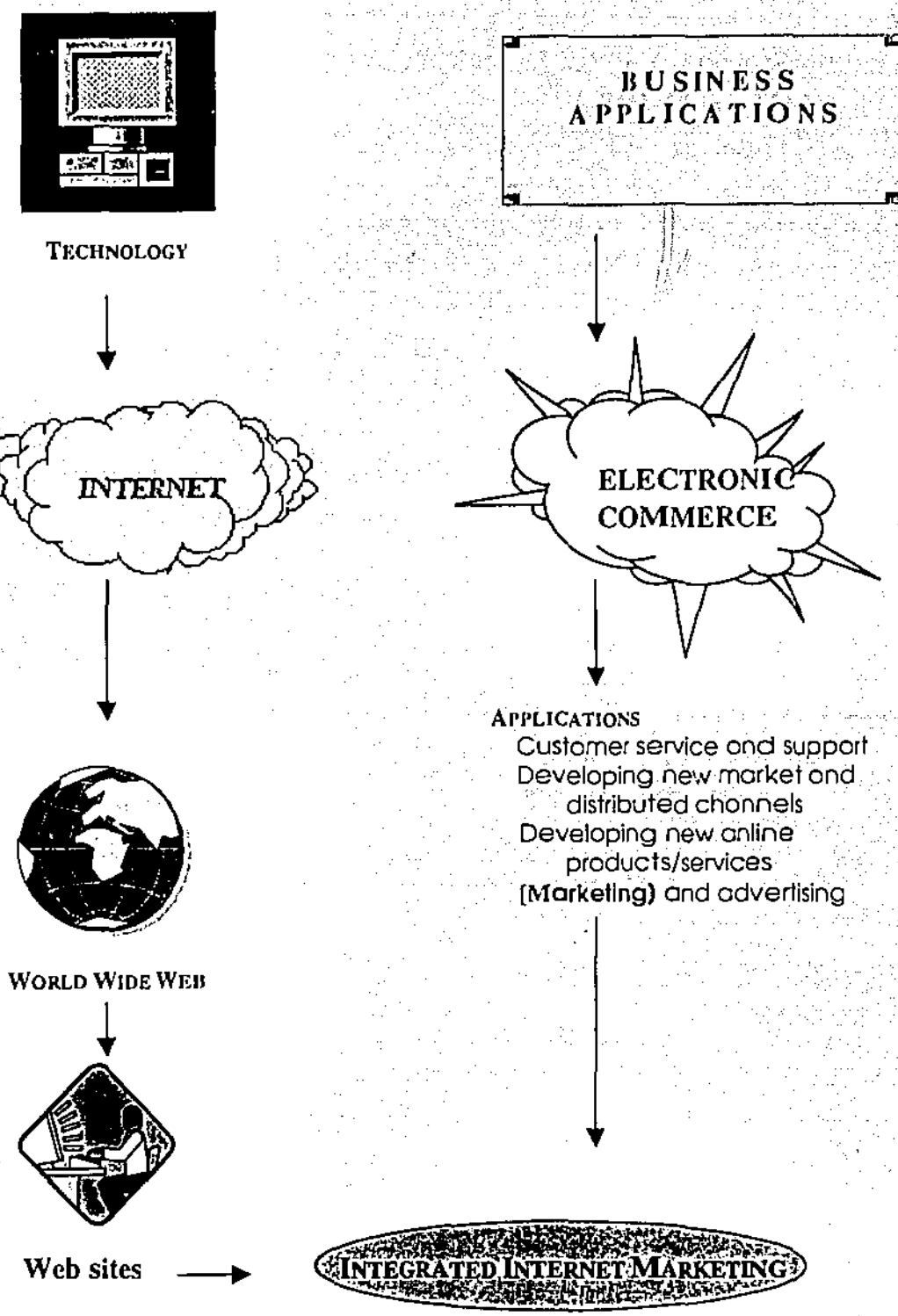

Figure 2.5 Model of domain

The model of domain (Figure 2.5) reflects Internet technology that provides a range of services among others, the use of WWW. On the WWW, there are many Web sites, which reflect the activities to be studied. In the business application, the advent of

the WWW gave rise to EC, which means conducting businesses via computer desktop from home or offices.

The enforced EC can be obtained through servicing and supporting customers, developing new market and distributed channels, developing new on-line products and services, and marketing and advertising. The research for this study focuses on the latter EC's applications (i.e. marketing only) to determine differences in perceptions of Australian and Malaysian Web users of the design characteristics and the impact of these identified by the Integrated Internet Marketing model.

Culture

Culture influences the way of life of Nations and people across the world. Culture can be regarded as the collective programming of the mind, the interactive aggregate of common characteristics that influence a human's group response to the environment (Hofstede, 1980, referenced in Raaij, 1997). Culture distinguishes the members of one group or category of people from another (Hofstede, 1991). In essence, government, legal systems, educational systems, industrial relations systems, family structures, religious organisations, settlement patterns, literature and architecture reflect traditions and common ways of thinking which are rooted in the prevalent culture; these are not generalisable to other culture (Grover et al, 1994). For example, Asian people have the following characteristics according to Robinson (1996) and Goodfellow (1997):

- Respect for authority. For example, the managing director can give commands, exercise control, and scrutinise departmental managers without conforming to other formal chains of command.
- Desire for harmony. Asians prefer to deal with reliable people and their own relatives. They trust more in people.
- Reduced competitiveness. They prefer to work with a skilled person who is a relative.
- Conservatism. Asians consume more time by dealing with many people; this generates unproductivity. They are reluctant to talk directly to the 'big boss'.
- Tolerance of others. Negotiations take a lot longer in Asia.

By contrast, the way of life of Australians is more difficult to establish since there is no norm for 'correct' behaviour in Australia. The country lacks a clearly defined social and conversational map. Australian people have the characteristics as follows (Lewis, 1996; Goodfellow, 1997):

- Egalitarian ethos. This places great emphasis on the individual and the equality of people.
- Hard, fast and up front in their business dealings.
- Preoccupation with the outcome when negotiating a deal, contract, an account or order.
- Trust more in the organisations rather than in the people.
- Cynicism, both in business and everyday affairs. Australian will not easily kowtow to those in position of power, wealth or influence.

Value differences also occur between Western and Asian. Asian values are described in the following (Chinese Culture Connection, 1987 referenced in Reisinger et al, 1998).

- Integration (tolerance, harmony with others, non-competitiveness, and intimate friendships).
- Confucian work dynamism (ordering relationships, a sense of shame, and protecting face).
- Human heartedness (patience, courtesy, and sense of righteousness).
- Moral discipline (moderating, keeping oneself disinterested and pure, having few desires and prudence).

Western values are described in the following (Feather, 1970, 1972, 1975, 1980, 1986, & Rim, 1970 referenced in Reisinger et al, 1998).

- Achievement (success, activity, aggressiveness, and humanitarism).
- Affiliation (love, self-esteem, self-definition, and self-fulfillment).
- Authority (democracy, independence, and equality).

Western (i.e. Australian) people are low context, which stresses explicit verbal communication and clear expressions of intention. All information is expected to be what is directly and immediately communicated (e.g. in words and images). An attitude that may be reflected in the use of the phrase 'cut to the chase'. Asian (i.e. Malaysian) people are high context, which stresses implicit nonverbal communication. They pay more attention to surrounding details and content (e.g. physical location, ambiance or

apparel). An attitude that places a great importance on the relative status of the participants in a communication (Sellin & Winters, 1998; Hall, 1959, 1976 referenced in Reisinger et al, 1998).

In addition to the characteristics of people, the dominant culture of a country is also important. The dominant culture of a country relates to basic assumptions and history, as well as national, ethnic, religious and social values. The dominant culture permeates the other levels of culture, such as organisational (corporate identity), consumer, and material (e.g. products, advertising) (Raaij, 1997). Culture is interactive influencing language, communication, products, and behaviour pattern. Thus, the culture of business, including that of electronic commerce, is characterised over time by the total of these factors.

In summary, evidence of cultural difference can be (Raaij, 1997; Aiex, 1995; Sturges, 1995; Hofstede, 1991):

- *Signs/symbols.* Any object, act, event, gestures, pictures, quality, words, or relation that serves to convey meaning, usually representing another things such as styles, products, brands, and advertisement.
- *Communication.* The formal and informal interaction among members of an organisation that can reinforce, elaborate on, and realistically clarify and qualify the impact of values, signs, and rituals, such as verbal and visual messages.
- *Rituals.* The activities through which organisational beliefs are celebrated and reinforced including its norms, social, values, religions, and ideology.

- *Behaviours*. The way 'things are done around here' including, management's and employees' behaviour.

Integrated Internet Marketing

As indicated, the objective of this research is to examine interactive Web site designs for online marketing. The model to be used for this purpose is the Integrated Internet Marketing (I^2M) Model which provides for the co-ordination of Internet facilities to market products and services, shape stakeholders' attitudes, and establish or maintain a corporate image (Watson & Zinkhan, 1997). The model allows organisations to use a variety of different Web sites to market their products. It is shown in Figure 2.6.

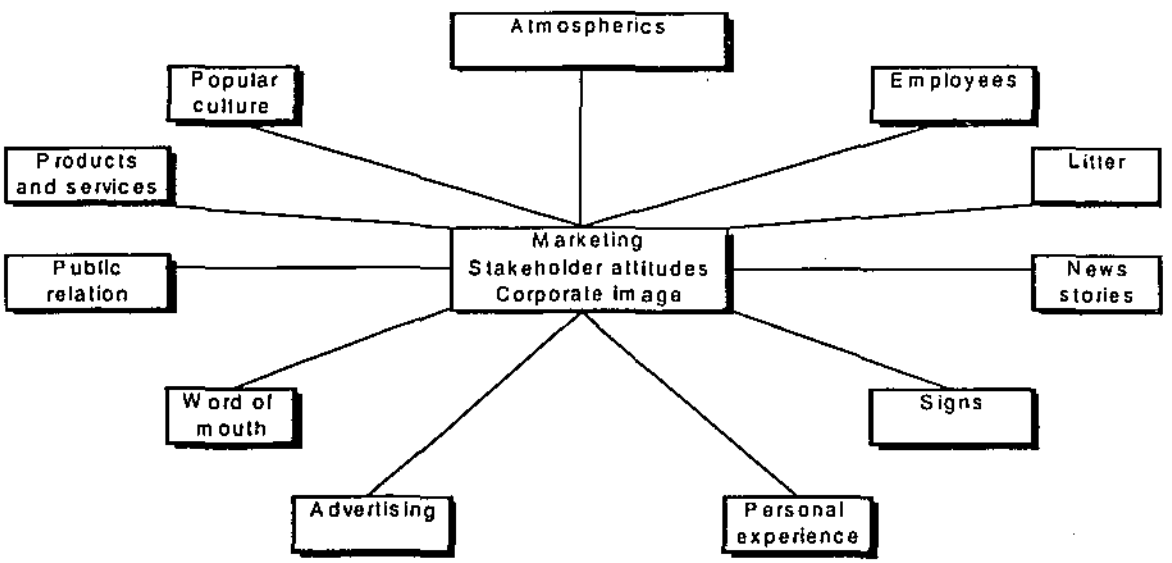

Figure 2.6 The Integrated Internet Marketing model (Watson & Zinkhan, 1997)

Atmospherics

The Web provides an opportunity for customers to experience an organisation's atmospherics or ambience without actually being there. For example, Alberto's night club (www.albertos.com/albertos/) in Mountain View, California stimulates interest by creating an aura of excitement and action.

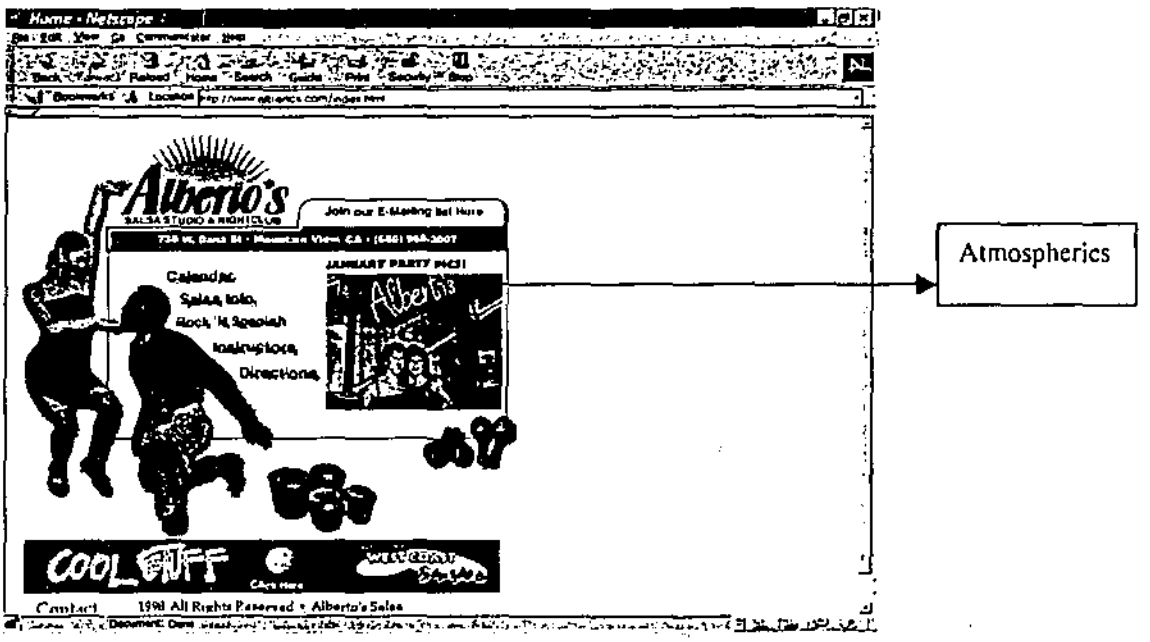

Figure 2.7 Atmospherics of Albertos nightclub

Employees

The use of e-mail and the Web should lead to smooth internal communication and consistent external communication with customers, suppliers, shareholders, and other parties.

Litter

An advertisement arriving along with other E-mail may be perceived by some readers as highly offensive electronic pollution. For example, an Arizona lawyer who posted an advertisement to millions of Internet users aroused considerable anger.

News stories

Traditionally, organisations have relied on intermediaries (e.g. news media and advertisement) to transmit their stories. Naturally, the use of intermediaries can pose problems. For example, news stories not reported as visualised can effect a distorted and unintended message to the customers who receive it.

Signs

Most organisations prominently display their logos and other identifying signs on their buildings, packaging, and other visual points of customer contact. Animation on the Web catches the eye and makes the visitor more aware of the organisation's logo.

Personal experiences

Customers often prefer to try products before buying, and some software providers take advantage of this preference. For example, Qualcomm (www.qualcomm.com) widely distribute a freeware version of the E-mail package,

Eudora. Customers who take in the freeware version can easily upgrade to a commercial version.

Advertising

Hyperlink is a key feature of the Web that permits a reader to jump to another Web site by clicking on a trail link. Prentice-Hall, as a publisher of information systems textbooks, pays ISWorld Net (www.isworld.org/isworld.html) to display its logo. This logo provides an entry point to Prentice-Hall's Web resources for IS academics and professionals.

Word of mouth

Bad news travels extremely fast on the Internet via newsgroups and lists. For example, when Intel discovered there was a flaw in its Pentium chip from a message on the Internet, millions of Intel's customers bombarded the company with E-mail (Uzumeri & Snyder, 1996 referenced in Watson & Zinkhan, 1997). Corporations are now monitoring newsgroups and lists that discuss their products and those of their competitors.

Public relation

The Web can be an effective public relations tool. The company can immediately transmit its message to stakeholders without relying on intermediaries, such as newspapers and television, to redistribute messages. For example, when IBM

announced its take-over bid for Lotus, it used the Internet to reach its stakeholders, media, and Lotus employees.

Products and services

The Web provides several advantages for distributing products and services to customers. First, the Web is 24-hour, global service. Regardless of geographic location, all customers with Web access can use the service. Second, it's low cost. Customers help themselves to the information they want. Third, customers can tailor their search to meet their needs, providing the supplier has a rich, structured Web site. Fourth, information can be easily updated as required. There are no out-of-date brochures.

Popular culture

Firms have discovered that popular culture—movies, songs, and live performances—can be used to publicise their goods. As the Internet evolves we may see clearly labelled products appear in virtual network games.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter presents formulation of hypotheses, selection of Web sites and their justification, development of questionnaire, pilot testing of questionnaire, selection of participants and the research procedure. The purpose of this chapter is to explain how the research was done from selecting Web sites, developing questionnaires, and conducting the laboratory experimentation. It also discusses the validity and reliability of questionnaires in terms of content and construct validity as well as inter-item correlation. Some ethical considerations and the data procedure are then discussed.

Hypotheses Formulation

The research will examine inter group and intra group differences in the evaluation of the Web design characteristics and the impact of these on the overall effectiveness, that is, achieving the marketing objective of Web sites. Inter group measures refer to the differences between the Australian group and the Malaysian group of participants while intra group differences examine differences within each of the groups. Below is a discussion of how the hypotheses were developed.

Web Design Characteristics Differences

As discussed in the literature review section, Australians have shown to be hard, fast and upfront in their business dealings (Lewis, 1996; Robinson, 1996; Goodfellow, 1997). They trust more in the organisation than in the people and are pre-occupied with the outcome when negotiating a deal or an order. Malaysians on the other hand trust

more in people than in organisation and therefore place more emphasis on the negotiation process than on the outcome.

It is predicted that there will be significant differences in the way the two groups will feel about the design characteristics of the Web sites that will be presented to them. Australians are expected to place less importance on the characteristics of atmospherics than Malaysians because of their more 'upfront' behaviour. On the other hand, Australians will want to look at other pages of the Web site in order to get the best business 'outcome' when acquiring products and services. For Malaysians, 'signs' are important and it is therefore predicted that they will give greater recognition to Web site logos than Australians will. Similarly, Malaysians are expected to be more interested in news stories on Web sites than Australians because of their emphasis on 'negotiation', during which they take into account as much information as possible.

The study, therefore, frames the following hypotheses for the research:

Hypothesis 1: The Malaysian group will have a stronger feeling about the virtual presence (atmospherics) on Web sites than the Australian group.

Hypothesis 2: The Malaysian group will have a stronger feeling about the presence of recent news (news stories) on Web sites than the Australian group.

Hypothesis 3: The Malaysian group will have a stronger feeling about the impact of the logos (signs) on Web sites than the Australian group.

Hypothesis 4: The Australian group will perceive a stronger encouragement to look at other pages because of the display of products and services on Web sites than the Malaysian group.

Web Design Effectiveness Differences

In respect of the impact of the design characteristics on the overall effectiveness of the Web site, it is predicted that Malaysian will place the greater emphasis on atmospherics as they seek to establish a feeling for the Web site. For example, they would seek to obtain an indication of integration (tolerance, non-competitiveness) according to Chinese Culture Connection (1987) referenced in Reisinger et al (1998) by examining the virtual presence. Australians would judge Web site effectiveness primarily by examining the display of products and services in order to achieve a successful business outcome. The above predictions are reflected in the following hypotheses:

Hypothesis 5: The Malaysian group will perceive the impact of atmospherics significantly higher than the impact of other design characteristics, on the overall effectiveness of Web sites.

Hypothesis 6: The Australian group will perceive the impact of the display of products and services significantly higher than the impact of the other design characteristics, on the overall effectiveness of Web sites.

Hypothesis 7: The Malaysian group will perceive the impact of atmospherics on the overall effectiveness of Web sites significantly higher than the Australian group.

Hypothesis 8: The Australian group will perceive the impact of the display products and services on the overall effectiveness of Web sites significantly higher than the Malaysian group.

Moderating Effect of Web Usage

As part of the study, participants will be asked to indicate the extent to which they use the Web to locate products, services and information. It is predicted that Web usage will have no significant impact on the way in which either the Malaysian group or the Australian group perceives design characteristics.

Hypothesis 9: The extent to which the Web is used to locate products, services and information has no impact on the way the Malaysian and the Australian groups perceive Web design characteristics and their impact on the overall effectiveness of Web sites.

Selection Of Web Sites

The selection of Web sites was conducted by browsing and searching through the Internet. This study also used Web sites directories (i.e. Internet.au and Web guides magazines, and World Wide Web directory) to look for various addresses.

There were fourteen Web sites chosen for a preliminary selection. This study justified eight out of fourteen Web sites for investigation. The fourteen Web sites are as follows:

- Dewsons Supermarket (DS)
- Value-I-Store (VIS)
- Netcard Station (NS)
- Ernst & Young:
  - Australia, EY(A)
  - Malaysia, EY(M)
- Shell:
  - Australia (SA)
  - Malaysia (SM)
- Television company:
  - Australia, Channel nine (CN)
  - Malaysia, TV3
- RAC, Insurance
- Greater Union Cinemas
- Café St Tropez Restaurant (CSTR)
- Amway:
  - Australia, A(A)
  - Malaysia, A(M)

This research selected material (Web sites) based on the types of industry and presence of operations. There are two types of industries: retails and services. The presence of operations means the organisations are present in Australia and Malaysia.

Retailing is the business activity of selling goods or services to the final consumers (Lewison, 1989). In addition retailing is all activities in selling goods or

services to the final consumers for personal reasons, or non-business use (Stoddard, 1996). For example, assume you buy an incandescent light to use in your bedroom. In this case, the lighting company has made a retail sale. On the other hand, a home builder walks into the same store and buys the same light for use in a house, which they are building; the lighting company has not made a retail sale, because the light was not sold to the final consumer (user) of the product. Therefore a sale can be considered as retail if the product is used for personal use not for a business use. If it's for a business use then it will be called a business sale not a retail sale.

Services are difficult to define and there are various definitions (Lovelock et al, 1998):

- A service is any act or performance that one party offers an intangible dominant to another and it does not result in the ownership of anything. Its production may or may not be tied to physical product.
- Services are economic activities that provide time, place and form utility, while bringing about a change in, or for, the recipient of the service.

Examples of service organisations are airlines, banking, insurance, telecommunication, hotel chains, freight transportation, business and technical consulting. It also includes small businesses such as restaurant, laundries, taxis, travel agents, optometrist, and similar.

As part of this research, eight Web sites out of fourteen were justified using the highest number meeting the criteria selection. Subjective criteria were given to each

Web site and rated them 1 as weak, 2 as medium, and 3 as strong impression of the I^2M characteristics, as illustrated in Table 3.1.

Table 3.1 Justification of Web sites

Web Sites no.	Characteristics				Total	Remarks
	Atmospherics	News Stories	Signs	Products & Services		
1	3	2	3	3	11	S (Strong) = 3 M (Medium) = 2 W (Weak) = 1
2	1	3	3	3	10	
3	3	3	3	3	12	
4a/b	2	3	2	3	10	
5a/b	1	2	3	3	9	
6a/b	1	3	3	3	10	
7	3	3	3	2	11	
8	3	3	3	3	12	
9	3	3	3	3	12	
10a/b	3	3	2	3	11	

Note:
Web site 1: Dewsons Supermarket (www.dewsons.com.au)
Web site 2: Value-I-Store (www.vis.com.my)
Web site 3: Netcard Station (www.netcard.com.my)
Web site 4a: Ernst & Young Australia (www.ey.com.au/home/frame.htm)
Web site 4b: Ernst & Young Malaysia(www.eyi.com/malaysia)
Web site 5a: Shell Australia (www.shell.com.au)
Web site 5b: Shell Malaysia (www.shell.com.my)
Web site 6a: Television company Australia (www.ninemsn.com.au)
Web site 6b: Television company Malaysia, TV3 (www.tv3.com.my)
Web site 7: RAC (www.rac.com.au)
Web site 8: Greater Union Cinemas (www.greaterunion.com.au)
Web site 9: Café St Tropez restaurant (www.cafesttropez.com.au)
Web site 10a: Amway Australia (www.Amwayglobalvillage.com/australia)
Web site 10b: Amway Malaysia (www.Amwayglobalvillage.com/malaysia)

After giving subjective ratings, based on the four elements of the I^2M, eight Web sites were chosen and effectively used for investigation, as illustrated in Table 3.2.

Table 3.2 Criteria Matrix

Industry

Presence of operations	Retail	Service
Presence in Australia, not in Malaysia (Group1)	Dewsons Supermarket	Café St Tropez restaurant
Presence in Malaysia, not in Australia (Group2)	Virtual shopping	NetCard Station
Presence in Both countries (Group3)	Amway	Ernst & Young

(Effective 1 June 1998)

The presence of operations describes an organisation, which is present in Australia, but it is absent in Malaysia (group1); present in Malaysia, but it is absent in Australia (group2); and they are present in both countries (group3).

Dewsons Supermarket

Dewsons Supermarket (DS) is an Australian exclusive supermarket that is located in western part of the continent. DS is owned by Australians and provides information about: what retail goods are available for sale in the store; what policies apply to ordering goods electronically; how you pay the bill; and whom you should contact to get more information or make a claim.

The objective of this organisation is to provide a new and simple way to shop for grocery needs from the comfort of your own home or office as shown in Figure 3.1.

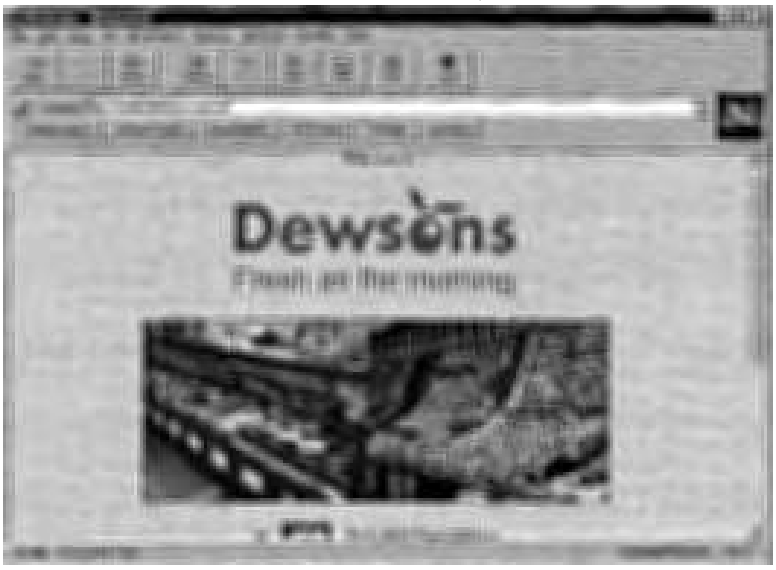

Figure 3.1 Dewsons Supermarket

Atmospherics

This site has a strong impression of atmospherics. It gives you an opportunity to experience inside the supermarket without physically going there. For example, it has pictures of its products (e.g. fruits, meat, and vegetables). The picture creates a feeling of being inside the supermarket.

News stories

This site does not provide a 'what's new' feature, explaining to customers the recent news or developmeut of DS's products and services.

Signs

The logo discerns visitors with its unique recognition. The sign of 'Dewsons supermarket fresh in the morning' produces an impact on the viewer, which leads to its products and services. It impacts the surfers or buyers, which encourages them to purchase goods from the comfort of their home or office.

Products and services

This site provides information about DS's products and services. It lists the products and the services that are provided by the company, for example a delivery service is available for whoever purchases goods from the supermarket. It is a 24-hour information on the Net. It is low cost, because buyers don't have to spend money and time visiting the supermarket physically. DS's Web site has a rich and structured display of information that customers are able to surf to meet their needs and wants. Information is up-to-date, as it is enforced by its logo 'fresh as the morning'.

Café St Tropez Restaurant

Café St Tropez Restaurant is an Australian organisation and located in the Sanctuary Cove Marina on the Gold Coast, Queensland, Australia. It was runner-up in the Gold Coast Restaurant and Café Guide's "Best Wine List" award and with over 30 wines served by the glass, the restaurant promotes that you will find your favourite.

The objective of CSTR is to provide an exceptionally enjoyable experience to its guests, as illustrated in Figure 3.2.

Figure 3.2 Café St Tropez Restaurant

Atmospherics

This site gives a strong impression of experiencing the ambiance without actually being there. Pictures, menus, food, and crockery used are displayed in this site.

News stories

This site has an event category to tell you news of past activities and other regular activities. Customer can also e-mail to view other events that are of interest.

Signs

The logo of this organisation is unique. It is a postmark with the restaurant's name beside a flower postage stamp.

Products and services

First, it is a 24-hour global service. Anyone can access it from any computer anywhere over the world. Second, it is low cost. Customers help themselves to find what kind of food (lunch or dinner) they want. Third, this site has rich and structured information. Customers can choose their own food from entrees to main courses. Fourth, information can be easily updated as required.

Value-I-Store

Value-I-Store (VIS) is a Malaysian-owned company that runs electronic commerce on the Internet. This organisation provides information of items ranging from flowers to computers and other goods, which can be purchased through the Internet.

The objective of this organisation is to create value for its stakeholders—customers, employees, shareholders and the community in which VIS operates (Figure 3.3).

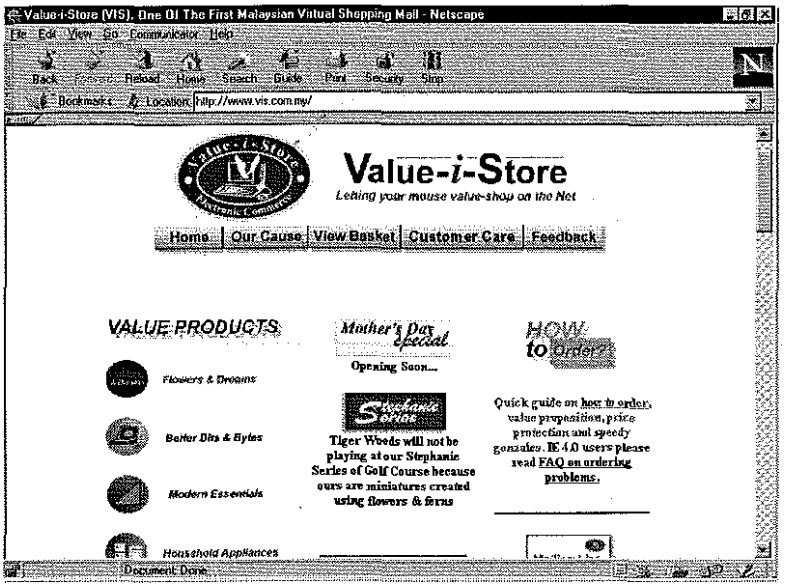

Figure 3.3 Value-I-Store

Atmospherics

This Web site does not provide an opportunity for customers to experience the ambiance of the VIS.

News stories

This page informs visitors about the development of this service. There are some articles in this homepage that can make us look closely and observe the advantages of this organisation.

Signs

The logo has symbols (i.e. a bird and computer) and some text (i.e. Value-i-Store and Electronic Commerce). It has three colours: green background, yellow elliptical lines, and white computer and bird. The logo has an impression of a legal stamp that legitimises any transaction using this service. The logo of VIS attracts and gives impacts of wanting to see more closely.

Products and services

First, the Web is a 24-hour global service, regardless of geographic location, all customers can access it. Second, it's low cost, all customers can help themselves to get information they want. Third, customers can tailor their search for meeting needs and wants because this site has a rich and well-structured content. Fourth, information can be easily updated when required.

Netcard Station

NetCard Station (NS) corporation is a Malaysian service-oriented organisation that created the first public Internet terminal. It is called NetCard Station using the SmartCard concept.

The objective of NS is to successfully develop and market a comprehensive range of world-class information, communication, and transaction services that value-add into the needs of communities and businesses, as shown in Figure 3.4.

Figure 3.4 NetCard Station

Atmospherics

This site does not provide an opportunity to have a feeling of being there physically.

News stories

A 'what's new' and news features are shown clearly to describe the latest information of the NetCard development.

Signs

An unclear text logo of 'netcard station channel' is displayed to create an impact on this site.

Products and services

This site is a very informative. First, it is 24-hour global service—customers can access this site regardless of geography location. Second, it is low cost—customers help themselves to get what they want. Third, the site is rich and has structured information so customers are able to search what they want. Fourth, the site can be updated as required.

Amway

Amway is a worldwide company, which deals with customers directly. Amway (Australia) began its business in 1971 and currently has over 88,000 distributorships and more than 250 employees as support staff. The objective of this organisation (Figure 3.5) is to embrace the global dimension of the Amway business opportunity.

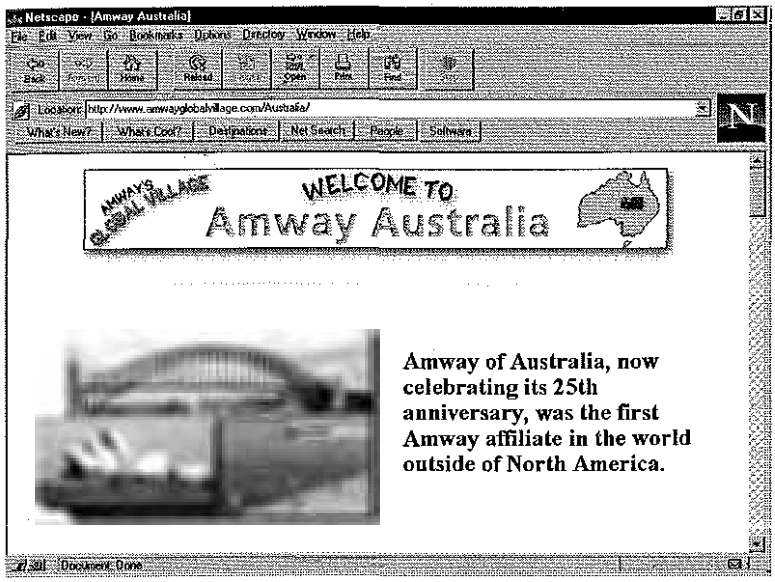

Figure 3.5 Amway (Australia)

Amway (Malaysia) was established in the 1970s and currently has 45 employees and 95,000 independent distributors. This organisation (Figure 3.6) has the objective to continuously commit to make a difference and enhance the quality of life in the local community.

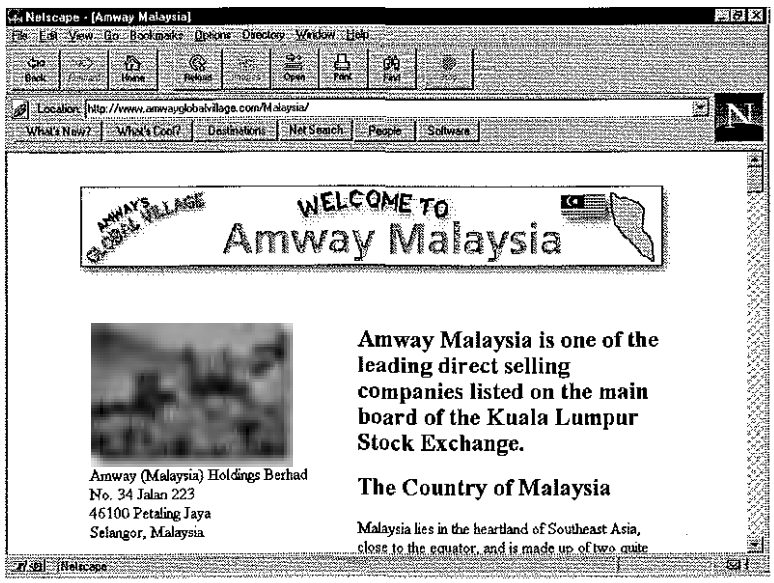

Figure 3.6 Amway (Malaysia)

The products of Amway are categorised as:

- Nutrition & wellness (e.g. nutritional supplements, food, drink)
- Personal care or beauty (e.g. skincare, cosmetics, toiletries)
- Home care (e.g. laundry care, household cleaner, car care)
- Home tech (e.g. water treatment system, carpet maintenance system, security products)
- Personal shoppers catalogue (e.g. clothes, cameras, locally manufactured products)

Atmospherics

- Australia: This site enables customers to know what products are offered. The product line summary gives information of general merchandise including beauty, health and fitness, home care, home tech and catalogue.
- Malaysia: This site enables customers to know what products are offered. The product line summary provides information of general merchandise including nutrition and wellness, personal care, home care, home tech and personal shoppers' catalogue.

News stories

- Australia: This site deploys news in a commitment to the community. Amway is involved in activities such as arts and culture, education, environment, human services and sports. They are informed in the news section. All information is text-based and some pictures.
- Malaysia: This site deploys news in a commitment to the community. Amway is involved in activities such as foster home program, quality life in the community,

touch-a-heart cards and public service advertisements. All information is text-based and some pictures.

Signs

This site uses the same logo/sign on the Australian and Malaysian Web sites.

Products and services

Both Australian and Malaysian organisations have the same elements. First, they are a 24-hour global service. Customers can access these sites regardless of geographic location. Second, they are low cost. Customers help themselves to recognise what products that they need. Third, these sites have an average value of richness of contents as well as their structure. Fourth, these sites are easily updated as required.

Ernst & Young

Ernst & Young (EY) is a professional service organisation that helps companies to identify and capitalise their business opportunities. EY is involved in businesses such as auditing, worldwide tax practising, management consulting, corporate finance, and entrepreneurial growth. It provides services in the area of automotive and insurance industries, retail and consumer products, energy, the life sciences, banking and financial services, and the technology, communications, entertainment, all over the world.

The objective of EY (Australia) is to achieve total client satisfaction satisfactorily by delivering value and maintaining the highest standard of professional integrity, as shown in Figure 3.7.

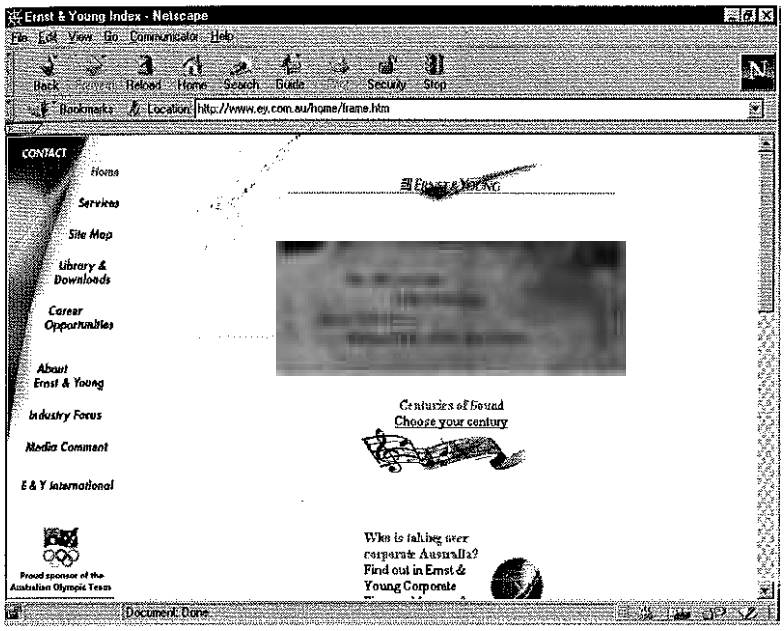

Figure 3.7 Ernst & Young (Australia)

The objective of EY (Malaysia) is to derive professional strength from the diversity of their people who combine experience with innovation, tradition with technology, and discipline with flexibility, as shown in Figure 3.8.

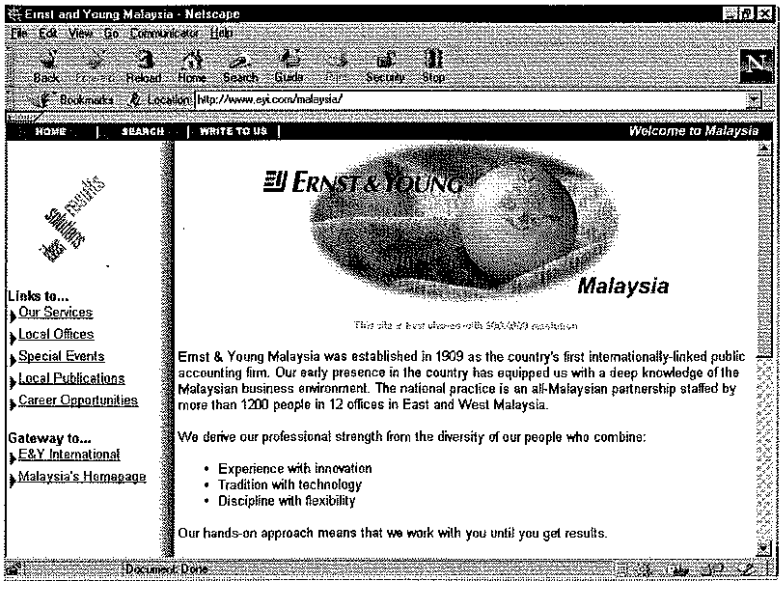

Figure 3.8 Ernst & Young (Malaysia)

Atmospherics

- Australia: This site does not provide much experience of an ambience within the company. There are no images depicting the inside environment of the company. A site map of textual information about EY is present.
- Malaysia: This site does not provide much experience of an ambience within the company, but a site map of textual information about what EY is present.

News Stories

- Australia: 'Media comments' is the term this site uses for news stories. It gives the latest information of EY's achievements in textual display. There are no images in this page.
- Malaysia: 'Special events' is the term this site uses for news stories. It gives the latest information of EY's achievements in textual display. There are no images in this page.

Signs

- Australia: The company's logo is small and not eye-catching.
- Malaysia: The company's logo is bigger than Australia's site, and a globe gives an impression of a worldwide organisation.

Products and Services

- Australia: First, this site is a 24-hour global service. Second, it is low cost, which customers can help themselves to get information they want. Third, customers can get information about what kind of service they want (i.e. management consulting,

entrepreneurial services, corporate services, etc.). Fourth, information can be easily updated as required by the company

- Malaysia: Basically, they are the same as the Australian-based organisation offers.

Development Of Questionnaire

A participant consent letter and an introduction initiate the laboratory experimentation research questionnaires. The letter is meant to appreciate the ethical aspects of this study and enable members of the Committee to understand completely the ethical implications of a research project (Committee for Conduct Ethical Research, 1998). The introduction describes the aim and benefit of this research including definition of the criteria.

There are two sections in the questionnaire. They are:

1. Description of the background data of each participant.
2. The selected criteria design of I^2M to evaluate its presence, absence and form.

In the first section, the heading of background data was used, instead of demographic. It reduced the unwanted impression of asking personal information. By asking personal information, such as age, income level, this may be embarrassing or threatening to the respondents (Zikmund, 1997). Background information comprises nationality, gender, major and second major of study, stay in Australia, year of study, and experience in browsing the Internet for locating products, services and information.

The second part consists of eight Web sites questionnaires, and has two sections. First, participants must answer the following questions:

- Do you have the feeling that you are visiting a Web site?
- Do you have the feeling that you know about recent developments of a Web site?
- Does the logo of a Web site create an impact on you?
- Does the display of products and services encourage you to look at other pages on a Web site?

Second, participant must answer the following questions:

- In your opinion, what impact do the design criteria (i.e. atmospherics, news stories, signs, and products & services) have on the overall effectiveness of a Web site?

Each Web site has the same questions using a seven-point Likert-type scale.

Pilot Testing Of Questionnaire

Two Ph.D. students and an academic lecturer in the School of Management Information Systems (MIS) of Edith Cowan University, Perth, tested the research questionnaires. One student has presented his Ph.D. proposal and the other one has almost finished the Ph.D. program. The lecturer of MIS school is an information

system (IS) lecturer who has a strong marketing background. These data were taken in May 1998.

The subjects participating in the pilot were all experienced academics who were familiar with the characteristics of undergraduate students including first year overseas students. When testing the questionnaire they were aware the questionnaires were going to be completed by students and therefore considered this when recommending changes to the draft questionnaire. One of the subjects was from an Asian country, the other two were from Australia.

The purpose of this pilot study is to test the design feasibility, data gathering and its associated procedures and the statistical and analytical procedures which will be applied to that data (Division of Academic Services, 1997).

The result of this test provided some ideas to modify the questionnaire. They entailed wording, layouts, margins, scales, instructions, confidentiality and general appearance of the research questionnaire.

In relation to wording, the definition of the design criteria (i.e. atmospherics, news stories, signs, and products & services) should be made as simple as possible. Participants (i.e. first year students) should be able to read and understand the design criteria easily. In order to do that each definition should be clearly explained using lay terms. The question that represents each design criteria should relate to its definition. For example, atmospherics is defined as an experience of being in a place without going there physically. It means if we have a feeling of being in a place, for instance, a

restaurant, without going there bodily, then this Web site has an element of atmospherics. In other words, you are visiting a place, virtually.

In the case of the atmospherics definition, the question is 'do you have the feeling that you are visiting Dewsons?'. The seven-point scale is used to express the opinions. The lowest is a weak feeling of virtual presence, and the highest is a strong feeling of virtual presence.

Each group of questions should have comment space and the questionnaire should also have an additional space for a general comment at the end. Questions and scales should have a separate margin, so people can read them easily. By doing this, the questionnaire will have better scanning and layout.

In the instruction page, participants were directed to browse Web sites mechanically. The Web sites were saved in the bookmark of Netscape Communicator, professional version. Participants were allowed to look at only the initial page. They were not allowed to click on other pages of Web sites. In doing so, the questionnaire will focus on the first impression participants have acquired in their mind.

In general, there are some aspects that should be modified in the questionnaire such as wording, layouts, and terminology. Each heading in the questionnaire should fill in a single page. This provides better focus scanning for the reader. Each selected Web site should also fit on one page. Some additional space for general comments of the entire research questionnaires and for each group of questions should be added. The layout of questions and scales should be read by aligning them in a certain margin size.

This will assist readers to read and answer the questions comfortably. Some of the wording was also modified to increase understanding by participants, particularly the four elements (i.e. atmospherics, news stories, signs and products & services) of Integrated Internet Marketing.

The modification of wording in the questionnaire should be described more clearly. For example, it is better to use 'low importance' rather than 'extremely unimportant' and 'low attraction' rather than 'highly unattractive appearance', and others.

Selection of Participants

A sample is a subset of the population. Pedhazur and Schmelkin (1991) and Sekaran (1984) defined sampling as a process of selecting a sufficient number of items from the population to which one wishes to generalise. In other words, a sufficient number or representative elements of a population is manipulated to generalise its characteristics or properties. The purpose of sampling is to estimate some unknown characteristics of the population (Zikmund, 1997). In this study, a number of first year students in Edith Cowan University (ECU) were selected to generalise characteristics of a population of organisations in Australia and Malaysia.

This study selected the samples randomly. A simple random sample technique was used to select the subjects. A simple random sample formulates a sample so that each item or person in the population has the same chance of being included (Mason & Lind, 1990). Every student in ECU had the same chance to be included in a sample.

Some classes and tutorials were visited to invite first year students for their participation. Some flyers notifying the research purpose and an invitation to participate in this study, were put on the notice boards at Joondalup and Churchlands campuses of ECU.

Research Procedure

The research approach is controlled laboratory experimentation. This approach was chosen to maintain over the Web sites that subjects are required to evaluate and the form of the evaluation. It enables a problem to be studied where the variables involved (i.e. the criteria selected from the I^2M model) are known, but behaviour (i.e. the evaluation of the variable by the participants) is not (Shanks et al, 1993). This approach is used when one wishes to discover whether certain variables produce effects in other variables (Cooper & Emory, 1995). The laboratory experiment settles on precision, which means it will have the precise results. The researcher has control over the procedures and participants have to do what the researcher requires them to do (Watson, 1998).

Advantages of the controlled laboratory method according to Cooper and Emory (1995) are:

- The researcher is able to manipulate the independent variables (i.e. presence or absence of the Web design characteristics identified by I^2M).
- The contamination from extraneous variables can be controlled more effectively than with other design (e.g. ensuring Malaysian participants were new arrivals in Australia).
- The convenience and cost of experimentation are superior to other method.
- The replication or repeating an experiment with different subjects groups and conditions discovers an average effect of the independent variables across people (e.g. using business people in Malaysia rather than Malaysian students in

Australia), situations (e.g. using Web sites from other sectors of the economy), and times.

- The field experiment can be used to reduce the subjects' perceptions of the researchers as a source of intervention or deviation in their everyday lives.

Disadvantages of the controlled laboratory experiment according to Cooper and Emory (1995) are:

- The artificiality of the laboratory.
- Generalisation from non-probability samples can pose problems despite random assignment.
- Despite its low costs, many marked applications of experimentation far outrun the budgets for other primary data collection methods.
- Experimentation is most effectively targeted at problems of the present or immediate future.
- There are limits to the types of manipulation and controls that are ethical.

The subjects were invited to the research laboratory (room 17.137) at Churchlands Campus, ECU. A short welcoming speech initiated each session. The researcher guided and controlled all participants to fill in the questionnaires. All participants were required to read the cover letter and instructions thoroughly before completing the questionnaire. The cover letter described the invitation to participate in the study, an explanation of the nature, and significance and benefits of the study. It also described the confidentiality of each respondent's data.

In order to complete the questionnaire subjects were not allowed to click on to other pages; they could scroll down and up or left and right. Each participant evaluated 8 Web sites. In order to ease the evaluation, all selected Web sites were bookmarked on the basis of the questionnaire development. A copy of the consent letter and the questionnaire are attached in Appendix A.

CHAPTER 4: DATA ANALYSIS

This chapter initially presents the demographic data of the respondents, validity, reliability and distribution of data, descriptive statistics comprising tables and graphs, and hypotheses testing. The demographic data comprises the composition of Australians and Malaysians as well as their gender, year of study, and length of stay in Australia. It also describes each group major of study including their experience of Web usage (i.e. using the Web to locate products, services or information). The descriptive analyses indicates the mean, standard deviation, maximum and minimum, and range of each variable on each Web site. This is then followed by the non-parametric statistics tests of the variables used in the hypotheses testing. The result of the hypotheses testing is presented and at the end of the chapter, the results of some interesting additional tests reported.

Demographic Data

In this study, 60 subjects voluntarily participated in the controlled laboratory experimentation. The subjects comprised 30 Australian and 30 Malaysian first year students who were invited to come to the computer laboratory. They were asked to complete the questionnaires.

The study included 23 males and 37 females; with the Australian group, comprising 11 males and 19 females, while the Malaysian group, comprised 12 males and 18 females, as illustrated in Table 4.1.

Table 4.1 Gender composition

	Total Frequency	%	Australian	%	Malaysian	%
Male	23	38.3	11	36.7	12	40.0
Female	37	61.7	19	63.3	18	60.0
Total	60	100.0	30	100.0	30	100.0

In this research the Malaysian subjects were restricted to first year students who therefore had not spent much time in Australia. This was required to reduce cross-cultural influences while the Malaysian students study overseas (Australia).

Table 4.2 shows that the 30 Australian students are in their first year of study in the University whereas the Malaysian group, they vary from first, second and third year students. They are being 11, 13 and 6 students in each year level.

Table 4.2 Year of study

Year of study	Total Frequency	%	Australian	%	Malaysian	%
1	41	68.3	30	100.0	11	36.7
2	13	21.7	0	0.0	13	43.3
3	6	10.0	0	0.0	6	20.0
Total	60	100	30	100.0	30	100.0

Although there are more variation in the year of study in the Malaysian group, Table 4.3 shows that 29 out of 30 Australian subjects have stayed in Australia for more than five years while 20 out of 30 Malaysian subjects have stayed in Australia for less than one year.

Table 4.3 Stay in Australia

Stay in Australia	Total Frequency	%	Australian	%	Malaysian	%
< 1 year	21	35.0	1	3.3	20	66.7
1 - 3 years	4	6.7	0	0.0	4	13.3
3 - 5 years	4	6.7	0	0.0	4	13.3
> 5 years	31	51.7	29	96.7	2	6.7
Total	60	100.0	30	100.0	30	100.0

Therefore 66.7 percent of Malaysian subjects have stayed less than one year in Australia and 96.7 percent of Australian subjects have stayed in Australia for more than five years when the research was conducted.

Table 4.4 shows that 25 percent of the subjects study in Accounting and 20 percent of the subjects study in a Marketing Major. These two major studies are dominant to the subjects. In the Australian group, five students are studying accounting and four students studying marketing. In the Malaysian group, ten students are studying accounting and eight students studying marketing.

Table 4.4 Major of study

Major of study	Total Frequency	%	Australian	%	Malaysian	%
Accounting	15	25.0	5	16.7	10	33.3
Business	9	15.0	6	20.0	3	10.0
Engineering	1	1.7	0	0.0	1	3.3
Human resource management	5	8.3	4	13.3	1	3.3
Information systems	8	13.3	4	13.3	4	13.3
Information Technology-Electronic commerce	1	1.7	1	3.3	0	0.0
International business	1	1.7	1	3.3	0	0.0
Management	5	8.3	2	6.7	3	10.0
Marketing	12	20.0	4	13.3	8	26.7
Multimedia	1	1.7	1	3.3	0	0.0
Photomedia	1	1.7	1	3.3	0	0.0
Teaching	1	1.7	1	3.3	0	0.0
Total	60	100.0	30	100.0	30	100.0

In Table 4.5, 33.3 percent of the total subjects have the highest distribution of Web usage (i.e. how often using the Web to locate products, services or information) experience.

Table 4.5 Web usage experience

	Total Frequency	%	Australian	%	Malaysian	%
None (1)	4	6.7	3	10.0	1	3.3
2	5	8.3	4	13.3	1	3.3
3	9	15.0	4	13.3	5	16.7
4	6	10.0	3	10.0	3	10.0
5	20	33.3	9	30.0	11	36.7
6	7	11.7	3	10.0	4	13.3
Very often (7)	9	15.0	4	13.3	5	16.7
Total	60	100.0	30	100.0	30	100.0

A frequency of 20 subjects from the total participants rated five on a seven-point Likert scale, comprising 9 Australians and 11 Malaysians. The impact of Web usage experience to either the Malaysian and the Australian group will be hypothesised to seek significant differences.

Descriptive Statistics

Tables

Table 4.6 shows the descriptive statistics of the Australian and Malaysian groups for all variables of selected Web sites. It indicates the minimum, maximum, range, mean and standard deviation of each variable on each Web site.

Table 4.6 Descriptive statistics for the Australian and Mulaysian groups on selected Web sites (N=60)

Variables that selected from I^2M model	Mean	Std. Dev.	Range	Min	Max
DS Atmospherics	4.22	1.37	6	1	7
DS News Stories	2.40	1.37	5	1	6
DS Signs	4.95	1.37	6	1	7
DS Products & Services	4.58	1.65	6	1	7
DS Effectiveness Atmospherics	4.37	1.58	6	1	7
DS Effectiveness News Stories	2.53	1.27	5	1	6
DS Effectiveness Signs	4.87	1.32	5	2	7
DS Effectiveness Products & Services	4.68	1.49	6	1	7
CSTR Atmospherics	5.30	1.28	5	2	7
CSTR News Stories	4.48	1.56	6	1	7
CSTR Signs	4.55	1.49	5	2	7
CSTR Products & Services	5.63	1.15	6	1	7
CSTR Effectiveness Atmospherics	5.43	1.25	4	3	7
CSTR Effectiveness News Stories	4.42	1.53	6	1	7
CSTR Effectiveness Signs	4.78	1.47	5	2	7
CSTR Effectiveness Products & Services	5.42	1.20	6	1	7
VIS Atmospherics	3.67	1.85	6	1	7
VIS News Stories	3.92	1.77	6	1	7
VIS Signs	3.52	1.73	6	1	7
VIS Products & Services	4.72	1.91	6	1	7
VIS Effectiveness Atmospherics	3.73	1.93	6	1	7
VIS Effectiveness News Stories	3.97	1.80	6	1	7
VIS Effectiveness Signs	3.98	1.82	6	1	7
VIS Effectiveness Products & Services	4.82	1.72	6	1	7
NS Atmospherics	3.72	1.82	6	1	7
NS News Stories	3.92	1.95	6	1	7
NS Signs	3.03	1.90	6	1	7
NS Products & Services	4.70	1.82	6	1	7
NS Effectiveness Atmospherics	3.82	1.76	6	1	7
NS Effectiveness News Stories	3.85	1.83	6	1	7
NS Effectiveness Signs	3.58	1.77	6	1	7
NS Effectiveness Products & Services	4.82	1.80	6	1	7

Scored on a 7-point numerical scale where 1 = least and 7 = most of the time

Table 4.6 Descriptive statistics for the Australian and Malaysian groups on selected Web sites (Continued)

Variables that selected from I^2M model (N=60)	Mean	Std. Dev.	Range	Min	Max
A(A) Atmospherics	4.28	1.44	6	1	7
A(A) News Stories	5.23	1.51	5	2	7
A(A) Signs	3.62	1.60	6	1	7
A(A) Products & Services	4.15	1.72	6	1	7
A(A) Effectiveness Atmospherics	4.07	1.54	6	1	7
A(A) Effectiveness News Stories	4.65	1.52	5	2	7
A(A) Effectiveness Signs	3.80	1.55	6	1	7
A(A) Effectiveness Products & Services	4.53	1.71	6	1	7
A(M) Atmospherics	3.90	1.47	6	1	7
A(M) News Stories	5.02	1.55	5	2	7
A(M) Signs	3.47	1.59	6	1	7
A(M) Products & Services	3.87	1.88	6	1	7
A(M) Effectiveness Atmospherics	3.87	1.49	6	1	7
A(M) Effectiveness News Stories	4.57	1.57	6	1	7
A(M) Effectiveness Signs	3.65	1.60	6	1	7
A(M) Effectiveness Products & Services	4.55	1.81	6	1	7
EY(A) Atmospherics	4.17	1.61	6	1	7
EY(A) News Stories	4.38	1.69	6	1	7
EY(A) Signs	4.78	1.63	6	1	7
EY(A) Products & Services	5.05	1.45	5	2	7
EY(A) Effectiveness Atmospherics	4.25	1.66	6	1	7
EY(A) Effectiveness News Stories	4.57	1.69	6	1	7
EY(A) Effectiveness Signs	4.78	1.53	6	1	7
EY(A) Effectiveness Products & Services	4.98	1.52	6	1	7
EY(M) Atmospherics	4.13	1.58	6	1	7
EY(M) News Stories	4.57	1.50	6	1	7
EY(M) Signs	5.02	1.46	6	1	7
EY(M) Products & Services	4.23	1.44	6	1	7
EY(M) Effectiveness Atmospherics	4.18	1.46	6	1	7
EY(M) Effectiveness News Stories	4.38	1.58	6	1	7
EY(M) Effectiveness Signs	4.82	1.55	6	1	7
EY(M) Effectiveness Products & Services	4.58	1.49	6	1	7

Scored on a 7-point numerical scale where 1 = least and 7 = most of the time

Observations (Australians and Malaysians)

In Table 4.6, the highest mean ($\mu = 5.63$; $\sigma = 1.15$) of the Web design characteristics for the both groups is the variable 'products and services' of the Café St. Tropez Restaurant site. The lowest mean ($\mu = 2.40$; $\sigma = 1.37$) of the Web design characteristics for the both groups is the variable 'news stories'. In Web design characteristics impact on the overall effectiveness of Web sites, the highest mean ($\mu = 5.43$; $\sigma = 1.25$) is the variable 'effectiveness atmospherics' on CSTR site; and the lowest mean ($\mu = 2.53$; $\sigma = 1.27$) is the variable 'news stories' on Dewsons Supermarket site.

Table 4.7 shows the descriptive statistics of the Australian group for all variables of selected Web sites. It indicates the minimum, maximum, range, mean and standard deviation of each variable on each Web site.

Table 4.7 Descriptive statistics for the Australian group on selected Web sites

Variables that selected from I²M model (N=30)	Mean	Std. Dev.	Range	Min	Max
DS Atmospherics	4.43	1.45	6	1	7
DS News Stories	2.17	1.34	4	1	5
DS Signs	5.17	1.39	5	2	7
DS Products & Services	5.13	1.43	5	2	7
DS Effectiveness Atmospherics	4.67	1.49	5	2	7
DS Effectiveness News Stories	2.03	1.07	4	1	5
DS Effectiveness Signs	5.07	1.46	5	2	7
DS Effectiveness Products & Services	4.80	1.54	5	2	7
CSTR Atmospherics	5.30	1.42	5	2	7
CSTR News Stories	4.80	1.56	6	1	7
CSTR Signs	4.83	1.44	5	2	7
CSTR Products & Services	5.77	1.04	5	2	7
CSTR Effectiveness Atmospherics	5.50	1.28	4	3	7
CSTR Effectiveness News Stories	4.60	1.45	6	1	7
CSTR Effectiveness Signs	5.17	1.44	5	2	7
CSTR Effectiveness Products & Services	5.67	1.35	6	1	7
VIS Atmospherics	3.53	2.00	6	1	7
VIS News Stories	3.93	1.84	6	1	7
VIS Signs	3.43	1.87	6	1	7
VIS Products & Services	4.57	2.05	6	1	7
VIS Effectiveness Atmospherics	3.77	2.06	6	1	7
VIS Effectiveness News Stories	3.70	1.78	6	1	7
VIS Effectiveness Signs	4.07	1.87	6	1	7
VIS Effectiveness Products & Services	4.90	1.73	6	1	7
NS Atmospherics	3.43	1.79	6	1	7
NS News Stories	3.50	2.00	6	1	7
NS Signs	3.10	2.09	6	1	7
NS Products & Services	4.17	1.86	6	1	7
NS Effectiveness Atmospherics	3.57	1.81	6	1	7
NS Effectiveness News Stories	3.23	1.74	6	1	7
NS Effectiveness Signs	3.77	1.61	6	1	7
NS Effectiveness Products & Services	4.47	1.78	6	1	7

Scored on a 7-point numerical scale where 1 = least and 7 = most of the time

Table 4.7 Descriptive statistics for the Australian group on selected Web sites (continued)

Variables that selected from I²M model (N=30)	Mean	Std. Dev.	Range	Min	Max
A(A) Atmospherics	4.40	1.52	6	1	7
A(A) News Stories	5.43	1.59	5	2	7
A(A) Signs	3.60	1.75	6	1	7
A(A) Products & Services	4.13	1.81	6	1	7
A(A) Effectiveness Atmospherics	4.17	1.60	5	2	7
A(A) Effectiveness News Stories	4.87	1.61	5	2	7
A(A) Effectiveness Signs	3.83	1.68	6	1	7
A(A) Effectiveness Products & Services	4.47	1.76	6	1	7
A(M) Atmospherics	3.80	1.49	6	1	7
A(M) News Stories	5.20	1.45	5	2	7
A(M) Signs	3.30	1.64	6	1	7
A(M) Products & Services	3.70	1.86	6	1	7
A(M) Effectiveness Atmospherics	3.83	1.42	6	1	7
A(M) Effectiveness News Stories	4.70	1.70	6	1	7
A(M) Effectiveness Signs	3.60	1.61	6	1	7
A(M) Effectiveness Products & Services	4.43	1.79	6	1	7
EY(A) Atmospherics	4.07	1.48	6	1	7
EY(A) News Stories	4.50	1.80	6	1	7
EY(A) Signs	5.13	1.36	5	2	7
EY(A) Products & Services	5.27	1.44	5	2	7
EY(A) Effectiveness Atmospherics	4.20	1.67	6	1	7
EY(A) Effectiveness News Stories	4.70	1.76	6	1	7
EY(A) Effectiveness Signs	5.17	1.26	4	3	7
EY(A) Effectiveness Products & Services	5.13	1.55	6	1	7
EY(M) Atmospherics	4.13	1.59	6	1	7
EY(M) News Stories	4.57	1.55	6	1	7
EY(M) Signs	5.30	1.34	5	2	7
EY(M) Products & Services	4.03	1.30	4	2	6
EY(M) Effectiveness Atmospherics	4.30	1.37	4	2	6
EY(M) Effectiveness News Stories	4.23	1.65	6	1	7
EY(M) Effectiveness Signs	5.00	1.49	5	2	7
EY(M) Effectiveness Products & Services	4.47	1.41	6	1	7

Scored on a 7-point numerical scale where 1 = least and 7 = most of the time

Observations (Australians)

In this table, the highest mean ($\mu = 5.77$; $\sigma = 1.04$) of the Web design characteristics for the Australian group is the variable 'products and services' of Café St Tropez Restaurant site. The lowest mean ($\mu = 2.17$; $\sigma = 1.34$) of the Web design characteristics for the Australian group is the variable 'news stories' on Dewsons Supermarket site. In Web design characteristic impact on the overall effectiveness of Web sites, the highest mean ($\mu = 5.67$; $\sigma = 1.35$) is the variable 'effectiveness products and services' of CSTR site; and the lowest mean ($\mu = 2.03$; $\sigma = 1.07$) is the variable 'effectiveness news stories' of DS.

Table 4.8 shows the descriptive statistics of the Malaysian group for all variables of selected Web sites. It indicates the minimum, maximum, range, mean and standard deviation of each variable on each Web site.

Table 4.8 Descriptive statistics for the Malaysian group on selected Web sites

Variables that selected from I^2M model (N=30)	Mean	Std. Dev.	Range	Min	Max
DS Atmospherics	4.00	1.26	5	1	6
DS News Stories	2.63	1.38	5	1	6
DS Signs	4.73	1.34	6	1	7
DS Products & Services	4.03	1.69	6	1	7
DS Effectiveness Atmospherics	4.07	1.64	6	1	7
DS Effectiveness News Stories	3.03	1.27	5	1	6
DS Effectiveness Signs	4.67	1.15	4	3	7
DS Effectiveness Products & Services	4.57	1.45	6	1	7
CSTR Atmospherics	5.30	1.15	4	3	7
CSTR News Stories	4.17	1.51	6	1	7
CSTR Signs	4.27	1.51	5	2	7
CSTR Products & Services	5.50	1.25	6	1	7
CSTR Effectiveness Atmospherics	5.37	1.25	4	3	7
CSTR Effectiveness News Stories	4.23	1.61	6	1	7
CSTR Effectiveness Signs	4.40	1.43	5	2	7
CSTR Effectiveness Products & Services	5.17	0.99	4	3	7
VIS Atmospherics	3.80	1.71	5	2	7
VIS News Stories	3.90	1.73	6	1	7
VIS Signs	3.60	1.61	6	1	7
VIS Products & Services	4.87	1.80	6	1	7
VIS Effectiveness Atmospherics	3.70	1.82	6	1	7
VIS Effectiveness News Stories	4.23	1.81	6	1	7
VIS Effectiveness Signs	3.90	1.79	6	1	7
VIS Effectiveness Products & Services	4.73	1.74	6	1	7
NS Atmospherics	4.00	1.84	6	1	7
NS News Stories	4.33	1.84	6	1	7
NS Signs	2.97	1.71	6	1	7
NS Products & Services	5.23	1.63	6	1	7
NS Effectiveness Atmospherics	4.07	1.70	6	1	7
NS Effectiveness News Stories	4.47	1.74	6	1	7
NS Effectiveness Signs	3.40	1.92	6	1	7
NS Effectiveness Products & Services	5.17	1.78	6	1	7

Scored on a 7-point numerical scale where 1 = least and 7 = most of the time

Table 4.8 Descriptive statistics for the Malaysian group on selected Web sites (continued)

Variables that selected from I^2M model (N=30)	Mean	Std. Dev.	Range	Min	Max
A(A) Atmospherics	4.17	1.37	5	1	6
A(A) News Stories	5.03	1.43	4	3	7
A(A) Signs	3.63	1.45	5	1	6
A(A) Products & Services	4.17	1.64	6	1	7
A(A) Effectiveness Atmospherics	3.97	1.50	5	1	6
A(A) Effectiveness News Stories	4.43	1.41	5	2	7
A(A) Effectiveness Signs	3.77	1.43	5	1	6
A(A) Effectiveness Products & Services	4.60	1.69	6	1	7
A(M) Atmospherics	4.00	1.46	6	1	7
A(M) News Stories	4.83	1.64	5	2	7
A(M) Signs	3.63	1.54	6	1	7
A(M) Products & Services	4.03	1.92	6	1	7
A(M) Effectiveness Atmospherics	3.90	1.58	6	1	7
A(M) Effectiveness News Stories	4.43	1.43	5	2	7
A(M) Effectiveness Signs	3.70	1.62	6	1	7
A(M) Effectiveness Products & Services	4.67	1.84	6	1	7
EY(A) Atmospherics	4.27	1.74	6	1	7
EY(A) News Stories	4.27	1.60	6	1	7
EY(A) Signs	4.43	1.81	6	1	7
EY(A) Products & Services	4.83	1.46	5	2	7
EY(A) Effectiveness Atmospherics	4.30	1.68	5	1	6
EY(A) Effectiveness News Stories	4.43	1.63	6	1	7
EY(A) Effectiveness Signs	4.40	1.69	6	1	7
EY(A) Effectiveness Products & Services	4.83	1.51	5	2	7
EY(M) Atmospherics	4.13	1.59	6	1	7
EY(M) News Stories	4.57	1.48	6	1	7
EY(M) Signs	4.73	1.53	6	1	7
EY(M) Products & Services	4.43	1.57	6	1	7
EY(M) Effectiveness Atmospherics	4.07	1.55	6	1	7
EY(M) Effectiveness News Stories	4.53	1.53	5	2	7
EY(M) Effectiveness Signs	4.63	1.61	6	1	7
EY(M) Effectiveness Products & Services	4.70	1.58	6	1	7

Scored on a 7-point numerical scale where 1 = least and 7 = most of the time

Observations (Malaysians)

In the Malaysian group, the highest mean ($\mu = 5.50$; $\sigma = 1.25$) of the Web design characteristics is the variable 'products and services' of CSTR site. The lowest mean ($\mu = 2.63$; $\sigma = 1.38$) of the Web design characteristics is the variable 'news stories' of DS site. In Web design characteristics impact on the overall effectiveness of Web sites, the highest mean ($\mu = 5.37$; $\sigma = 1.25$) is the variable 'effectiveness atmospherics' of CSTR site; and the lowest mean ($\mu = 3.03$; $\sigma = 1.27$) is the variable 'news stories' of DS site.

The ratings reflected in the preceding tables will be statistically analysed to establish significant inter and intra group differences. Responses are graphically presented in the following figures.

Graphs

Dewsons Supermarket

Figure 4.1 illustrates the means differences of the Australian and Malaysian groups on Dewsons Supermarket (DS) site by observing the Web design characteristics and their impact on the overall effectiveness.

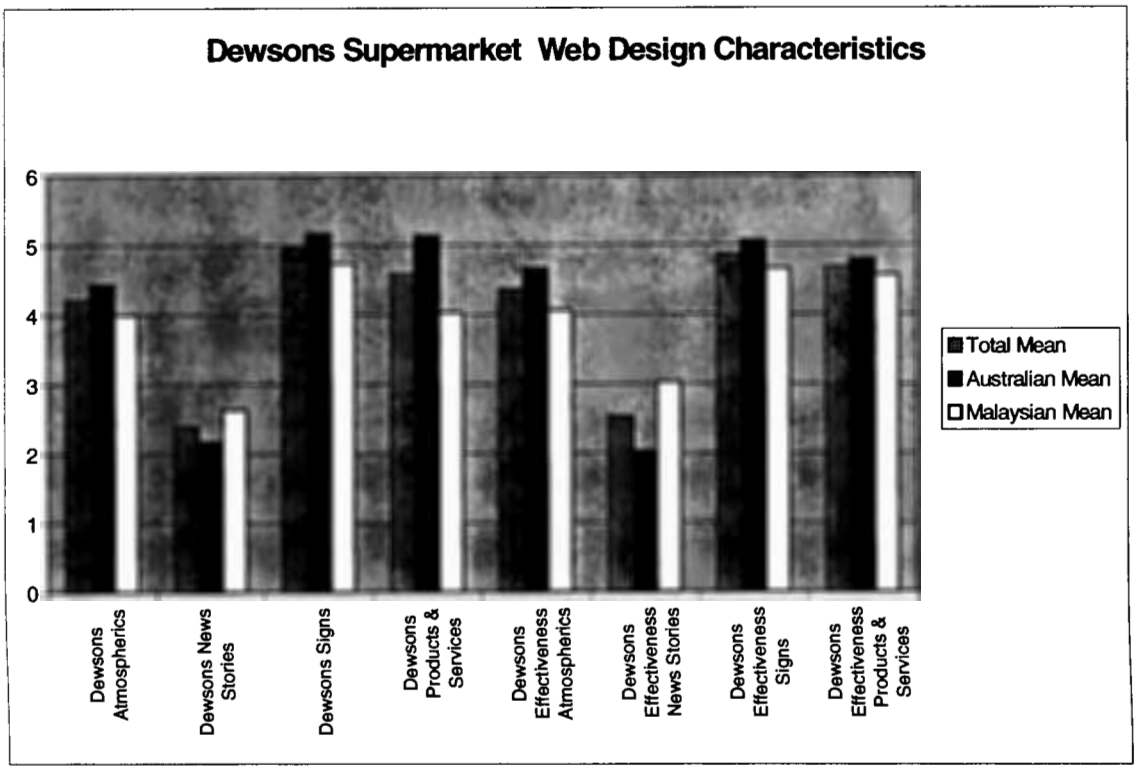

Figure 4.1 The means of the Dewsons Supermarket Web design characteristics

The Australian and Malaysian groups observed the variable 'signs' as the most probable value on DS site. Both groups observed the variable 'effectiveness signs' as the most probable value for its impact on the overall effectiveness of this site. On the other hand, the Australian and Malaysian groups observed the variable 'news stories' as the least probable value of DS site. Both groups observed the variable 'effectiveness news stories' as the least probable value for its impact on the overall effectiveness of this site.

Figure 4.1 indicates a large difference of means between both groups on the variable 'products and services' and also on the variable 'effectiveness news stories'. The statistical significant differences in these variables will be considered later.

Café St. Tropez Restaurant

Figure 4.2 illustrates the means differences of the Australian and Malaysian groups on Café St Tropez Restaurant (CSTR) site by observing the Web design characteristics and their impact on the overall effectiveness.

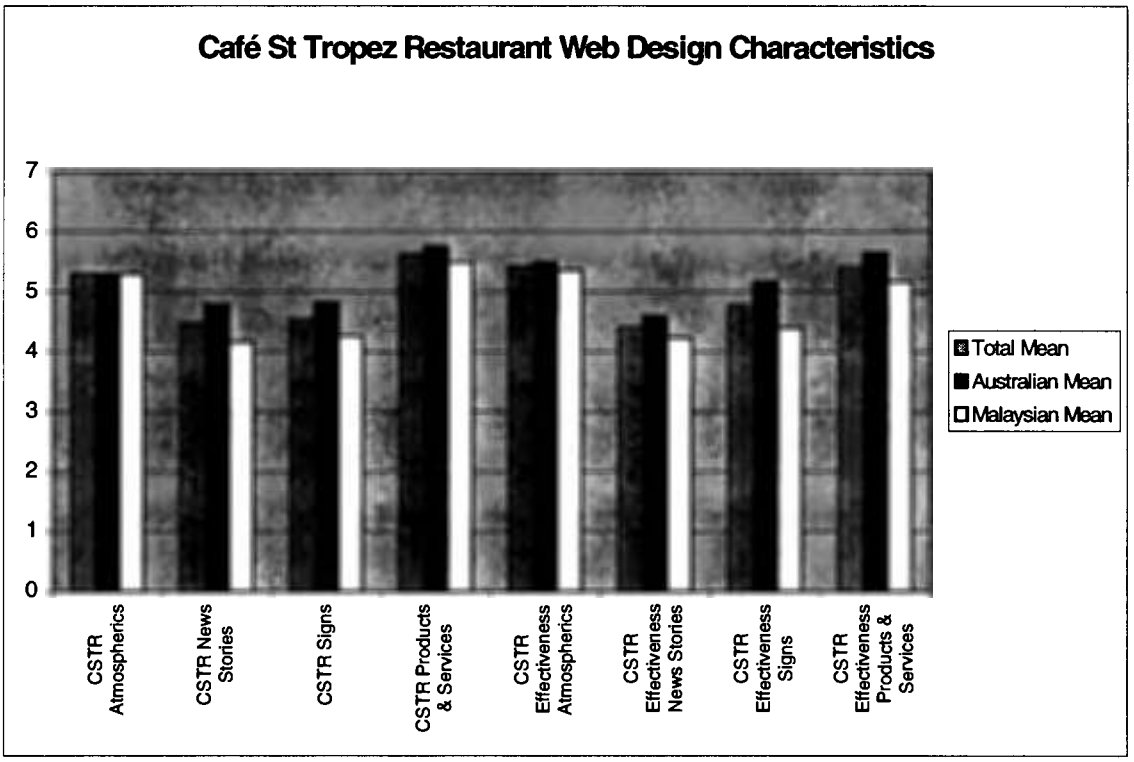

Figure 4.2 The means of the Café St Tropez Restaurant Web design characteristics

The Australian and Malaysian groups observed the variable 'products and services' as the most probable value on this site. The Australian group observed the variable 'effectiveness products and services' and the Malaysian group observed the variable 'effectiveness atmospherics' as the most probable values for their impact on the overall effectiveness. On the other hand, the Australian and Malaysian groups observed the variable 'news stories' as the least probable value of CSTR site. Both groups observed the variable 'effectiveness news stories' as the least probable value for its impact on the overall effectiveness of this site.

In Figure 4.2, there is a large difference of means between both groups on the variable 'news stories' and also on the variable 'effectiveness signs'. The statistical significant differences in these variables will be considered later.

Value-I-Store

Figure 4.3 shows that the means differences of the Australian and Malaysian groups on Value-I-Store (VIS) site by observing the Web design characteristics and their impact on the overall effectiveness.

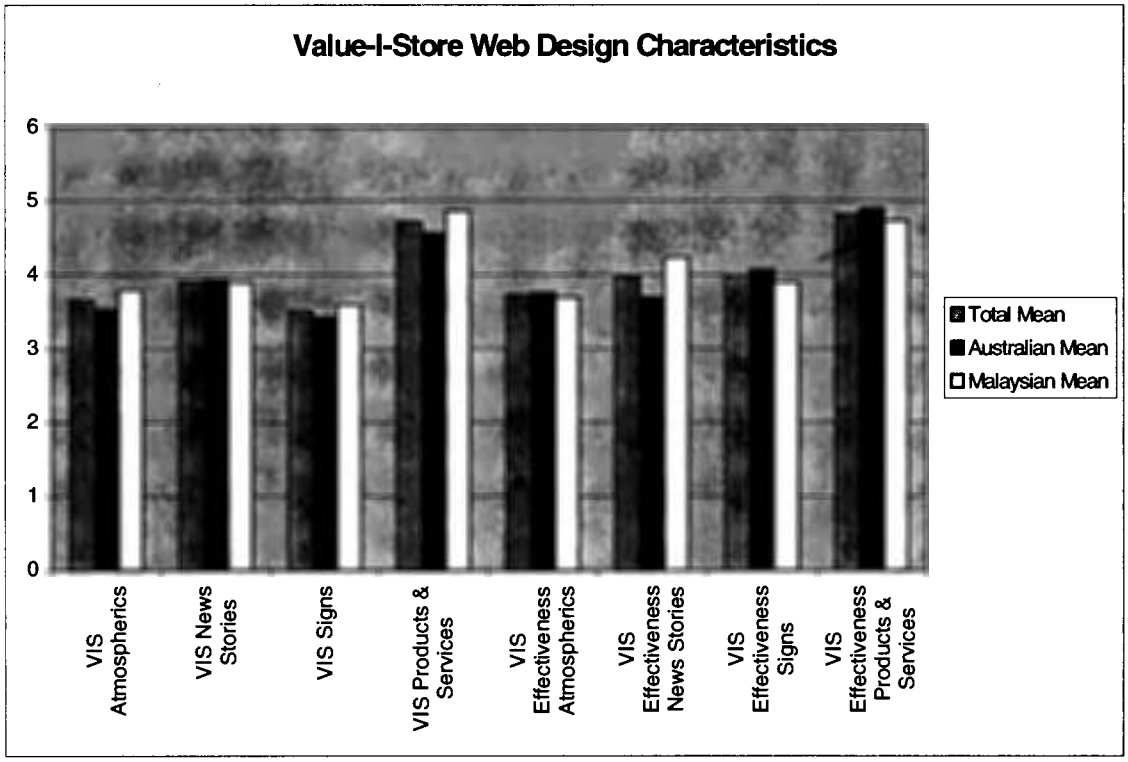

Figure 4.3 The means of the Value-I-Store Web design characteristics

The Australian and Malaysian groups observed the variable 'products and services' as the most probable value on this site. Both groups observed the variable 'effectiveness products and services' as the most probable value for its impact on the

overall effectiveness. On the other hand, the Australian and Malaysian groups observed the variable 'signs' as the least probable value of VIS site. The Australian group observed the variable 'effectiveness news stories' as the least probable value for its impact on the overall effectiveness while the Malaysian group observed the variable 'effectiveness atmospherics' as the least probable value for its impact on the overall effectiveness.

In Figure 4.3, there is a large difference of means between both groups on the variable 'products and services' and also on the variable 'effectiveness news stories'. The statistical significant differences in these variables will be considered later.

Netcard Station

Figure 4.4 shows that the means differences of the Australian and Malaysian groups on Netcard Station (NS) site by observing the Web design characteristics and their impact on the overall effectiveness.

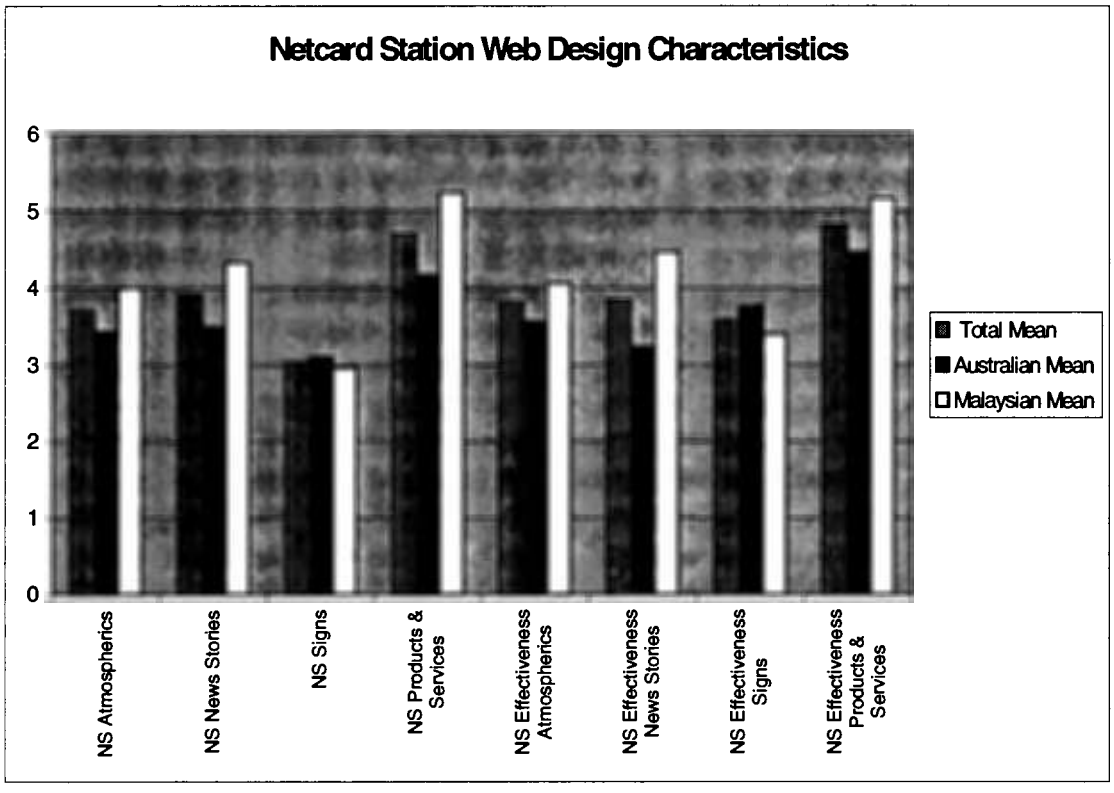

Figure 4.4 The means of the Netcard Station Web design characteristics

The Australian and Malaysian groups observed the variable 'products and services' as the most probable value on this site. Both groups observed the variable 'effectiveness products and services' as the most probable value for its impact on the overall effectiveness. On the other hand, the Australian and Malaysian groups observed the variable 'signs' as the least probable value of NS site. The Australian group observed the variable 'effectiveness news stories' as the least probable value for its impact on the overall effectiveness while the Malaysian group observed the variable 'effectiveness signs' as the least probable value for its impact on the overall effectiveness.

In Figure 4.4, there is a large difference of means between both groups on the variable 'products and services' and also on the variable 'effectiveness news stories'. The statistical significant differences in these variables will be considered later.

Amway (Australia)

Figure 4.5 illustrates that the means differences of the Australian and Malaysian groups on Amway (Australia) site by observing the Web design characteristics and their impact on the overall effectiveness.

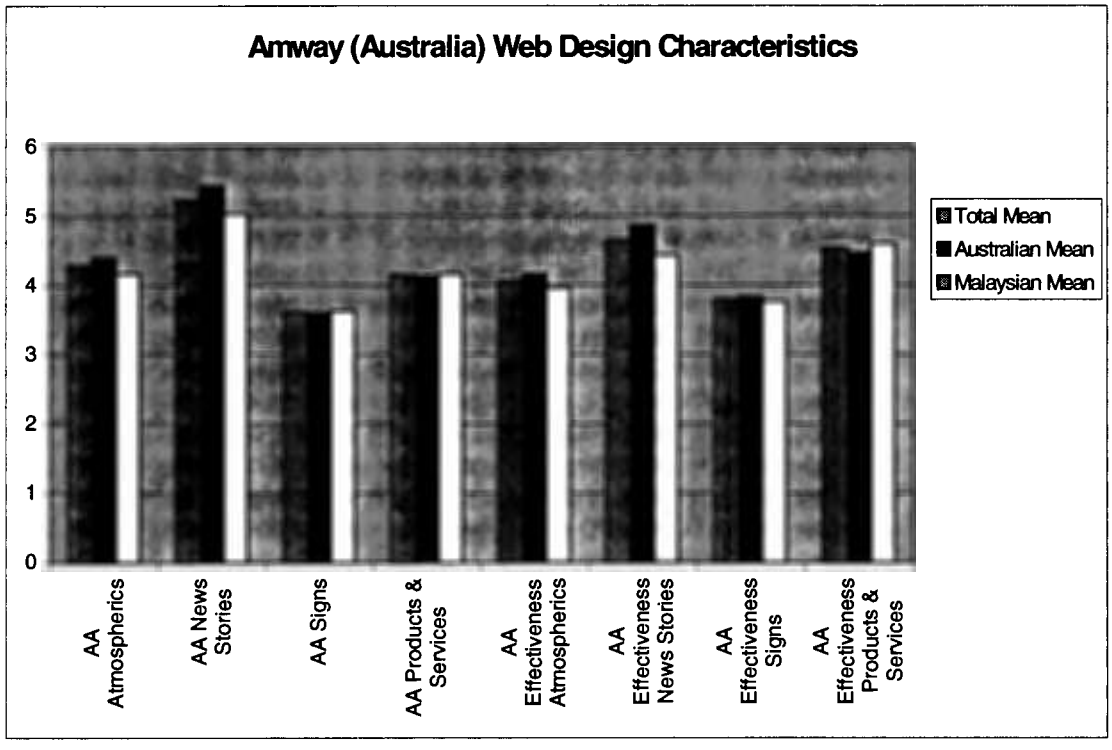

Figure 4.5 The means of the Amway (Australia) Web design characteristics

The Australian and Malaysian groups observed the variable 'news stories' as the most probable value on this site. The Australian group observed the variable 'effectiveness news stories' as the most probable value for its impact on the overall effectiveness while the Malaysian group observed the variable 'effectiveness products and services'. On the other hand, the Australian and Malaysian groups observed the variable 'signs' as the least probable value of A(A) site. Both groups observed the

variable 'effectiveness signs' as the least probable value for its impact on the overall effectiveness on this site.

In Figure 4.5, there is a large difference of means between both groups on the variable 'news stories' and also on the variable 'effectiveness news stories'. The statistical significant differences in these variables will be considered later.

Amway (Malaysia)

Figure 4.6 shows that the means differences of the Australian and Malaysian groups on Amway (Malaysia) site by observing the Web design characteristics and their impact on the overall effectiveness.

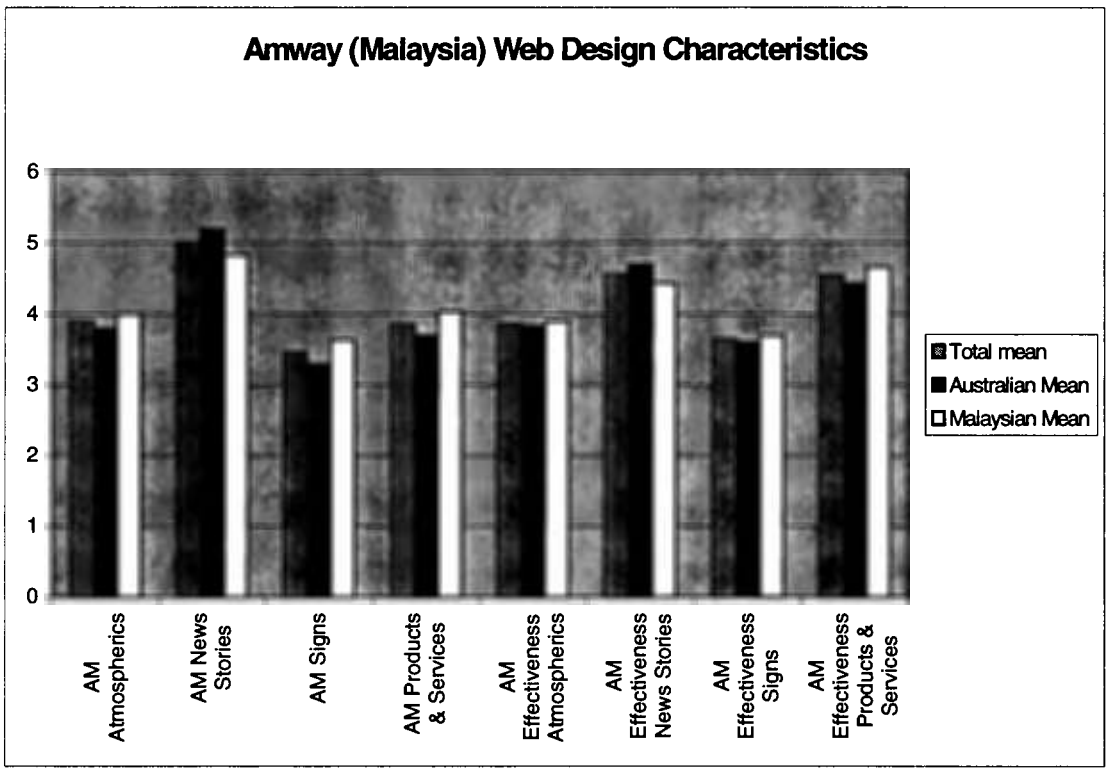

Figure 4.6 The means of the Amway (Malaysia) Web design characteristics

The Australian and Malaysian groups observed the variable 'news stories' as the most probable value on this site. The Australian group observed the variable 'effectiveness news stories' as the most probable value for its impact on the overall effectiveness while the Malaysian group observed the variable 'effectiveness products and services' as the most probable value for its impact on the overall effectiveness. On the other hand, the Australian and Malaysian groups observed the variable 'signs' as the least probable value of A(M) site. Both groups observed the variable 'effectiveness signs' as the least probable value for its impact on the overall effectiveness on this site.

In Figure 4.6, there is a large difference of means between both groups on the variable 'news stories' and also on the variable 'effectiveness news stories'. The statistical significant differences in these variables will be considered later.

Australian and Malaysian have similar opinions about the Web design criteria and their impact on the overall effectiveness on A(A) and A(M) sites.

Ernst & Young (Australia)

Figure 4.7 shows the mean differences of the Australian and Malaysian groups on Ernst & Young (Australia) site by observing the Web design characteristics and their impact on the overall effectiveness.

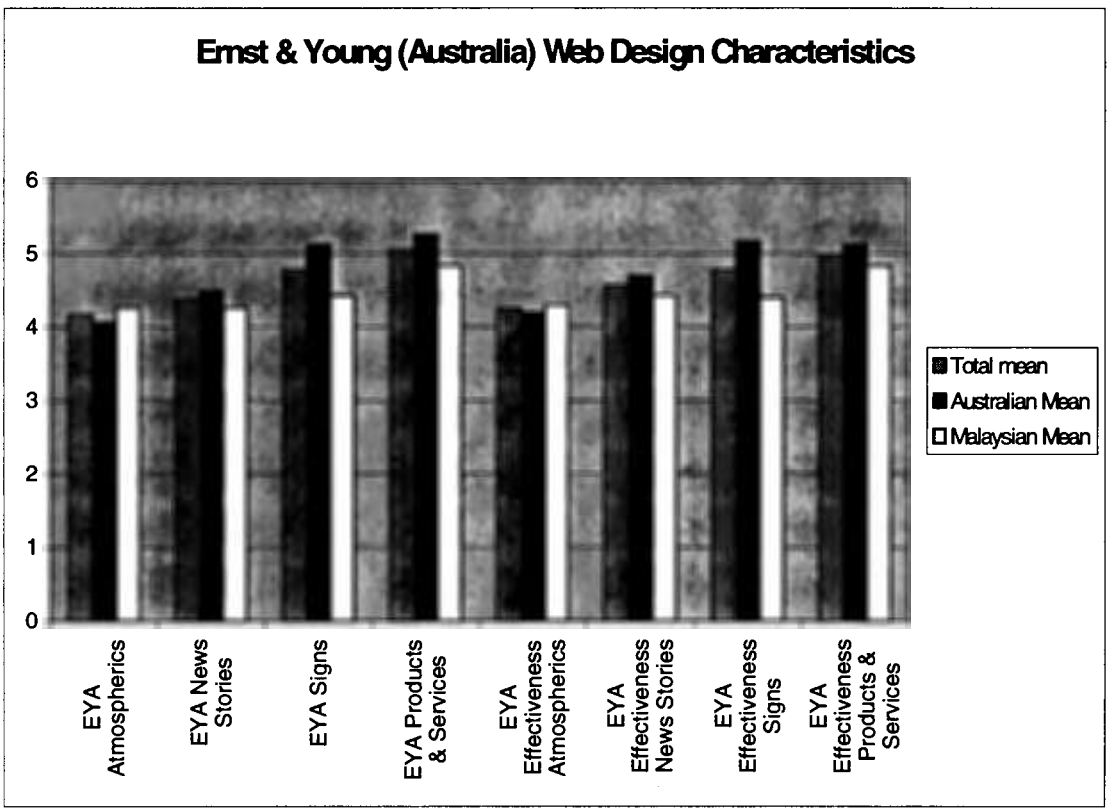

Figure 4.7 The means of the Ernst & Young (Australia) Web design characteristics

The Australian and Malaysian groups observed the variable 'products and services' as the most probable value on this site. The Australian group observed the variable 'effectiveness signs' as the most probable value for its impact on the overall

effectiveness while the Malaysian group observed the variable 'effectiveness products and services'. On the other hand, the Australian group observed the variable 'atmospherics' as the least probable value of EY(A) site while the Malaysian group observed both variables 'atmospherics' and 'news stories' as the least probable value. Both groups observed the variable 'effectiveness atmospherics' as the least probable value for its impact on the overall effectiveness on this site.

As shown in Figure 4.7, there is a large difference of means between both groups on the variable 'signs' and also on the variable 'effectiveness signs'. The statistical significant differences in these variables will be considered later.

Ernst & Young (Malaysia)

Figure 4.8 illustrates that the means differences of the Australian and Malaysian groups on Ernst & Young (Malaysia) site by observing the Web design characteristics and their impact on the overall effectiveness.

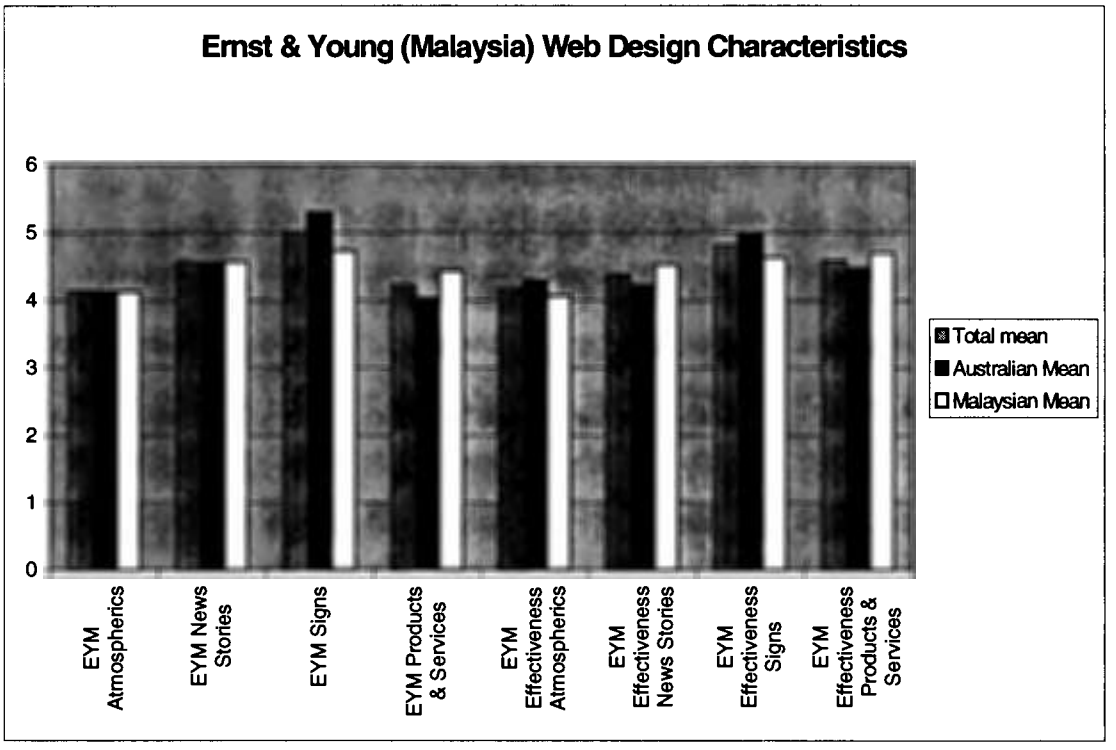

Figure 4.8 The means of the Ernst & Young (Malaysia) Web design characteristics

The Australian and Malaysian groups observed the variable 'signs' as the most probable value on this site. The Australian group observed the variable 'effectiveness signs' as the most probable value for its impact on the overall effectiveness while the Malaysian group observed the variable 'effectiveness products and services' as the most probable value for its impact on the overall effectiveness. On the other hand, the Australian and Malaysian groups observed the variable 'atmospherics' as the least probable value of EY(M) site. The Australian group observed the variable 'effectiveness news stories' as the least probable value for its impact on the overall effectiveness while the Malaysian group observed the variable 'effectiveness atmospherics' as the least probable value for its impact on the overall effectiveness.

As shown in Figure 4.8, there is a large difference of means between both groups on the variable 'signs' and also on the variable 'effectiveness signs'. The statistical significant differences in these variables will be considered later.

As part of this study, histograms of each variable on each investigated Web sites are attached in Appendix B. The majority of the histograms from each variable show skewness, in which the distribution of data stretches toward one tail or the other.

Validity, Reliability And Distribution Of Data

Validity and reliability are the principal measurement of the 'goodness' of the data collected by the researcher. The purpose of measurement is to measure what we intend to measure (Zikmund, 1997). The measurement should measure what is claimed for and be consistent (Anderson & Poole, 1994).

Validity is the ability of a scale or measuring instrument to measure what is intended to be measured. It measures how well a technique, instrument or process measures the particular thing it is supposed to measure (Sekaran, 1984). In this study, two types of validity are considered: Content and construct validity.

Reliabity is the consistency or stability of empirical indicators from measurement to measurement. A reliable instrument generates the same results on repeated measures (Decker, 1997). This study will use inter-item correlation for measuring its consistency through *Cronbach's Alpha.*

Validity

Content validity refers to "a representative sampling of a whole set of items that could measure the concept" (Sekaran, 1984, p. 156). In other words, a measurement system covers all the dimensions of a concept or variable. According to Davis and Consenza (1988), content validity can be assured by:

1. Conducting an exhaustive search of the literature for all possible items to be included in the scale.
2. Solicit expert opinions on the inclusion of items.
3. Pre-test the scale on a set of respondents similar to the population to be studied.
4. Modify the scale based on point 2 and 3 as necessary.

Content validity of the questionnaires was presumed on the basis a comprehensive search of the literature for all-inclusive possible items had been conducted and expert opinions of the supervisor had been supplicated.

Construct validity refers to "the degree to which inferences can legitimately be made from the operationalisations in your study to the theoretical constructs on which those operationalisations were based" (Trochim, 1996, p.1). In other words, the empirical evidence should be consistent with the theoretical logic about the concepts. According to Davis and Consenza (1988), assuring construct validity can be done by pre-testing the scale to respondents within similar population and modifying the scale using the suggestions from the expert opinions and the pre-testing results.

Table 4.11 Results of U-test in feeling of the presence of recent news on Web sites

Web sites	Variables	Mean	Std. Dev.	U-value	p
DS	News Stories (Malaysians)	2.633	1.377	352.5	0.135
	News Stories (Australians)	2.167	1.455		
CSTR	News Stories (Malaysians)	4.167	1.510	333.5	0.076*
	News Stories (Australians)	4.800	1.562		
VIS	News Stories (Malaysians)	3.900	1.729	446.0	0.952
	News Stories (Australians)	3.933	1.837		
NS	News Stories (Malaysians)	4.333	1.712	343.0	0.108
	News Stories (Australians)	3.500	1.996		
A(A)	News Stories (Malaysians)	5.033	1.426	368.5	0.218
	News Stories (Australians)	5.433	1.591		
A(M)	News Stories (Malaysians)	4.833	1.642	386.0	0.334
	News Stories (Australians)	5.200	1.448		
EY(A)	News Stories (Malaysians)	4.267	1.596	410.0	0.548
	News Stories (Australians)	4.500	1.796		
EY(M)	News Stories (Malaysians)	4.567	1.478	448.0	0.976
	News Stories (Australians)	4.567	1.547		

*$p < .10$

Table 4.11 shows that the probability associated with a U(333.5) is 0.076 on Café St. Tropez Restaurant (CSTR). A p value of 0.076 is significant at $p < 0.10$, hence there is no significant difference between the Malaysian and Australian group in feeling the presence of recent news (news stories) on CSTR site. Since other significant differences are not found, as shown in Table 4.11, there are no significant differences on the Web sites. Thus, hypothesis two is partially accepted.

Although the hypothesis two is partially accepted, the direction is on the reverse, which is not statistically significant. The reverse direction is that the Malaysian group has a weaker feeling than the Australian group, since $\mu_M(4.167) < \mu_A(4.800)$.

Hypothesis Three

A Mann-Whitney U test was carried out to test the hypothesis exhibited below:

H3: The Malaysian group will have a stronger feeling about the impact of the logos (signs) on Web sites than the Australian group.

Table 4.12 Results of U-test in feeling of the impact of the logos on Web sites

Web sites	Variables	Mean	Std. Dev.	U-value	p
DS	Signs (Malaysians)	4.733	1.337	354.5	0.145
	Signs (Australians)	5.167	1.392		
CSTR	Signs (Malaysians)	4.267	1.507	351.5	0.138
	Signs (Australians)	4.833	1.440		
VIS	Signs (Malaysians)	3.600	1.870	416.5	0.614
	Signs (Australians)	3.433	1.837		
NS	Signs (Malaysians)	2.967	1.712	444.0	0.928
	Signs (Australians)	3.100	2.090		
A(A)	Signs (Malaysians)	3.633	1.450	435.0	0.821
	Signs (Australians)	3.600	1.754		
A(M)	Signs (Malaysians)	3.633	1.542	388.5	0.354
	Signs (Australians)	3.300	1.643		
EY(A)	Signs (Malaysians)	4.433	1.813	353.5	0.146
	Signs (Australians)	5.133	1.358		
EY(M)	Signs (Malaysians)	4.733	1.530	351.5	0.135
	Signs (Australians)	5.300	1.343		

Table 4.12 shows that the probability associated with U-values are not significant. For example, a U-value of 354.5 for Dewsons Supermarket site has the p value of 0.145, therefore there is no significant difference between the Malaysian and

Australian group in feeling about the impact of the logos (signs). Thus, hypothesis three is rejected.

Hypothesis Four

A Mann-Whitney U test was carried out to test the hypothesis exhibited below:

H4: The Australian group will perceive a stronger encouragement to look at other pages because of the display of products and services on Web sites than the Malaysian group.

Table 4.13 Results of U-test in perceiving encouragement of the display of products and services on Web sites

Web sites	Variables	Mean	Std. Dev.	U-value	p
DS	Products and Services (Malaysians)	4.033	1.691	276.5	0.009**
	Products and Services (Australians)	5.133	1.493		
CSTR	Products and Services (Malaysians)	5.500	1.253	381.0	0.277
	Products and Services (Australians)	5.767	1.040		
VIS	Products and Services (Malaysians)	4.867	1.795	413.0	0.578
	Products and Services (Australians)	4.567	2.046		
NS	Products and Services (Malaysians)	5.233	1.633	299.0	0.023*
	Products and Services (Australians)	4.[illegible]7	1.859		
A(A)	Products and Services (Malaysians)	4.167	1.642	443.0	0.916
	Products and Services (Australians)	4.133	1.814		
A(M)	Products and Services (Malaysians)	4.033	1.921	409.0	0.539
	Products and Services (Australians)	3.700	1.860		
EY(A)	Products and Services (Malaysians)	4.833	1.464	371.5	0.229
	Products and Services (Australians)	5.267	1.437		
EY(M)	Products and Services (Malaysians)	4.433	1.569	374.5	0.255
	Products and Services (Australians)	4.033	1.299		

** $p < .01$; * $p < .05$

Table 4.13 shows that the probability associated with an U(276.5) is 0.009. A p value of 0.009 is significant at $p < 0.01$, there is significant difference between the Malaysian and Australian group in perceiving encouragement to look at other pages because of the display of products and services on Netcard Station site.

In addition, the p value of 0.023 is significant at $p < 0.05$, therefore there is significant difference between both groups in perceiving encouragement to look at other pages because of the display of products and services on Dewsons Supermarket site. Since other significant differences are not found, as shown in Table 4.13, there are no significant differences on other Web sites. Thus, hypothesis four is partially accepted.

Although hypothesis four is partially accepted, the direction is on the reverse for Netcard Station site, which is not statistically significant. The reverse direction is that the Australian group has a weaker feeling than the Malaysian group, since $\mu_A(4.167) < \mu_M(5.233)$.

Hypothesis Five

A Wilcoxon Signed-Rank test was carried out to test the hypothesis exhibited below:

H5: The Malaysian group will perceive the impact of atmospherics significantly higher than the impact of other design characteristics on the overall effectiveness of Web sites.

Table 4.14 Results of Wilcoxon Signed-Rank test for the impact of atmospherics (Malaysian)

Web sites	Variables	Mean	Std. Dev.	Variables	Mean	Std. Dev.	Z-value	p
DS	Atmospherics	4.067	1.639	News Stories	3.033	1.273	-2.835	0.005***
	Atmospherics	4.067	1.639	Signs	4.667	1.155	-1.565	0.118
	Atmospherics	4.067	1.639	Products and Services	4.567	1.455	-1.564	0.118
CSTR	Atmospherics	5.367	1.245	News Stories	4.233	1.612	-3.415	0.001***
	Atmospherics	5.367	1.245	Signs	4.400	1.429	-3.242	0.001***
	Atmospherics	5.367	1.245	Products and Services	5.167	0.986	-0.920	0.357
VIS	Atmospherics	3.700	1.822	News Stories	4.233	1.813	-1.763	0.078*
	Atmospherics	3.700	1.822	Signs	3.900	1.788	-1.860	0.063*
	Atmospherics	3.700	1.822	Products and Services	4.733	1.741	-3.711	0.000***
NS	Atmospherics	4.067	1.701	News Stories	4.467	1.737	-1.541	0.123
	Atmospherics	4.067	1.701	Signs	3.400	1.923	-2.116	0.034**
	Atmospherics	4.067	1.701	Products and Services	5.167	1.783	-3.903	0.000***
A(A)	Atmospherics	3.967	1.497	News Stories	4.433	1.406	-1.775	0.076*
	Atmospherics	3.967	1.497	Signs	3.767	1.431	-0.991	0.322
	Atmospherics	3.967	1.497	Products and Services	4.600	1.694	-2.219	0.027**
A(M)	Atmospherics	3.900	1.583	News Stories	4.433	1.431	-2.064	0.039**
	Atmospherics	3.900	1.583	Signs	3.700	1.622	-0.963	0.335
	Atmospherics	3.900	1.583	Products and Services	4.667	1.845	-2.452	0.014**
EY(A)	Atmospherics	4.300	1.685	News Stories	4.433	1.633	-0.099	0.921
	Atmospherics	4.300	1.685	Signs	4.400	1.694	-0.305	0.760
	Atmospherics	4.300	1.685	Products and Services	4.833	1.510	-2.032	0.042**
EY(M)	Atmospherics	4.067	1.552	News Stories	4.533	1.525	-1.506	0.132
	Atmospherics	4.067	1.552	Signs	4.633	1.608	-2.399	0.016**
	Atmospherics	4.067	1.552	Products and Services	4.700	1.579	-2.504	0.012**

*** $p < .01$; ** $p < .05$; * $p < .10$

Table 4.14 shows p values of 0.078, 0.063, and 0.000 are significant at p < (0.10, 0.10, and 0.01) for Value-I-Store, therefore there are significant differences between atmospherics and other design characteristics on the overall effectiveness on this site. Since no other significant differences are found to support hypothesis 5, there are no significant differences on other Web sites. Thus, hypothesis five is partially accepted.

Although hypothesis five is partially accepted, the direction is on the reverse for VIS site, which is not statistically significant. The reverse direction is that the Malaysian group perceives the impact of atmospherics significantly lower than the impact of other design characteristics on overall effectiveness, $\mu_{atmospherics}(3.700) < \mu_{others}(4.233, 3.900, 4.733)$.

In other cases, atmospherics is significantly higher, but not for all the other characteristics on the Web sites (e.g. Dewson Supermarket site).

Hypothesis Six

A Wilcoxon Signed-Rank test was carried out to test the hypothesis exhibited below:

H6: The Australian group will perceive the impact of the display of products and services significantly higher than the impact of other design characteristics on the overall effectiveness of Web sites.

Table 4.15 Results of Wilcoxon Signed-Rank test for the impact of products and services (Australian)

Web sites	Variables	Mean	Std. Dev.	Variables	Mean	Std. Dev.	Z-value	P
DS	Products & Services	4.800	1.540	Atmospherics	4.667	1.493	-0.363	0.716
	Products & Services	4.800	1.540	News Stories	2.033	1.066	-4.476	0.000***
	Products & Services	4.800	1.540	Signs	5.067	1.461	-1.051	0.293
CSTR	Products & Services	5.667	1.348	Atmospherics	5.500	1.280	-0.831	0.406
	Products & Services	5.667	1.348	News Stories	4.600	1.453	-3.410	0.001***
	Products & Services	5.667	1.348	Signs	5.167	1.440	-2.001	0.045**
VIS	Products & Services	4.900	1.729	Atmospherics	3.767	2.063	-3.346	0.001***
	Products & Services	4.900	1.729	News Stories	3.700	1.784	-3.473	0.001***
	Products & Services	4.900	1.729	Signs	4.067	1.874	-3.327	0.001***
NS	Products & Services	4.467	1.776	Atmospherics	3.567	1.813	-2.919	0.004***
	Products & Services	4.467	1.776	News Stories	3.233	1.736	-3.433	0.001***
	Products & Services	4.467	1.776	Signs	3.767	1.612	-2.575	0.010**
A(A)	Products & Services	4.467	1.756	Atmospherics	4.167	1.599	-0.927	0.354
	Products & Services	4.467	1.756	News Stories	4.867	1.613	-1.150	0.250
	Products & Services	4.467	1.756	Signs	3.833	1.683	-2.014	0.044**
A(M)	Products & Services	4.433	1.794	Atmospherics	3.833	1.416	-2.059	0.039**
	Products & Services	4.433	1.794	News Stories	4.700	1.705	-0.726	0.468
	Products & Services	4.433	1.794	Signs	3.600	1.610	-2.770	0.006***
EY(A)	Products & Services	5.133	1.548	Atmospherics	4.200	1.669	-2.960	0.003***
	Products & Services	5.133	1.548	News Stories	4.700	1.765	-1.502	0.133
	Products & Services	5.133	1.548	Signs	5.167	1.262	-0.112	0.911
EY(M)	Products & Services	4.467	1.408	Atmospherics	4.300	1.368	-0.697	0.486
	Products & Services	4.467	1.408	News Stories	4.233	1.654	-1.096	0.273
	Products & Services	4.467	1.408	Signs	5.000	1.486	-1.979	0.048**

*** $p < .01$; ** $p < .05$

Table 4.15 shows p values of 0.001, 0.001, and 0.001 are all significant at $p < 0.01$ for Value-I-Store site, therefore there are significant differences between the display of products and services and other design characteristics on the overall effectiveness of this site. Other p values of 0.004, 0.001, and 0.010 are also significant at $p <$ (0.01, 0.01 and 0.05) for Netcard Station site, there are significant differences

between the display of products and services and other design characteristics on the overall effectiveness of this site. Thus, hypothesis six is partially accepted.

The Australian group perceives the impact of the display of products and services significantly higher than the impact of other design characteristics on the overall effectiveness of VIS and NS sites. The means of VIS and NS are used to explain: $\mu_{products\ \&\ services}(4.900) > \mu_{others}(3.767, 3.700, 4.067)$; $\mu_{products\ \&\ services}(4.467) > \mu_{others}(3.567, 3.233, 3.767)$.

In other cases, products and services are significantly higher, but not for all the other characteristics of Web sites (e.g. Amway (Malaysia)).

Hypothesis Seven

A Mann-Whitney U test was carried out to test the hypothesis exhibited below:

H7: The Malaysian group will perceive the impact of atmospherics on the overall effectiveness of Web sites significantly higher than the Australian group.

Table 4.16 Results of U-test in perceiving the impact of atmospherics on the overall effectiveness of Web sites

Web sites	Variables Overall Effectiveness	Mean	Std. Dev.	U-value	p
DS	Atmospherics (Malaysians)	4.067	1.639	362.0	0.182
	Atmospherics (Australians)	4.667	1.493		
CSTR	Atmospherics (Malaysians)	5.367	1.245	413.5	0.576
	Atmospherics (Australians)	5.500	1.280		
VIS	Atmospherics (Malaysians)	3.700	1.822	446.0	0.952
	Atmospherics (Australians)	3.767	2.063		
NS	Atmospherics (Malaysians)	4.067	1.701	373.0	0.247
	Atmospherics (Australians)	3.567	1.813		
EY(A)	Atmospherics (Malaysians)	4.300	1.685	422.5	0.678
	Atmospherics (Australians)	4.200	1.669		
EY(M)	Atmospherics (Malaysians)	4.067	1.552	405.0	0.495
	Atmospherics (Australians)	4.300	1.368		
A(A)	Atmospherics (Malaysians)	3.967	1.367	430.5	0.769
	Atmospherics (Australians)	4.167	1.599		
A(M)	Atmospherics (Malaysians)	3.900	1.583	440.0	0.880
	Atmospherics (Australians)	3.833	1.416		

Table 4.16 shows that the probability associated with U-values are not significant. For example, a U-value of 362.0 for Dewsons Supermarket site has the p value of 0.182, therefore there is no significant difference between the Malaysian and Australian groups in perceiving the impact of atmospherics on the overall effectiveness of this site. Thus, hypothesis seven is rejected.

Hypothesis Eight

A Mann-Whitney U test was carried out to test the hypothesis exhibited below:

H8: The Australian group will perceive the impact of the display of products and services on the overall effectiveness of Web sites significantly higher than the Malaysian group.

Table 4.17 Results of U-test in perceiving the impact of the display of products and services on the overall effectiveness of Web sites

Web sites	Variables Overall Effectiveness	Mean	Std. Dev.	U-value	p
DS	Products and Services (Malaysians)	4.567	1.455	413.0	0.577
	Products and Services (Australians)	4.800	1.540		
CSTR	Products and Services (Malaysians)	5.167	0.986	303.5	0.025*
	Products and Services (Australians)	5.667	1.348		
VIS	Products and Services (Malaysians)	4.733	1.741	426.5	0.723
	Products and Services (Australians)	4.900	1.729		
NS	Products and Services (Malaysians)	5.167	1.783	341.5	0.103
	Products and Services (Australians)	4.467	1.776		
EY(A)	Products and Services (Malaysians)	4.833	1.510	389.5	0.357
	Products and Services (Australians)	5.133	1.548		
EY(M)	Products and Services (Malaysians)	4.700	1.579	389.5	0.360
	Products and Services (Australians)	4.467	1.408		
A(A)	Products and Services (Malaysians)	4.600	1.694	440.5	0.887
	Products and Services (Australians)	4.467	1.756		
A(M)	Products and Services (Malaysians)	4.667	1.845	423.0	0.685
	Products and Services (Australians)	4.433	1.794		

* $p < .05$

Table 4.17 shows that the probability associated with U(303.5) is 0.025 for Café St. Tropez Restaurant (CSTR). A p value of 0.025 is significant at $p < 0.05$, therefore there is significant difference between the Malaysian and Australian group in perceiving the impact of atmospherics on the overall effectiveness of this site. Thus, hypothesis eight is partially accepted.

The Australian group perceives the impact of the display of the products and services on the overall effectiveness of CSTR site is significantly higher than the Malaysian group, $\mu_A(5.667) > \mu_M(5.167)$.

Hypothesis Nine

A Kruskal-Wallis test was carried out to test the hypothesis exhibited below:

H9: The extent to which the Web is used to locate products, services and information has no impact on the way the Malaysian and the Australian groups perceive Web design characteristics and their impact on the overall effectiveness of Web sites.

Table 4.18 Results of Kruskal-Wallis test for the Australian group of Web usage (degree of freedom = 6)

Web sites	Variables	Mean	Std. Dev.	Chi-Square	p
DS	Atmospherics	4.433	1.455	4.045	0.671
	News stories	2.167	1.341	4.446	0.617
	Signs	5.167	1.392	5.196	0.519
	Products & Services	5.133	1.432	6.564	0.363
	Overall Effectiveness:				
	Atmospherics	4.667	1.493	2.585	0.859
	News stories	2.033	1.066	6.160	0.406
	Signs	5.067	1.461	4.318	0.634
	Products & Services	4.800	1.540	6.549	0.365
CSTR	Atmospherics	5.300	1.418	8.513	0.203
	News stories	4.800	1.562	1.636	0.950
	Signs	4.833	1.440	6.997	0.321
	Products & Services	5.767	1.040	5.262	0.511
	Overall Effectiveness:				
	Atmospherics	5.500	1.280	12.892	0.045**
	News stories	4.600	1.453	4.608	0.595
	Signs	5.167	1.440	5.950	0.429
	Products & Services	5.667	1.348	10.134	0.119
VIS	Atmospherics	3.533	1.995	8.498	0.204
	News stories	3.933	1.837	5.831	0.442
	Signs	3.433	1.870	8.121	0.229
	Products & Services	4.567	2.046	1.595	0.953
	Overall Effectiveness:				
	Atmospherics	3.767	2.063	7.873	0.248
	News stories	3.700	1.784	7.323	0.292
	Signs	4.067	1.874	6.003	0.423
	Products & Services	4.900	1.729	6.348	0.385
NS	Atmospherics	3.433	1.794	14.042	0.029**
	News stories	3.500	1.996	10.665	0.099*
	Signs	3.100	2.090	7.922	0.244
	Products & Services	4.167	1.859	8.777	0.187
	Overall Effectiveness:				
	Atmospherics	3.567	1.813	9.945	0.127
	News stories	3.233	1.736	12.776	0.047**
	Signs	3.767	1.612	7.555	0.273
	Products & Services	4.467	1.776	9.606	0.142

*** p < .05; * p < .10*

Table 4.18 Results of Kruskal-Wallis test for the Australian group of Web usage (degree of freedom = 6) (Continued)

Web sites	Variables (N=30)	Mean	Std. Dev.	Chi-Square	p
A(A)	Atmospherics	4.400	1.522	10.657	0.100
	News stories	5.433	1.591	3.875	0.694
	Signs	3.600	1.754	0.728	0.994
	Products & Services	4.133	1.814	10.107	0.120
	Overall Effectiveness:				
	Atmospherics	4.167	1.599	9.928	0.128
	News stories	4.867	1.613	10.124	0.120
	Signs	3.833	1.683	3.976	0.680
	Products & Services	4.467	1.756	6.373	0.346
A(M)	Atmospherics	3.800	1.495	7.052	0.316
	News stories	5.200	1.448	2.484	0.870
	Signs	3.300	1.643	1.786	0.938
	Products & Services	3.700	1.860	10.384	0.109
	Overall Effectiveness:				
	Atmospherics	3.833	1.416	10.171	0.118
	News stories	4.700	1.705	6.607	0.359
	Signs	3.600	1.610	4.705	0.582
	Products & Services	4.433	1.794	7.548	0.273
EY(A)	Atmospherics	4.067	1.484	13.437	0.037**
	News stories	4.500	1.796	6.580	0.361
	Signs	5.133	1.358	2.221	0.898
	Products & Services	5.267	1.437	12.164	0.058*
	Overall Effectiveness:				
	Atmospherics	4.200	1.669	11.335	0.079*
	News stories	4.700	1.765	6.727	0.347
	Signs	5.167	1.262	2.360	0.884
	Products & Services	5.133	1.548	15.100	0.019**
EY(M)	Atmospherics	4.133	1.592	9.042	0.171
	News stories	4.567	1.547	3.312	0.769
	Signs	5.300	1.343	4.361	0.628
	Products & Services	4.033	1.299	10.544	0.104
	Overall Effectiveness:				
	Atmospherics	4.300	1.368	10.587	0.102
	News stories	4.233	1.654	6.851	0.335
	Signs	5.000	1.486	4.363	0.628
	Products & Services	4.467	1.408	6.451	0.375

*** p < .05; * p < .10*

Table 4.18 shows that a p value of 0.045 for Café St. Tropez Restaurant is significant at $p < 0.05$, therefore the extent to which the Web is used to locate products,

services or information has impact on the way the Australian group perceives the variable 'effectiveness atmospherics'.

The p values of 0.029, 0.099, and 0.047 are found significant at $p < (0.05, 0.10,$ and $0.05)$ for Netcard Station, therefore the extent of Web usage has impact on the way the Australian group perceives the variables 'atmospherics', 'news stories', and 'effectiveness news stories'. Another p values of 0.037, 0.058, 0.079, and 0.019 are found significant at $p < (0.05, 0.10, 0.10,$ and $0.05)$ for Ernst & Young (Australia), therefore the extent of Web usage has impact on the way this group perceives the variables 'atmospherics', 'products and services', 'effectiveness atmospherics', and 'effectiveness products and services'.

Table 4.19 illustrates that p values are not found significant. Therefore the extent to which the Web is used to locate products, services or information has no impact on the way the Malaysian group perceives the Web design characteristics and their impact on the overall effectiveness. Thus, hypothesis nine is partially accepted.

Table 4.19 Results of Kruskal-Wallis test for the Malaysian group of Web usage (degree of freedom = 6)

Web sites	Variables	Mean	Std. Dev.	Chi-Square	p
DS	Atmospherics	4.433	1.259	5.581	0.472
	News stories	2.167	1.377	6.167	0.405
	Signs	5.167	1.337	4.575	0.599
	Products & Services	5.133	1.691	8.502	0.204
	Overall Effectiveness:				
	Atmospherics	4.667	1.639	2.086	0.912
	News stories	2.033	1.273	10.205	0.116
	Signs	5.067	1.155	6.222	0.399
	Products & Services	4.800	1.455	6.082	0.414
CSTR	Atmospherics	5.300	1.149	6.962	0.324
	News stories	4.800	1.510	5.049	0.538
	Signs	4.833	1.507	9.280	0.158
	Products & Services	5.767	1.253	5.661	0.462
	Overall Effectiveness:				
	Atmospherics	5.500	1.245	6.689	0.351
	News stories	4.600	1.612	6.733	0.346
	Signs	5.167	1.429	6.217	0.399
	Products & Services	5.667	0.986	5.917	0.433
VIS	Atmospherics	3.533	1.710	4.717	0.581
	News stories	3.933	1.729	4.189	0.651
	Signs	3.433	1.610	4.908	0.556
	Products & Services	4.567	1.795	8.440	0.208
	Overall Effectiveness:				
	Atmospherics	3.767	1.822	4.117	0.661
	News stories	3.700	1.813	4.932	0.553
	Signs	4.067	1.788	3.528	0.740
	Products & Services	4.900	1.741	5.517	0.479
NS	Atmospherics	3.433	1.838	6.423	0.377
	News stories	3.500	1.845	8.306	0.217
	Signs	3.100	1.712	5.961	0.428
	Products & Services	4.167	1.633	8.358	0.213
	Overall Effectiveness				
	Atmospherics	3.567	1.701	6.303	0.390
	News stories	3.233	1.737	3.981	0.679
	Signs	3.767	1.923	4.634	0.592
	Products & Services	4.467	1.783	7.029	0.318

Table 4.19 Results of Kruskal-Wallis test for the Malaysian group in the impact of Web usage on each variable of Web sites (degree of freedom = 6) (Continued)

Web sites	Variables	Mean	Std. Dev.	Chi-Square	p
A(A)	Atmospherics	4.400	1.367	2.735	0.841
	News stories	5.433	1.426	6.665	0.353
	Signs	3.600	1.450	5.673	0.461
	Products & Services	4.133	1.642	2.504	0.868
	Overall Effectiveness:				
	Atmospherics	4.167	1.497	4.340	0.631
	News stories	4.867	1.406	6.330	0.387
	Signs	3.833	1.431	4.214	0.648
	Products & Services	4.467	1.694	4.043	0.671
A(M)	Atmospherics	3.800	1.462	2.001	0.920
	News stories	5.200	1.642	6.353	0.385
	Signs	3.300	1.542	4.995	0.544
	Products & Services	3.700	1.921	3.115	0.794
	Overall Effectiveness:				
	Atmospherics	3.833	1.583	3.807	0.703
	News stories	4.700	1.431	6.681	0.351
	Signs	3.600	1.622	2.723	0.843
	Products & Services	4.433	1.845	3.562	0.736
EY(A)	Atmospherics	4.067	1.741	2.542	0.864
	News stories	4.500	1.596	8.513	0.203
	Signs	5.133	1.813	4.089	0.665
	Products & Services	5.267	1.464	3.110	0.795
	Overall Effectiveness:				
	Atmospherics	4.200	1.685	2.017	0.918
	News stories	4.700	1.633	5.940	0.430
	Signs	5.167	1.694	3.560	0.736
	Products & Services	5.133	1.510	4.229	0.636
EY(M)	Atmospherics	4.133	1.592	3.383	0.759
	News stories	4.567	1.478	5.313	0.504
	Signs	5.300	1.530	5.034	0.539
	Products & Services	4.033	1.569	4.963	0.549
	Overall Effectiveness:				
	Atmospherics	4.300	1.552	3.642	0.725
	News stories	4.233	1.525	5.080	0.534
	Signs	5.000	1.608	5.447	0.488
	Products & Services	4.467	1.579	2.413	0.878

Table 4.20 Summary of the results of hypotheses testing

Hypotheses	Results
H1: The Malaysian group will have a stronger feeling about the virtual presence (atmospherics) on Web sites than the Australian group.	The hypothesis is rejected.
H2: The Malaysian group will have a stronger feeling about the presence of news (news stories) on Web sites than the Australian group.	The hypothesis is partially accepted since it applies to CSTR site, but the direction is in the reverse.
H3: The Malaysian group will have a stronger feeling about the impact of the logos (signs) on Web sites than the Australian group.	The hypothesis is rejected.
H4: The Australian group will perceive a stronger encouragement to look at other pages because of the display of products and services on Web sites than the Malaysian group.	The hypothesis is partially accepted since it applies to DS and NS sites. A reverse direction is found on DS site.
H5: The Malaysian group will perceive the impact of atmospherics significantly higher than the impact of other design characteristics on the overall effectiveness of Web sites.	The hypothesis is partially accepted since it applies to VIS site, but the direction is in the reverse.
H6: The Australian group will perceive the impact of the display of products and services significantly higher than the impact of other design characteristics on the overall effectiveness of Web sites.	The hypothesis is partially accepted since it applies to VIS and NS sites.
H7: The Malaysian group will perceive the impact of atmospherics on the overall effectiveness of Web sites significantly higher than the Australian group.	The hypothesis is rejected.

Table 4.21 Summary of the results of hypotheses testing (Continued)

Hypotheses	Results
H8: The Australian group will perceive the impact of the display products and services on the overall effectiveness of Web sites significantly higher than the Malaysian group.	The hypothesis is partially accepted since it applies to CSTR site.
H9: The extent to which the Web is used to locate products, services and information has no impact on the way the Malaysian and the Australian groups perceive Web design characteristics and their impact on the overall effectiveness of Web sites.	The hypothesis is partially accepted since it applies to the Australian group.

CHAPTER 5: DISCUSSION OF FINDINGS

This chapter presents the review of research purposes and approaches, and followed by three major sections.

- The first section discusses the perceptual differences of Web design characteristics and their impact on the overall effectiveness between Australians and Malaysians (Inter group).
- The second section discusses the impact of Web design characteristics on the overall effectiveness of Web sites within Australians and Malaysians (Intra group).
- The third section describes the moderating effect (i.e. the impact of Web usage and its association) between the Australian and Malaysian groups.

Review Of Research Purposes And Approaches

This study was designed to determine Asian and Western perceptual differences of Web design characteristics and their effectiveness through controlled experimentation. In particular, the study sought to examine how Malaysian and Australian people perceive the Web for locating products, services or information to the extent of electronic commerce.

The purpose of the research was to determine whether or not Asian (i.e. Malaysians) / Western (i.e. Australians) differences are evident in the way Web sites, used for marketing, are designed and perceived. Specifically, the study selected

Malaysian and Australian based Web sites and had them evaluated by Malaysian and Australian Web users as representatives of two different cultures. The objective was to establish significant differences in the way the Web design characteristics and their effectiveness of Web sites were perceived by the two nationalities. The findings should assist Australian organisations to improve the marketing of their products and services in Malaysia and for Malaysian organisations in marketing their products and services in Australia.

The study was initiated with a literature review of the Internet technology and electronic commerce applications. The technology of the Internet provides a range of services, among others, e-mail, live conferences, and the WWW. The latter was the focus of this study. Business applications (i.e. marketing, advertising, customer service) can generate more profit with the use of EC, particularly in the area of financial services, retailing, electronic publishing, and edutainment. The application of EC comprises marketing and advertising, customer service and support, new market and distribution channels development, and new information-based product development. Attracting new customers via marketing is the focus of this study.

Eight Web sites were justified subjectively from fourteen preliminary selections in order to identify the evidence of the Web design characteristics (i.e. atmospherics, news stories, signs, and products and services). The eight Web sites were observed by respondents to identify the presence, absence, and the form. Questionnaires were pilot tested by two Ph.D. students and one academic lecturer, who has marketing background. Respondents (i.e. Australian and Malaysian first year students) were

selected voluntarily and invited to the computer laboratory to complete the questionnaires under the controlled laboratory experimentation.

Controlled laboratory experimentation enables a problem to be studied where the variables (i.e. atmospherics, news stories, signs, and products and services) involved are known, but behaviour (i.e. the participants evaluation) is not. This approach settles on precision, which the researcher controls over the procedures and participants have to follow what the researcher requires them to do. For example, in this research subjects were not allowed to click on to other pages and they only were allowed to scroll the Web page up and down or left and right.

The data were collected and tested in line with the hypotheses. Several additional tests, which would facilitate in the discussion, were also conducted on the data.

Perceptual Differences Of Web Design Characteristics Between Malaysians And Australians (Inter Group)

The data analysis revealed differences in four of the Web sites, namely Dewsons Supermarket, Café St Tropez Restaurant, Netcard Station, and Ernst & Young (Australia). The direction the differences took and how they compared against the predicted directions, reflected in the hypotheses, are shown in Table 5.1. The study first identified how Malaysian and Australian perceptions differed from each other on the four sites before providing an overall assessment of the findings.

Table 5.1 Summary of Findings

H	Prediction	Findings
1	Atmospherics (Malaysians > Australians)	No significant difference (Malaysians = Australians)
2	News Stories (Malaysians > Australians)	Café St Tropez Restaurant (Australians > Malaysians)
3	Signs (Malaysians > Australians)	No significant difference (Malaysians = Australians)
4	Products and services (Australians > Malaysians)	Dewsons Supermarket (Australians > Malaysians) Netcard Station (Malaysians > Australians)
7	Impact of atmospherics on effectiveness (Malaysians > Australians)	No significant difference (Malaysians = Australians)
8	Impact of products & services on effectiveness (Australians > Malaysians)	Café St Tropez Restaurant (Australians > Malaysians)

Australians rated the attractiveness of Dewsons *Supermarket's products and services* (Figure 5.1) significantly higher than Malaysians. This finding confirmed Hypothesis 4.[4]

[4] H4: The Australian group will perceive a stronger encouragement to look at other pages because of the display of products and services on Web sites than the Malaysian group.

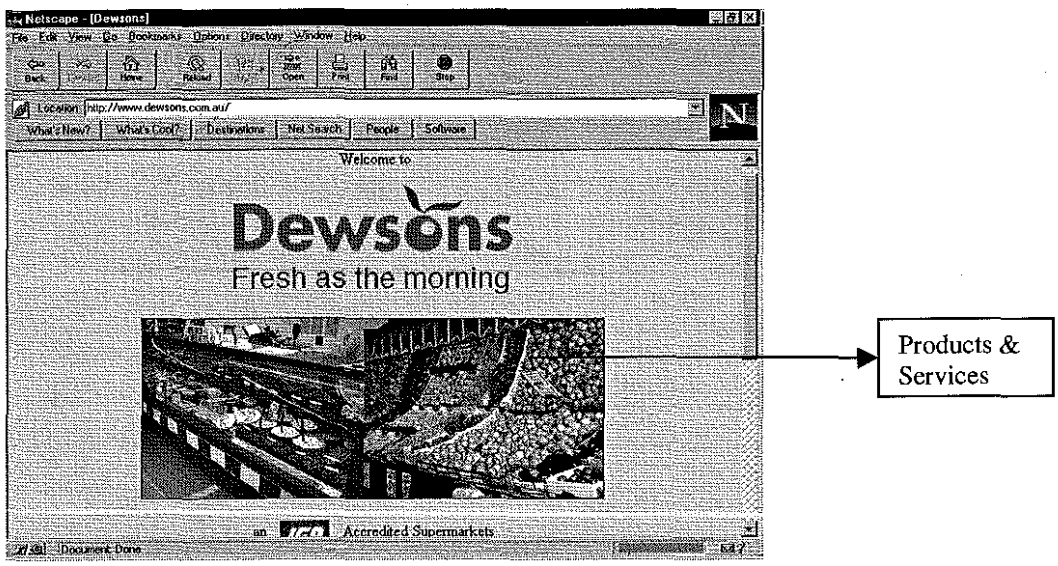

Figure 5.1 Dewsons Supermarket

The photographic pictures of meat, fruit, and vegetables provide a theme—an emotional organising concept that strikes a responsive chord in the Web site visitor's mind (Parker, 1997). In other words, the images evoke the visitors' feeling of a supermarket, which encourage surfers to look at other pages.

For Café St Tropez Restaurant, Australians provided higher ratings of their perceptions; these were for the Web design characteristic of *news stories* and the impact of *products and services* and *signs* on the overall effectiveness of this Web site (Figure 5.2). The finding that Australians rated news stories higher than Malaysians contradicts Hypothesis 2[5] but the finding that they rate the effectiveness of products and services higher than Malaysians supports Hypothesis 8.[6]

[5] H2: The Malaysian group will have a stronger feeling about the presence of news (news stories) on Web sites than the Australian group.
[6] H8: The Australian group will perceive the impact of the display products and services on the overall effectiveness of Web sites significantly higher than the Malaysian group.

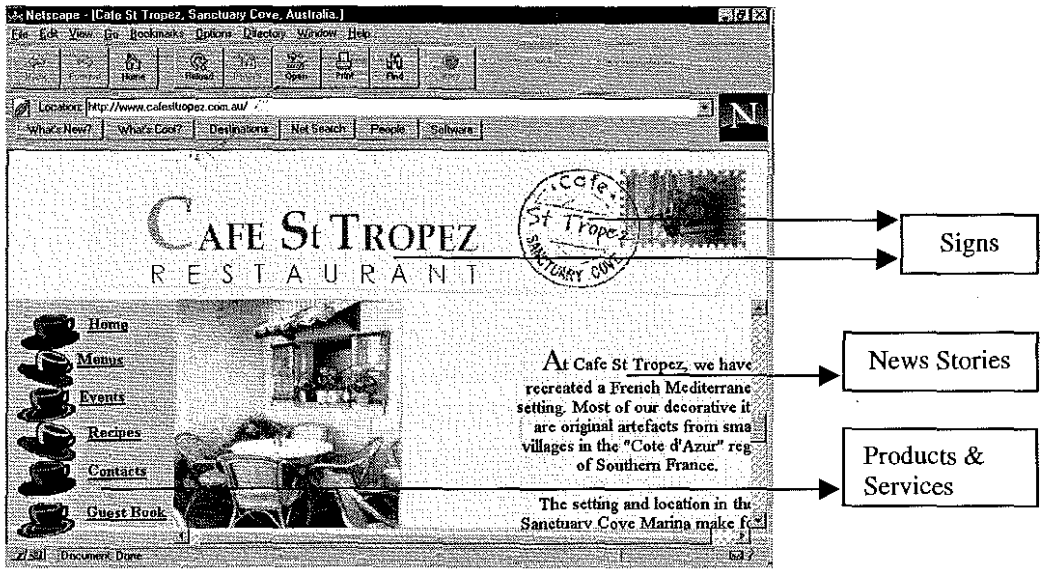

Figure 5.2 Café St Tropez Restaurant

The appearance of this site provides a clear image of a restaurant, which impressed by its look and feel from the images. Images are displayed attractively, such as a European style dining table, a postmark with the restaurant's name inside it and a postage flower stamp, and some information about the restaurant's location. Other images include crockery, wine bottles, lunch and dinner menus.

For the Netcard Station Web site (Figure 5.3), Malaysians perceived the Web design characteristic products and services higher than Australians which is in the opposite direction of the study prediction formulated in Hypothesis 4. Malaysians provided a higher rating for the impact of news stories on the overall effectiveness of this site.

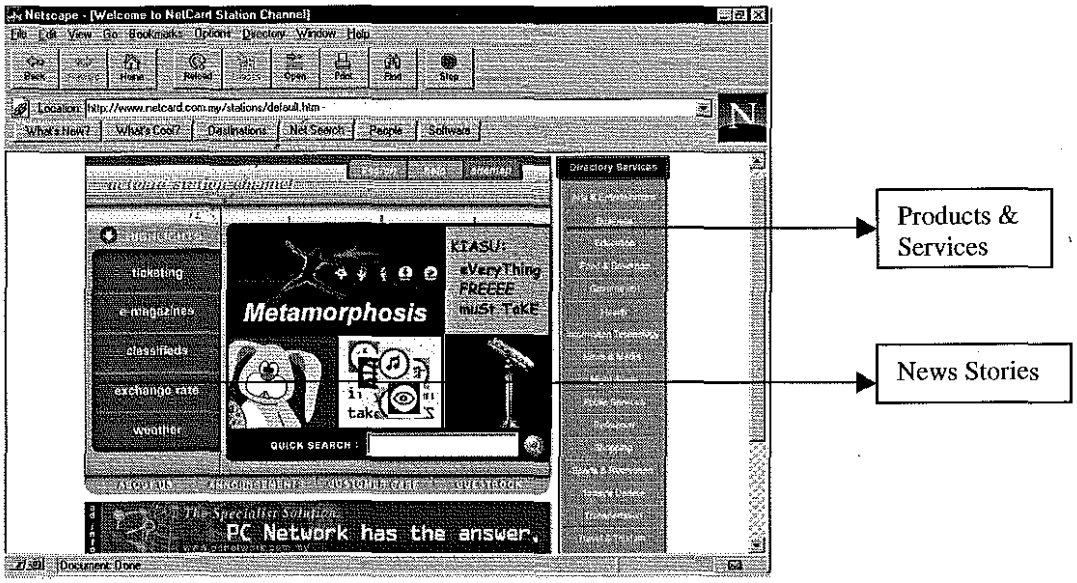

Figure 5.3 Netcard Station

The images of Netcard Station site appear to be more technology oriented if compared with the previous Web sites (i.e. Dewsons supermarket and Café St. Tropez Restaurant), that are visually attractive. The pictures in the middle and bottom of the Web page are flashing and the news stories are updated regularly.

For the Ernst & Young (Australia) site (Figure 5.4) only one significant difference was found, namely that Australians rated the impact of signs on overall effectiveness higher than Malaysians.

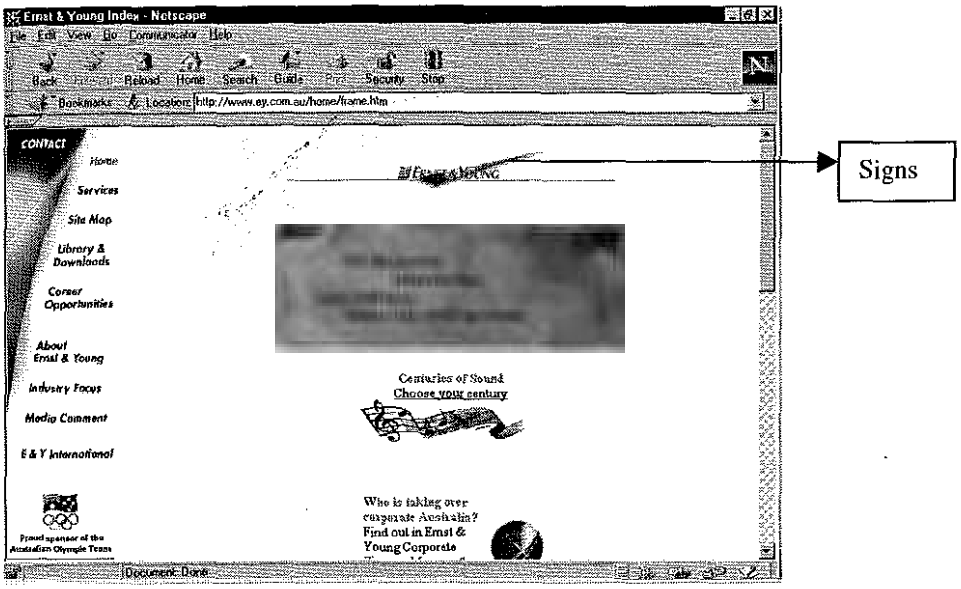

Figure 5.4 Ernst & Young (Australia)

The site has an arrow that moves toward the logo of Ernst & Young organisation. The box in the middle of the screen flashes and a few reports (i.e. electronic commerce report) are available on-line for downloading as well as a streaming audio of centuries of sound (i.e. classical music).

From the findings of the study a number of general observations can be made. First, there were not many differences between Australian and Malaysian perceptions of Web design characteristics and their impacts on the Web sites' overall effectiveness. A significant difference found for a Web design characteristic, was typically for one site only and not across all sites. Only in the case of products and services were differences observed for two sites. However, one observation confirmed the predicted direction of the difference and the other contradicted the predicted direction.

The underlying premise of the study, namely that the dominant culture (i.e. Asian, Australian) of a country is reflected in the perception of Web site, and is not

generalisable to the other cultures (Grovers et al., 1994), was not strongly reflected in the findings. This study expected consistent differences in the way Malaysians and Australian perceived the information presented to them on Web sites but this did not eventuate.

Second, significant differences between the two groups existed for four Web sites, three of which were Australian based and one was Malaysian based. In each case, these sites attracted higher ratings from their nationals. In other words, where Australian ratings exceeded those of Malaysian ratings it was always for Australian Web sites: Dewsons Supermarket, Café St Tropez Restaurant, Ernst & Young (Australia); and where Malaysian ratings exceeded those of Australian it was for a Malaysian Web site: Netcard Station.

Specific differences were encountered in the following.

- Significant differences for the Web design characteristic products and services were apparent in two of the four Web sites. The Web design characteristic is important because its main objective is to convert a potential customer to an actual customer by encouraging the person to examine the products and services in more depth. For the Dewsons Supermarket site, products were laid out graphically in bright colours (Figure 5.1), which appealed more to Australians. For the Netcard Station site (Figure 5.3), products were represented in descriptive, technical words which appealed more to the Malaysian group.

- The Café St Tropez Restaurant site (Figure 5.2) resulted in the most significant differences between the two groups' perceptions. The Web design characteristic of news stories, and the effectiveness of products and services and signs, was perceived higher by Australians than Malaysians. The site, therefore, appeared to be appealing to the culture of Australians who are renowned for their outdoor lifestyle and love of eating out, strikingly reflected in the picture. This lifestyle may not be as attractive to the young Malaysian students that took part in the study.

- In two of the Web sites (Café St Tropez Restaurant and Netcard Station) both products and services and news stories attracted significant inter-group differences. There may exist some relationship between them that is worth further study. For example, it could be argued that in order to maximise the impact of products and services displayed, they should be supported with news stories providing information about recent developments.

The study hypothesised that the predominant culture would not be generalised to another culture. Some tentative support for the research premise was found. Where a group's perceptions for the Web design characteristics and their effectiveness was significantly higher, it was for sites originating in that country. Furthermore, Asian/Western differences were pronounced for the Café St Tropez Restaurant Web site reflecting the outdoor, European Café life style found commonly in Australia and not encountered often in Malaysia. These findings provide some support for the premise that perceptions are associated with the country of origin. Organisations that

set out to market their products and services in another country would therefore be advised to have their Web sites designed by someone in that country.

On the other hand it can be argued that the study's findings showed no consistent, significant differences across all Web sites for all Web design characteristics between the Malaysian and Australian groups. This appears to indicate that members of both groups are citizens of the Web's global village in which consumer behaviours and values are converging.

The Impact Of Web Design Characteristics On The Overall Effectiveness Of Web Sites (Intra Group)

The data analysis revealed significant differences in two Web sites, namely Value-I-Store (VIS) and Netcard Station (NS), as shown in Table 4.15 and Table 4.16 in Chapter 4. Value-I-Store Web site was found significant by both groups while Netcard Station Web site was only found significant by the Australian group. Although significant differences are present, some of the findings are against the predicted directions, as shown in Table 5.2.

Table 5.2 Summary of findings of Intra-Group differences

H	Prediction	Finding
5	Impact of atmospherics > Impact of other Web design characteristics on effectiveness (Malaysians)	Value-I-Store (Impact of atmospherics < Impact of other Web design characteristics on effectiveness)
6	Impact of products and services > Impact of other Web design characteristics on effectiveness (Australians)	Value-I-Store (Impact of products and services > Impact of other Web design characteristics on effectiveness) Netcard Station (Impact of products and services > Impact of other Web design characteristics on effectiveness)

Australians rated the impact of *products and services* on Value-I-Store (Figure 5.5) and on Netcard Station (Figure 5.6), significantly higher than the impact of other Web design characteristics on the overall effectiveness. These findings confirmed Hypothesis 6.[7]

Malaysians, on the other hand, rated the impact of other Web design characteristics for Value-I-Store (Figure 5.5) significantly higher than the impact of *atmospherics* on the overall effectiveness. This finding contradicted Hypothesis 5.[8]

[7] H6: The Malaysian group will perceive the impact of the display of products and services significantly higher than the impact of other design characteristics on the overall effectiveness of Web sites.
[8] H5: The Malaysian group will perceive the impact of atmospherics significantly higher than the impact of other design characteristics on the overall effectiveness of Web sites.

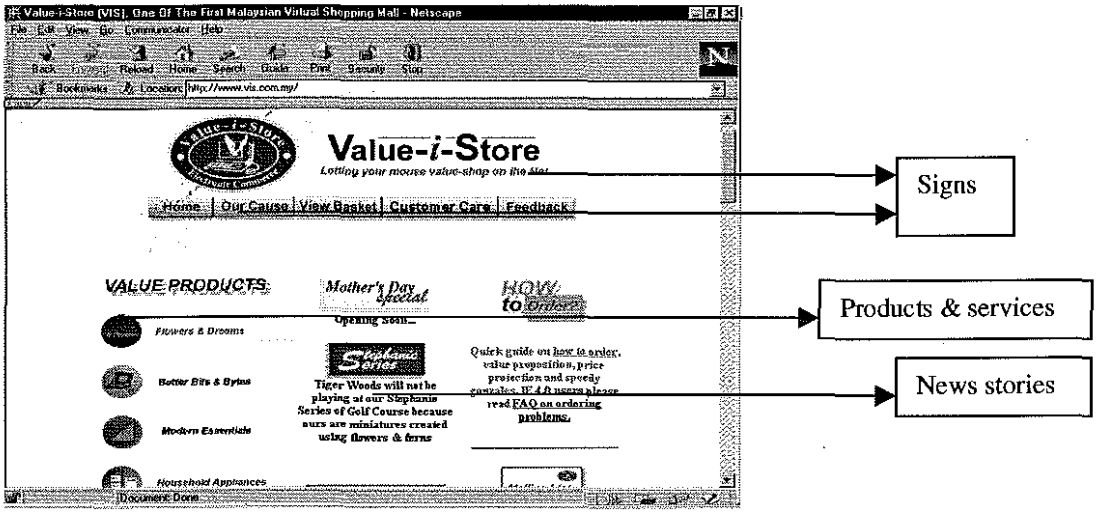

Figure 5.5 Value-I-Store

Figure 5.5 does not provide the Web design characteristic *atmospherics*. The appearance of this site is full of colour and icons and flashing text throughout the Web page. Many items are provided in this Web page among others, flowers and dreams, household appliance, video galleries, and computer software and hardware.

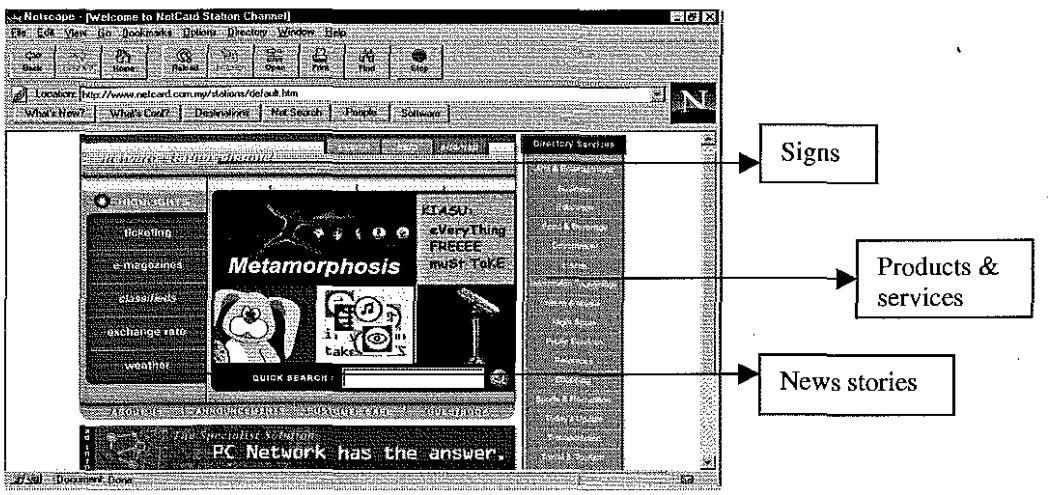

Figure 5.6 Netcard Station

Figure 5.6 does not provide the Web design characteristics *atmospherics*. The logo of Netcard Station does not create much impact because it is unclear (e.g. the combination and background colour of the logo).

From the findings above a number of general observations can be made in the following.

- Only two Web sites have significant differences found in the Australian group. In the two Web sites, the impact of *products and services* was significantly higher than the impact of other Web design characteristics on the overall effectiveness. The finding, the impact of *products and services* is higher than other Web design characteristics supported hypothesis 6 and also supported hypothesis 8 (see the previous section: inter-group differences). The prediction that Australians would look at other pages of the Web sites in order to get the business 'outcome', was reflected in this finding.

- Significant differences for the impact of *products and services* were apparent in two of the eight Web sites. Where a Web design characteristic is significantly higher than the impact of other Web design characteristics on the overall effectiveness, they are typically for one or two sites only and not across all sites. For example, in the Australian group, the differences were significantly found only on Value-I-Store and Netcard Station sites while in the Malaysian group, the differences were discovered significantly on Value-I-Store site only.

- The data analysis revealed the effectiveness of the VIS site attracted the attention of both Australians and Malaysians. The objective of this organisation is to create greater value for customers, employees, shareholders and the community in which the Value-I-Store operates (i.e. retailing, distribution, and servicing of products by selected quality powerhouses) (VIS, 1997). Thus it can be argued that the

development of electronic commerce is becoming more fluid and pervasive; the boundaries among people (i.e Customers or Web users), functions (i.e. Internet commerce) and corporations (i.e. VIS site) themselves are blurring (Bollier, 1997).

Some further comments for the effectiveness of Web sites design can be provided by exhibiting the highest ratings of the impact of design characteristics within the Australian and Malaysian groups, as shown in Table 5.3 and Table 5.4.

Table 5.3 The highest ratings of variables impact on overall effectiveness within the Australian group

Web sites	Variables Effectiveness	Mean	Std. Dev.
Dewsons Supermarket	Signs	5.067	1.461
Café St. Tropez Restaurant	Products and services	5.667	1.348
Value-I-Store	Products and services	4.900	1.729
Netcard Station	Products and services	4.467	1.776
Amway (Australia)	News stories	4.867	1.613
Amway (Malaysia)	News stories	4.700	1.705
Ernst & Young (Australia)	Signs	5.167	1.262
Ernst & Young (Malaysia)	Signs	5.000	1.486

Table 5.3 shows that Australians rated the Web design characteristics *products and services*, *signs*, and *news stories* as the highest impact on the overall effectiveness of Web sites. In the premise of the study, it can be argued that in order to design an effective Web site to the extent of Web usage for electronic commerce in Australia, the three Web design characteristics above need to be given thorough attention.

Table 5.4 The highest ratings of variables impact on overall effectiveness within the Malaysian group

Web sites	Variables	Mean	Std. Dev.
Dewsons Supermarket	Signs	4.667	1.155
Café St. Tropez Restaurant	Atmospherics	5.367	1.245
Value-I-Store	Products and services	4.733	1.741
Netcard Station	Products and services	5.167	1.783
Amway (Australia)	Products and services	4.600	1.694
Amway (Malaysia)	Products and services	4.667	1.845
Ernst & Young (Australia)	Products and services	4.833	1.510
Ernst & Young (Malaysia)	Products and services	4.700	1.579

Table 5.4 shows that *products and services* determined Web site overall effectiveness for Malaysians. On the basis of the study premise, it can be argued the extent of Web usage for electronic commerce in Malaysia, Web site design should emphasise Web design characteristic *products and services* thoroughly.

In addition there are three Web design characteristics on effectiveness that Australians and Malaysians consider on the basis of the study premise. Both nationalities found the impact of *products and services* and *signs* important to the effectiveness of Web sites. The difference is that Australians will articulate more on *news stories* while Malaysians will give emphasis to *atmospherics*.

An emphasis of *atmospherics* by Malaysians would explain why they seek to obtain an indication of integration (tolerance, non-competitiveness) by examining

virtual presence (atmospheries). They pay more attention to surrounding details and content (i.e. physical location, ambiance or apparel). On the other hand, Australians give emphasis to articulate *news stories* as prior to the discussion that both *products and services* and *news stories* attracted significant inter-group differences in Café St. Tropez Restaurant and Netcard Station sites.[9]

The Impact Of Web Usage

For the extent to which the Web is used to locate products, services or information, there is no impact of these on the way Malaysians perceive the Web design characteristics and their effectiveness (Table 19). It can be argued that the advent of the Internet in Malaysia was later than in Australia. In April 1993, Malaysia owned 99 Internet hosts while Australia had owned 73,321 Internet hosts. Therefore the knowledge of the Internet technology and its range of services are still in infancy in Malaysia, as the development of the Internet was more recent than in Australia.

On the other hand, the extent to which the Web is used to locate products, services or information impacts on the way the Australian group perceives the Web design characteristics and their effectiveness on Web sites. From Table 18, on the basis of Australians using the Web to locate products, services or information, they perceive the following Web design characteristics impact on Web sites.

[9] There may be a strong relationship between them that is worth of further study, for example, it can be argued that in order to maximise the effectiveness of Web sites the display of products and services should be supported with the recent development of them.

- *Effectiveness atmospherics* on Café St. Tropez Restaurant site.
- *Atmospherics*, *news stories*, and *effectiveness news stories* on Netcard Station site.
- *Atmospherics*, *products and services*, *effectiveness atmospherics*, and *effectiveness products and services* on Ernst & Young (Australia) site.

The data analysis revealed that the above Web design characteristics are positively associated with the Web usage. A general observation obtained by looking at the association, the more experience people have using the Web, the higher they will perceive the impact of Web design characteristics and their effectiveness of Web sites.

CHAPTER 6: CONCLUSION

This chapter presents a summary of the study and provides guidelines for Australian and Malaysian Web designers. Study limitations and future research opportunities will then be described.

Summary Of The Study

This study shows that there are not many perceptual differences between Australians and Malaysians of Web design characteristics and their impact on the overall effectiveness of Web sites. The underlying premise of the study, namely that the dominant culture of a country (i.e. Malaysian, Australian) is reflected in the perception of Web sites and is not generalisable to the other culture (Grover et al, 1994), was not strongly reflected in the findings. Significant differences found for Web design characteristics were typically for one site only and not across all sites. In other words, consistent differences did not eventuate.

The most significant differences between the two groups' perception were for the Café St. Tropez Restaurant (CSTR) Web site. Australians perceived the Web design characteristic of *news stories* and the *effectiveness of products and services* and *signs* higher than Malaysians. The site, therefore, appeared to be appealing to the culture of Australians who are renowned for their outdoor lifestyle and love of eating out, noticeably reflected in the picture of the CSTR Web site. This life style may not be as attractive or familiar to the Malaysian students who took part in the study.

Specific differences for the Web design characteristic *products and services* were clearly perceived for Dewsons Supermarket (DS) and Netcard Station (NS). The graphical presentation on the DS Web site appears to encourage Australians to examine the products and services in more depth. Products were presented in bright colours and photographic views. On the other hand, for the NS Web site, products were represented in descriptive, technical words, which appealed more to Malaysians.

When significant differences existed between the two groups, they existed for four Web sites, of which three were Australian based and one was Malaysian based. Where Australians rated the Web sites higher than Malaysians, it was always for Australian sites: Dewsons Supermarket, Café St. Tropez Restaurant, and Ernst & Young (Australia); and where Malaysians rated the Web sites higher than Australians, it was always for Malaysian sites: Netcard Station. In other words, where a group's perceptions for Web design characteristics and their effectiveness was significantly higher, it was for sites originating in that country. This finding appears to suggest that organisations, which plan to set up a Web site to market their products and services in another country, should have their Web sites designed by someone in that country.[10]

Overall, the study's findings showed no consistent, significant differences across all Web sites for all Web design characteristics and their impact on the effectiveness, between the Malaysian and Australian groups. This appears to indicate that members of both groups are citizens of the Web's global village in which consumer behaviours and values are converging. In the global village, boundaries are not defined by tangible limits, but only by the level of knowledge and technical skills

[10] Guidelines are provided in next section.

of the individual (Computimes Malaysia, 1998). Geographical boundaries that separate us from one another seem to become less district. Thus, the development of Web sites for electronic commerce is becoming more fluid and pervasive; the boundaries among people (i.e. customers or Web users), functions (i.e. Internet commerce) and corporation (i.e. a Web site) themselves are blurring.[11]

Guidelines for Australian Web Designers

The study's findings provide the opportunity to make recommendations to Australian Web designers. They take into account that Australians emphasise explicit verbal communication and clear expression of intention and that they expect information in a direct and immediate mode (e.g. words and images). Australian Web designers should therefore consider the following Web design approaches:

- Graphical and photographic pictures, which represent the character of Australians (e.g. the outdoor life style and love eating out) should be included.
- The Web design characteristics of *products and services* and *signs* appear to be important to Australian consumers, and should be present.
- *News stories* articulation should support the display of *products and services* as far as possible.

Web site designers should also take into account that Australians appear to be more experienced in using the Web to locate products, services or information than

[11] These issues are now being researched, for example refer to Bollier, 1997.

Malaysians. Thus they are familiar with this technology, which augers well for the future of Internet commerce.

Guidelines for Malaysian Web Designers

Based on the study findings, guidelines can be provided to Malaysian Web designers. They take into account that Malaysians stress implicit non-verbal communication and they pay more attention to surrounding details and content (e.g physical location, ambiance). Malaysian Web designers should therefore consider the following guidelines:

- Provide a technology orientation on the Web site, for example, the Netcard Station Web site employs technical words in order to attract Malaysian Web users.
- The characteristics of *atmospherics* should be emphasised on the Web site and to indicate the integration with Malaysians culture.
- *Products and services* and *signs* Web design characteristics appear to be important to Malaysian consumers and should be present.

Web site designers should take note that Malaysians appears to be less familiar with using the Web to locate products, services or information than Australians. They are not as familiar and are still learning to employ its functions for Internet commerce.

Study Limitations

In this study, there are some limitations that need to be considered. First, Internet business models are emerging and it is vital to remain alert and be aware as new models make their appearance (Lawrence et al, 1998). Shortage of suitable models of Internet commerce has brought pressure on subsequent research to develop suitable frameworks and methodologies. This makes the study of the nature of exploratory research. The Integrated Internet Marketing (I^2M) model, as an example of the emerging ones, was used in this study. However newer model may emerge in the future, which could provide a better way of conducting this type of research. Through the newness of the I^2M model it is impossible to make comparisons with other studies in terms of the results of the study.

Second, the approach of conducting controlled laboratory experimentation can be critised as being artificial to a degree and findings are not readily generalisable (Cooper & Emory, 1995). The study required participants to carry out predetermined tasks from which they could not deviate. In the environment of electronic commerce, this needs further consideration because of other potential influences. For example, researchers should consider carefully whether or not and to what extent subjects should be allowed to explore the information available to them (e.g. by looking at other pages on the site). In this study, subjects were only allowed to evaluate the initial page since it is argued that this page will play the major role in determining the Web users to revisit and do business.

The controlled laboratory experimentation method, however, provided advantages because it enabled manipulation of the independent variables (i.e. Web

design characteristics) for evaluation by two distinct cultural groups (i.e. Malaysians and Australians). Therefore, the study controlled any contamination from extraneous variables by, for example, ensuring that Malaysian participants were new arrivals in Australia.

Third, the preliminary selection of 14 Web sites and the selection process was based on the researcher's assessment. This generated 8 Web sites for detailed investigation, the selection of which may reflect the researcher's biases. On the Web there are literally hundreds and thousands of Web sites that could have been selected for the study.

Future Research

The conclusions from research studies usually generate new ideas and identify problems that need to be further investigated (Zikmund, 1997). The controlled laboratory experimentation approach used in this study can easily be replicated or repeated with different subjects group (e.g. using business people in Malaysia rather than Malaysian students in Australia) and conditions (e.g. using Web sites from other sectors of the economy). This would lead to a critical mass of research, and hence provide greater confidence in establishing national similarities or differences.

The research found a lack of significant differences across all Web sites. However for two of the Web sites (Café St. Tropez Restaurant and Netcard Station) both *products and services* and *news stories* attracted significant inter-group differences. Thus some relationships may exist between them that is worth further

study. For example, it could be argued that in order to maximise the impact *of products and services* displayed, they should be supported with *news stories* providing information about recent developments.

This research found that Australians rated Australian Web sites different from Malaysians for Malaysian Web sites: Dewsons Supermarket, Café St Tropez Restaurant, Ernst & Young (Australia); and Malaysians rated their Web site different than Australians for Australian Web sites: Netcard Station. This area is worth further study to compare the Web site across cultures. The thrust is that cultural value influence the design of Web sites because the designers anticipate how prospective visitors from their culture will react to the site. For example Malaysian Web sites may pay greater attention to atmospherics than comparable Australian sites.

Another aspect that is worth further study is the emergence of the phenomena of iconography and Web lingo for individual countries. They may become important to organisations wishing to extend their Web sales and marketing activities. In a recent study, Kalin (1998) found that the development of Web lingo and iconography unique to particular nationalities. For example, the English term 'home page' is translated as 'pagina inicial' in Spanish; the mailbox icon, easily recognisable by a novice American Web surfer, may not be easily recognised by Web surfers from other countries. The mailbox colour and shape do not communicate clearly to Asians the notion of sending mail. A more universal icon could be an envelope. It is suggested that research into these aspects be conducted.

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APPENDIX A

The Consent Letter

__ June 1998

Dear Participant

Thank you for participating in this study about Web sites.

This study is to find differences of Web sites design for on-line marketing and advertising between Australia and Malaysia organisations.

As participant you will evaluate 8 Web sites on a computer terminal in about 1 hour. A following short interview will be conducted with each participant to obtain more in-depth information.

This research will benefit Australian organisations to market/advertise their products and services in Malaysia and Malaysian organisations to market/advertise their products and services in Australia using the Internet.

There will be no risks whatsoever for each participant in this study. We anticipate that each participant will increase his/her interest in modern technology particular for the Internet. All information and your identity will be kept strictly confidential.

In recognition time you have spent in this study, you will be given $10 for participation. If you wish to collect the money please fill in information below.

Name : _____

Signature : _____

Date : _____

If you are willing to be interviewed, please tick in the box. Yes ❑ No ❑

If you agree to participate in this study, your involvement will not influence the assessment of the course you are taking. You are also allowed to withdraw in this study any time you want.

If you wish to know more about this study please contact Ricky Laupase on 0417 946 912 or Dr. Dieter Fink, my supervisor, on 9273 8726.

Sincerely

Ricky Laupase

The Questionnaire

RESEARCH QUESTIONNAIRES
DESIGN CRITERIA FOR WEB SITES – A MALAYSIA/AUSTRALIA COMPARISON

RESEARCH AIM

This research is about differences between Australian and Malaysian organisations of Web sites design when used for on-line marketing and advertising purposes.

The findings of the study will assist Australian organisations to market/advertise their products and services in Malaysia and Malaysian organisations to market/advertise their products and services in Australia more effectively.

YOU ARE ASKED TO:

1. Examine each Web page in terms of the following design criteria.

   - ***Atmospherics***: An experience of being in a place without going there physically (e.g. 'virtually' visiting a restaurant).
   - ***News stories***: Recent news on the development of the organisation's products and services (e.g. 'what's new' and news features).
   - ***Signs***: An animation of a company's logo is displayed to create an impact on the viewer (e.g. eye catching).
   - ***Products and services***: A product and service is displayed to encourage customers to look at further pages (e.g. in multimedia forms).

2. Indicate to what extent each of the above criteria impacts on the overall effectiveness of the Web page. Overall effectiveness is defined as achieving the marketing/advertising objective of the Web site.

3. Only evaluate the first page of each Web site. DO NOT click on to other parts of the Web site.

CONFIDENTIALITY

Your opinions are highly valued and appreciated. All data and information will be kept strictly confidential and your personal details will not be disclosed.

This research is being conducted by:

Ricky Laupase
Student in Master of Business in Information Systems

under the supervision of

Dr. Dieter Fink
Associate Professor School of Management Information Systems
Supervisor

Background Data

Please fill out and tick the box below as necessary.

Nationality: Australian ❑ Malaysian ❑ Other (specify) _____

How long have you been staying in Australia: _____

Gender: Male ❑ Female ❑

Major of study: _____

2nd major (if taken): _____

Year of study (equivalent full time): Year 1 ❑ Year 2 ❑ Year 3 ❑

How often do you or have you used the Web to locate products, services or information? (Please circle)

None 1 2 3 4 5 6 7 Very often

(Please note that your personal details or participation in this study will not be disclosed).

Web #1: Dewsons Supermarket (http://www.dewsons.com.au)

Please answer the following questions.

Do you have the feeling that you are visiting Dewsons (*atmospherics*)?	Weak feeling of Virtual presence						Strong feeling of virtual presence
	1	2	3	4	5	6	7
Do you have the feeling that you know about recent developments at Dewsons (*news stories*)?	Absence of recent news						Presence of recent news
	1	2	3	4	5	6	7
Does the logo of Dewsons create an impact on you (*signs*)?	Weak in impact						Strong in impact
	1	2	3	4	5	6	7
Does the display of products and services encourage you to look at other pages on Dewsons Web site (*products and services*)?	Will not look at other pages						Will definitely look at other pages
	1	2	3	4	5	6	7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #2: Café St Tropez Restaurant (CSTR) (http://www.cafesttropez.com.au)

Please answer the following questions.

Do you have the feeling that you are visiting CSTR (*atmospherics*)?	Weak feeling of Virtual presence 1	2	3	4	5	6	Strong feeling of virtual presence 7
Do you have the feeling that you know about recent developments at CSTR (*news stories*)?	Absence of recent news 1	2	3	4	5	6	Presence of recent news 7
Does the logo of CSTR create an impact on you (*signs*)?	Weak in impact 1	2	3	4	5	6	Strong in impact 7
Does the display of products and services encourage you to look at other pages on CSTR Web site (*products and services*)?	Will not look at other pages 1	2	3	4	5	6	Will definitely look at other pages 7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #3: Virtual Shopping (VS) (http://www.vis.com.my)

Please answer the following questions.

	Weak feeling of Virtual presence						Strong feeling of virtual presence
Do you have the feeling that you are visiting VS (*atmospherics*)?	1	2	3	4	5	6	7
	Absence of recent news						Presence of recent news
Do you have the feeling that you know about recent developments at VS (*news stories*)?	1	2	3	4	5	6	7
	Weak in impact						Strong in impact
Does the logo of VS create an impact on you (*signs*)?	1	2	3	4	5	6	7
	Will not look at other pages						Will definitely look at other pages
Does the display of products and services encourage you to look at other pages on VS Web site (*products and services*)?	1	2	3	4	5	6	7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #4: NetCard Station (NS) (http://www.netcard.com.my)

Please answer the following questions.

Do you have the feeling that you are visiting NS (*atmospherics*)?	Weak feeling of Virtual presence						Strong feeling of virtual presence
	1	2	3	4	5	6	7
Do you have the feeling that you know about recent developments at NS (*news stories*)?	Absence of recent news						Presence of recent news
	1	2	3	4	5	6	7
Does the logo of NS create an impact on you (*signs*)?	Weak in impact						Strong in impact
	1	2	3	4	5	6	7
Does the display of products and services encourage you to look at other pages on NS Web site (*products and services*)?	Will not look at other pages						Will definitely look at other pages
	1	2	3	4	5	6	7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #5: Amway (Australia) (A(A))
(http://www.amwayglobalvillage.com/australia)

Please answer the following questions.

Do you have the feeling that you are visiting AA (*atmospherics*)?	Weak feeling of Virtual presence						Strong feeling of virtual presence
	1	2	3	4	5	6	7
Do you have the feeling that you know about recent developments at AA (*news stories*)?	Absence of recent news						Presence of recent news
	1	2	3	4	5	6	7
Does the logo of AA create an impact on you (*signs*)?	Weak in impact						Strong in impact
	1	2	3	4	5	6	7
Does the display of products and services encourage you to look at other pages on AA Web site (*products and services*)?	Will not look at other pages						Will definitely look at other pages
	1	2	3	4	5	6	7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #6: Amway (Malaysia) (A(M)
(http://www.amwayglobalvillage.com/malaysia)

Please answer the following questions.

	Weak feeling of Virtual presence						Strong feeling of virtual presence
Do you have the feeling that you are visiting AM (*atmospherics*)?	1	2	3	4	5	6	7
	Absence of recent news						Presence of recent news
Do you have the feeling that you know about recent developments at AM *(news stories)*?	1	2	3	4	5	6	7
	Weak in impact						Strong in impact
Does the logo of AM create an impact on you (*signs*)?	1	2	3	4	5	6	7
	Will not look at other pages						Will definitely look at other pages
Does the display of products and services encourage you to look at other pages on AM Web site (*products and services*)?	1	2	3	4	5	6	7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #7: Ernst & Young (Australia) (EY(A)) (http://www.ey.com.au)

Please answer the following questions.

Do you have the feeling that you are visiting EYA (*atmospherics*)?	Weak feeling of Virtual presence 1	2	3	4	5	6	Strong feeling of virtual presence 7
Do you have the feeling that you know about recent developments at EYA *(news stories)*?	Absence of recent news 1	2	3	4	5	6	Presence of recent news 7
Does the logo of EYA create an impact on you (*signs*)?	Weak in impact 1	2	3	4	5	6	Strong in impact 7
Does the display of products and services encourage you to look at other pages on EYA Web site (*products and services*)?	Will not look at other pages 1	2	3	4	5	6	Will definitely look at other pages 7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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Web #8: Ernst & Young (Malaysia) (EY(M)) (http://www.eyi.com/malaysia)

Please answer the following questions.

Do you have the feeling that you are visiting EYM (*atmospherics*)?	Weak feeling of Virtual presence						Strong feeling of virtual presence
	1	2	3	4	5	6	7
Do you have the feeling that you know about recent developments at EYM (*news stories*)?	Absence of recent news						Presence of recent news
	1	2	3	4	5	6	7
Does the logo of EYM create an impact on you (*signs*)?	Weak in impact						Strong in impact
	1	2	3	4	5	6	7
Does the display of products and services encourage you to look at other pages on EYM Web site (*products and services*)?	Will not look at other pages						Will definitely look at other pages
	1	2	3	4	5	6	7

Comments:

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In your opinion, what impact do the design criteria have on the overall effectiveness of this Web site.

	Low impact						High impact
Atmospherics	1	2	3	4	5	6	7
News stories	1	2	3	4	5	6	7
Signs	1	2	3	4	5	6	7
Products & services	1	2	3	4	5	6	7

Comments:

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- Would you be prepared to speak to the researcher in more depth on this topic?

  Yes ☐ No ☐

- If you would like to make additional comments, please do so in the space below:

  _____
  _____
  _____
  _____

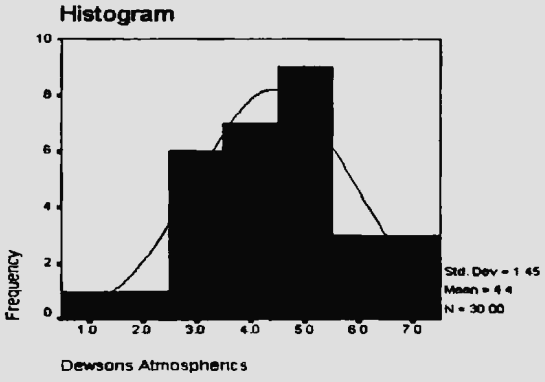
Thank you for participating in the study!

APPENDIX B

Distribution of Data (Australians)

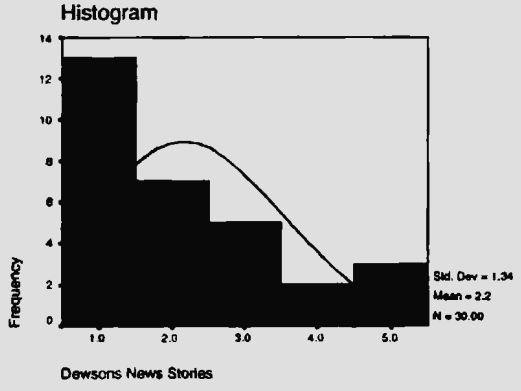
Dewsons Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	1	3.3	3.3	6.7
	3	6	20.0	20.0	26.7
	4	7	23.3	23.3	50.0
	5	9	30.0	30.0	80.0
	6	3	10.0	10.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



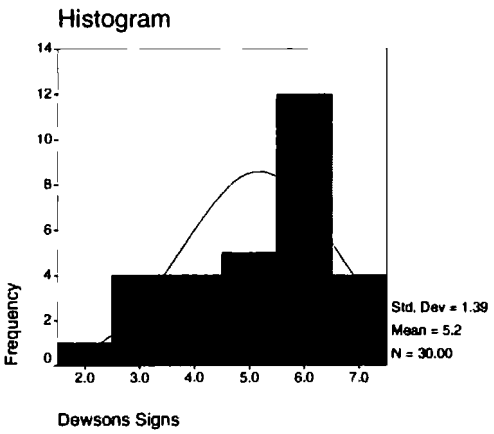
Dewsons News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	43.3	43.3	43.3
	2	7	23.3	23.3	66.7
	3	5	16.7	16.7	83.3
	4	2	6.7	6.7	90.0
	5	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



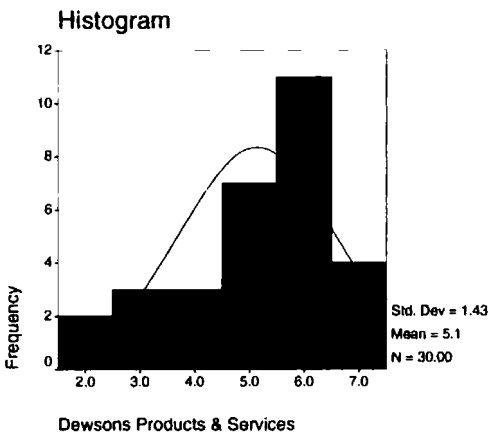
Dewsons Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	3	4	13.3	13.3	16.7
	4	4	13.3	13.3	30.0
	5	5	16.7	16.7	46.7
	6	12	40.0	40.0	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



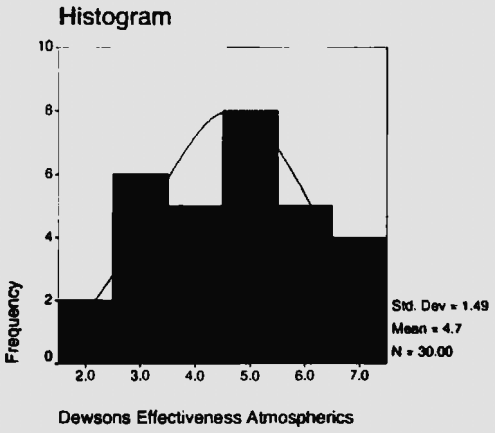
Dewsons Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	3	10.0	10.0	16.7
	4	3	10.0	10.0	26.7
	5	7	23.3	23.3	50.0
	6	11	36.7	36.7	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



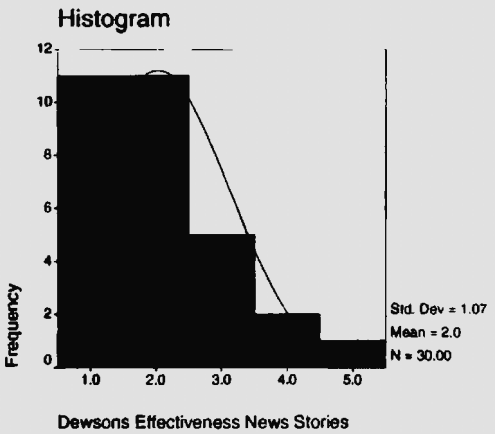
Dewsons Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	6	20.0	20.0	26.7
	4	5	16.7	16.7	43.3
	5	8	26.7	26.7	70.0
	6	5	16.7	16.7	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



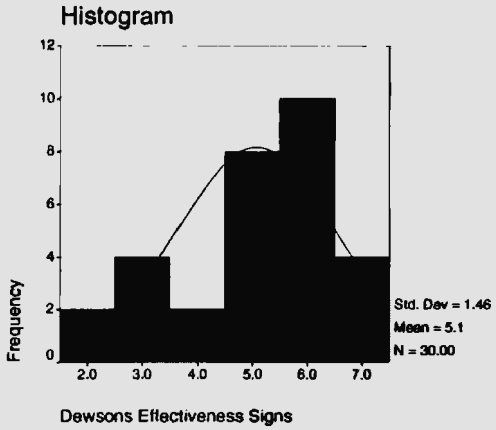
Dewsons Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	36.7	36.7	36.7
	2	11	36.7	36.7	73.3
	3	5	16.7	16.7	90.0
	4	2	6.7	6.7	96.7
	5	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



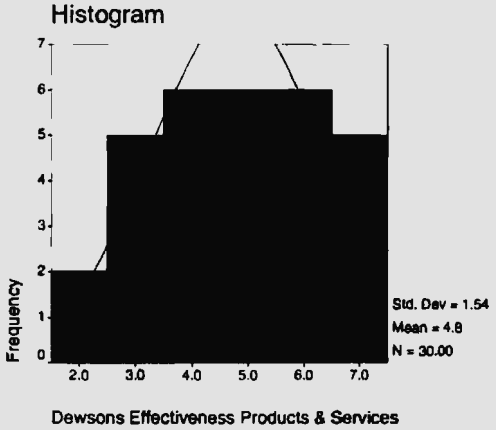
Dewsons Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	4	13.3	13.3	20.0
	4	2	6.7	6.7	26.7
	5	8	26.7	26.7	53.3
	6	10	33.3	33.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



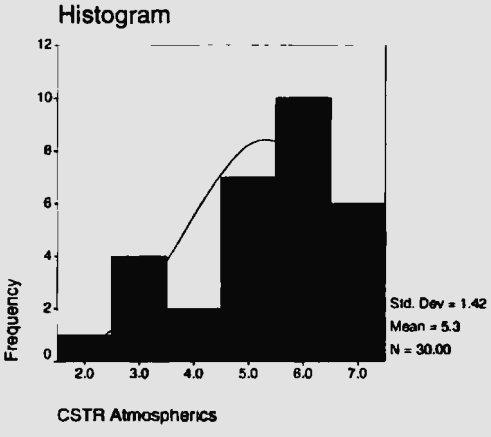
Dewsons Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	5	16.7	16.7	23.3
	4	6	20.0	20.0	43.3
	5	6	20.0	20.0	63.3
	6	6	20.0	20.0	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



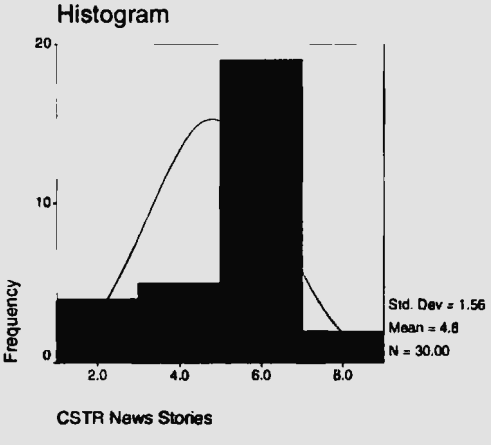
CSTR Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	3	4	13.3	13.3	16.7
	4	2	6.7	6.7	23.3
	5	7	23.3	23.3	46.7
	6	10	33.3	33.3	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



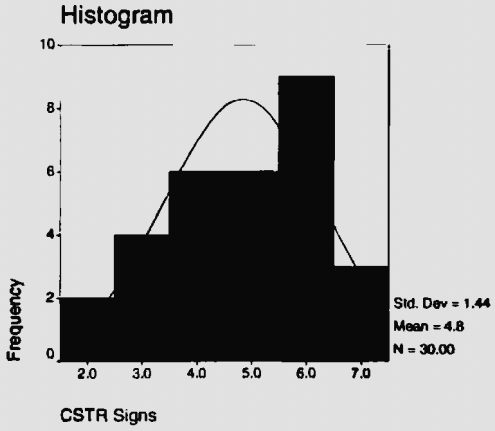
CSTR News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	2	6.7	6.7	13.3
	4	5	16.7	16.7	30.0
	5	10	33.3	33.3	63.3
	6	9	30.0	30.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



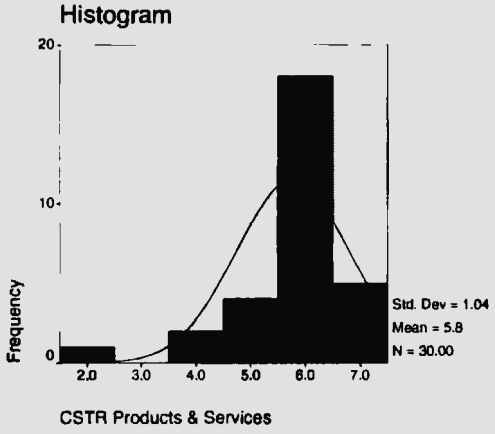
CSTR Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	4	13.3	13.3	20.0
	4	6	20.0	20.0	40.0
	5	6	20.0	20.0	60.0
	6	9	30.0	30.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



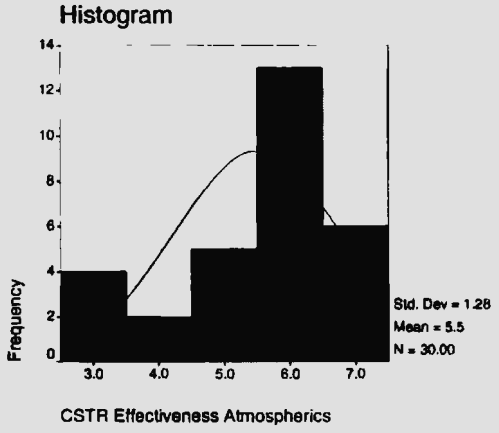
CSTR Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	4	2	6.7	6.7	10.0
	5	4	13.3	13.3	23.3
	6	18	60.0	60.0	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



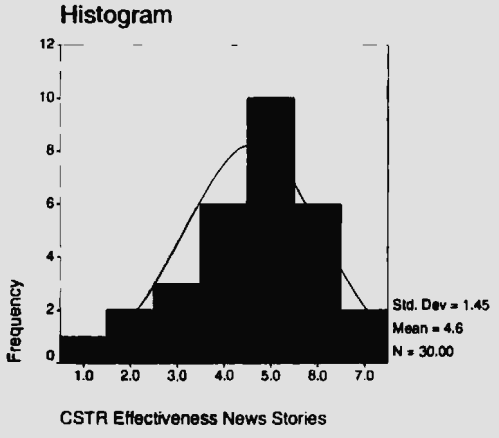
CSTR Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	4	13.3	13.3	13.3
	4	2	6.7	6.7	20.0
	5	5	16.7	16.7	36.7
	6	13	43.3	43.3	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



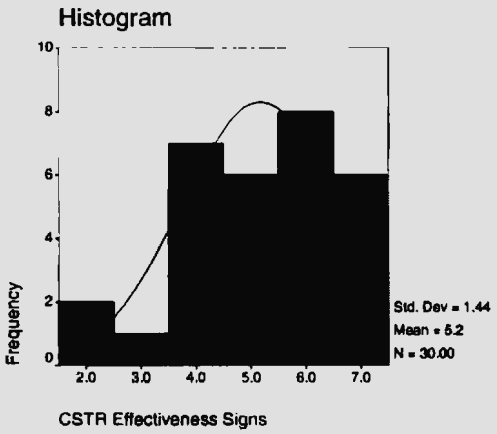
CSTR Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	2	6.7	6.7	10.0
	3	3	10.0	10.0	20.0
	4	6	20.0	20.0	40.0
	5	10	33.3	33.3	73.3
	6	6	20.0	20.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



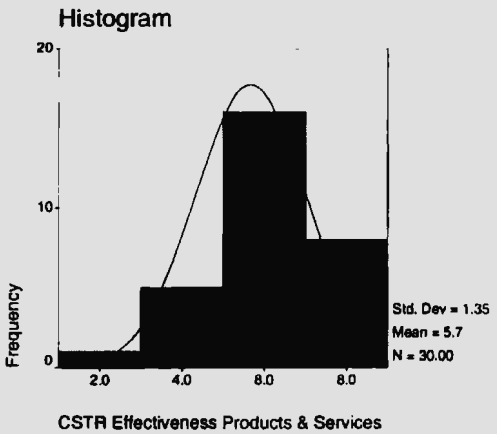
CSTR Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	1	3.3	3.3	10.0
	4	7	23.3	23.3	33.3
	5	6	20.0	20.0	53.3
	6	8	26.7	26.7	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



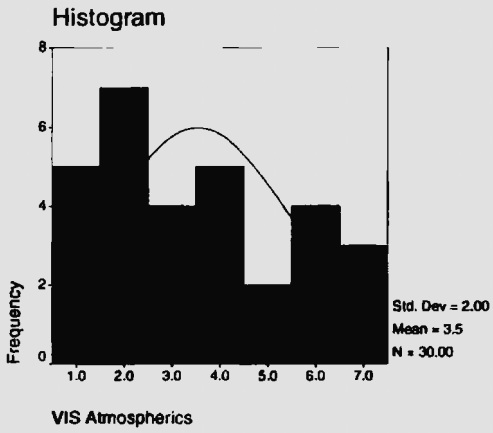
CSTR Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	4	5	16.7	16.7	20.0
	5	3	10.0	10.0	30.0
	6	13	43.3	43.3	73.3
	7	8	26.7	26.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



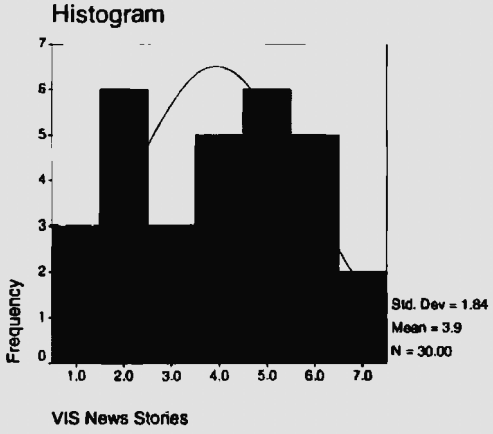
VIS Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	7	23.3	23.3	40.0
	3	4	13.3	13.3	53.3
	4	5	16.7	16.7	70.0
	5	2	6.7	6.7	76.7
	6	4	13.3	13.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



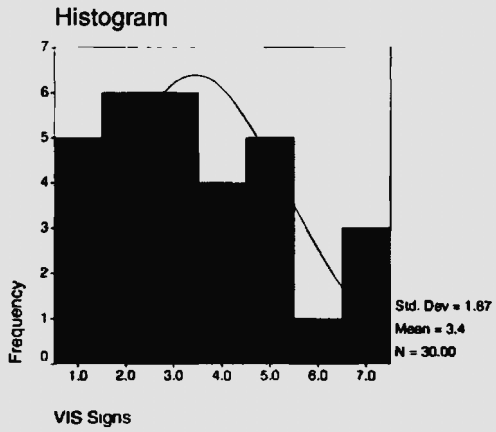
VIS News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	6	20.0	20.0	30.0
	3	3	10.0	10.0	40.0
	4	5	16.7	16.7	56.7
	5	6	20.0	20.0	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



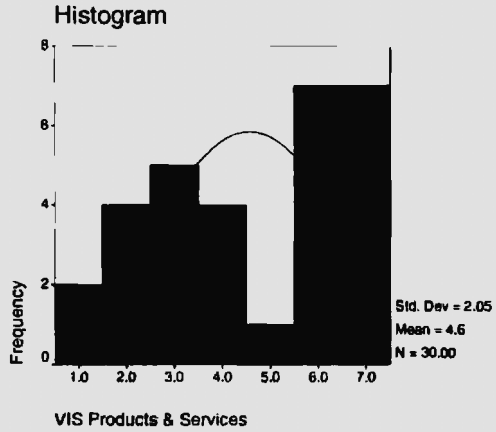
VIS Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	6	20.0	20.0	36.7
	3	6	20.0	20.0	56.7
	4	4	13.3	13.3	70.0
	5	5	16.7	16.7	86.7
	6	1	3.3	3.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



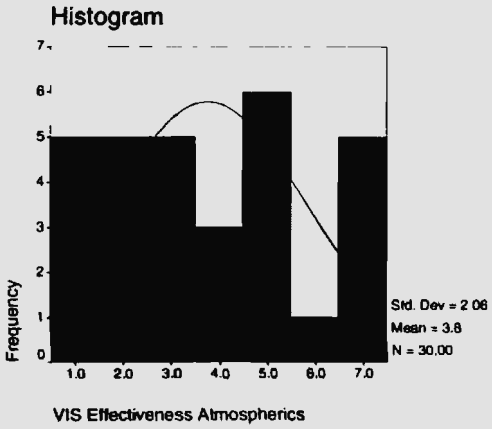
VIS Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	4	13.3	13.3	20.0
	3	5	16.7	16.7	36.7
	4	4	13.3	13.3	50.0
	5	1	3.3	3.3	53.3
	6	7	23.3	23.3	76.7
	7	7	23.3	23.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



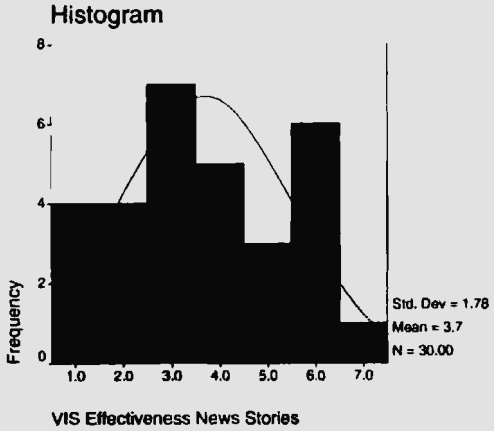
VIS Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	5	16.7	16.7	33.3
	3	5	16.7	16.7	50.0
	4	3	10.0	10.0	60.0
	5	6	20.0	20.0	80.0
	6	1	3.3	3.3	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



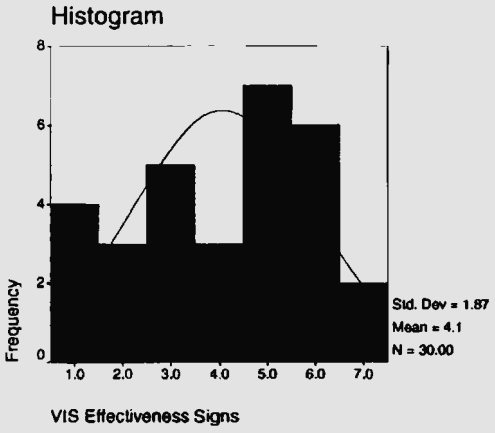
VIS Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	13.3	13.3	13.3
	2	4	13.3	13.3	26.7
	3	7	23.3	23.3	50.0
	4	5	16.7	16.7	66.7
	5	3	10.0	10.0	76.7
	6	6	20.0	20.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



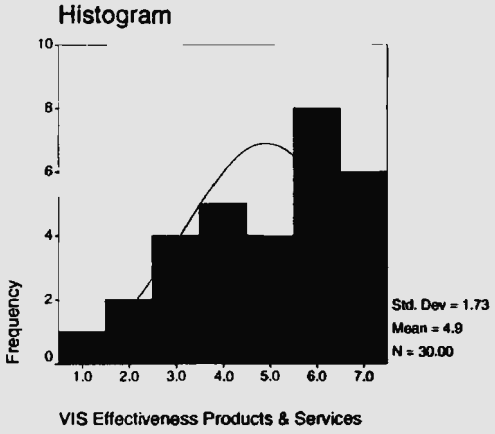
VIS Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	13.3	13.3	13.3
	2	3	10.0	10.0	23.3
	3	5	16.7	16.7	40.0
	4	3	10.0	10.0	50.0
	5	7	23.3	23.3	73.3
	6	6	20.0	20.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



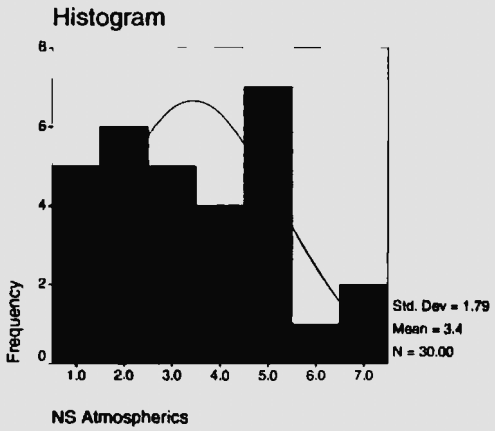
VIS Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	2	6.7	6.7	10.0
	3	4	13.3	13.3	23.3
	4	5	16.7	16.7	40.0
	5	4	13.3	13.3	53.3
	6	8	26.7	26.7	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



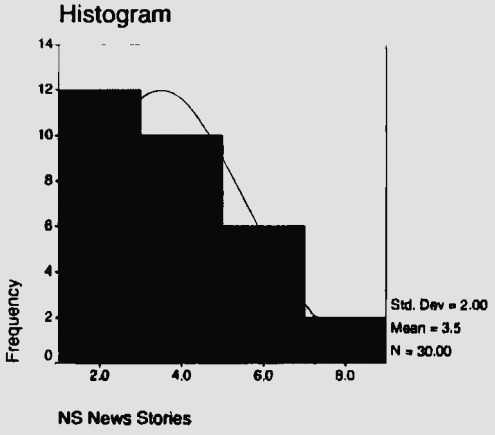
NS Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	6	20.0	20.0	36.7
	3	5	16.7	16.7	53.3
	4	4	13.3	13.3	66.7
	5	7	23.3	23.3	90.0
	6	1	3.3	3.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



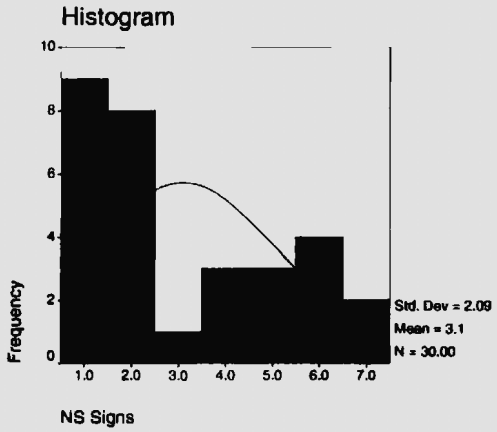
NS News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	20.0	20.0	20.0
	2	6	20.0	20.0	40.0
	3	3	10.0	10.0	50.0
	4	7	23.3	23.3	73.3
	6	6	20.0	20.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



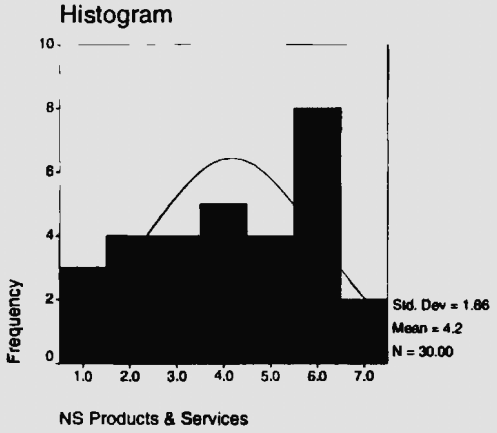
NS Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	30.0	30.0	30.0
	2	8	26.7	26.7	56.7
	3	1	3.3	3.3	60.0
	4	3	10.0	10.0	70.0
	5	3	10.0	10.0	80.0
	6	4	13.3	13.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



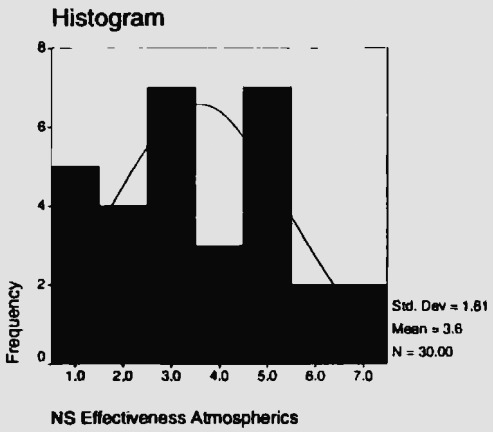
NS Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	4	13.3	13.3	23.3
	3	4	13.3	13.3	36.7
	4	5	16.7	16.7	53.3
	5	4	13.3	13.3	66.7
	6	8	26.7	26.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



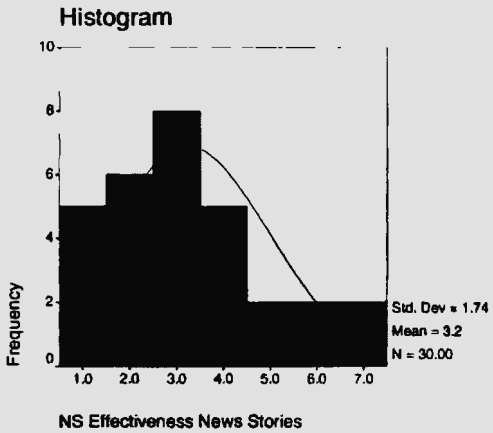
NS Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	4	13.3	13.3	30.0
	3	7	23.3	23.3	53.3
	4	3	10.0	10.0	63.3
	5	7	23.3	23.3	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



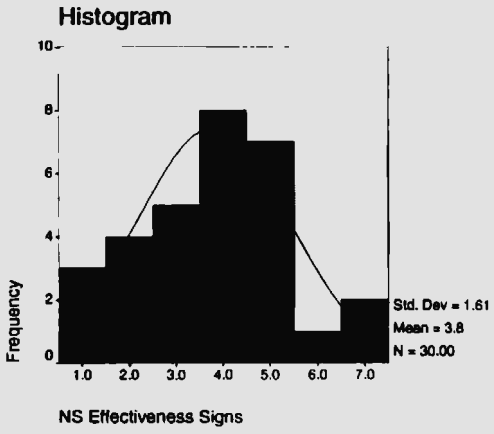
NS Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	6	20.0	20.0	36.7
	3	8	26.7	26.7	63.3
	4	5	16.7	16.7	80.0
	5	2	6.7	6.7	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



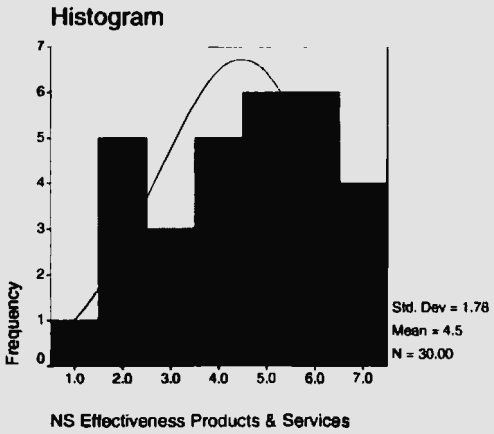
NS Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	4	13.3	13.3	23.3
	3	5	16.7	16.7	40.0
	4	8	26.7	26.7	66.7
	5	7	23.3	23.3	90.0
	6	1	3.3	3.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



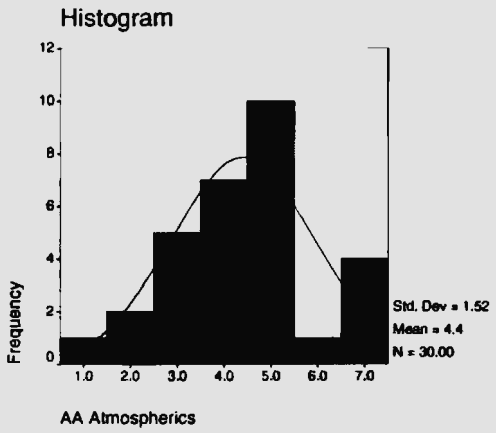
NS Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	5	16.7	16.7	20.0
	3	3	10.0	10.0	30.0
	4	5	16.7	16.7	46.7
	5	6	20.0	20.0	66.7
	6	6	20.0	20.0	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



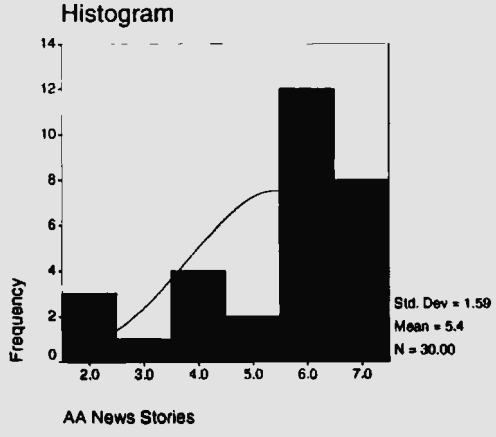
AA Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	2	6.7	6.7	10.0
	3	5	16.7	16.7	26.7
	4	7	23.3	23.3	50.0
	5	10	33.3	33.3	83.3
	6	1	3.3	3.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



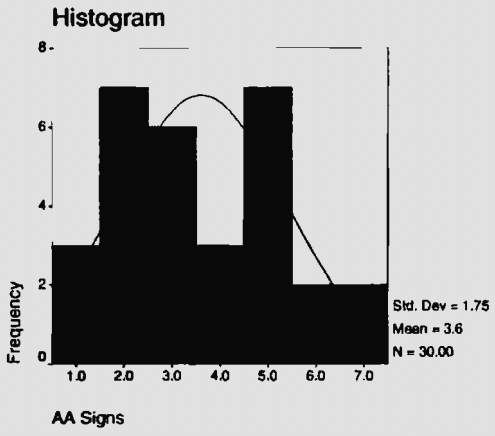
AA News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	10.0	10.0	10.0
	3	1	3.3	3.3	13.3
	4	4	13.3	13.3	26.7
	5	2	6.7	6.7	33.3
	6	12	40.0	40.0	73.3
	7	8	26.7	26.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



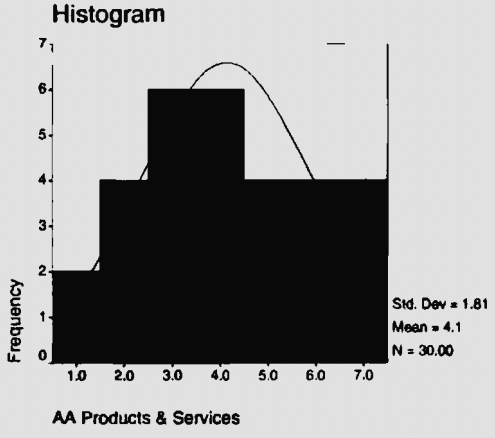
AA Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	7	23.3	23.3	33.3
	3	6	20.0	20.0	53.3
	4	3	10.0	10.0	63.3
	5	7	23.3	23.3	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



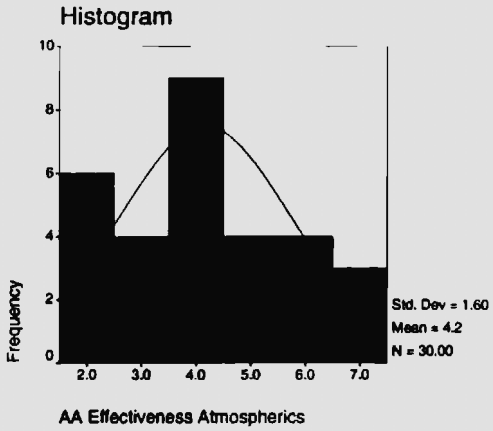
AA Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	4	13.3	13.3	20.0
	3	6	20.0	20.0	40.0
	4	6	20.0	20.0	60.0
	5	4	13.3	13.3	73.3
	6	4	13.3	13.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



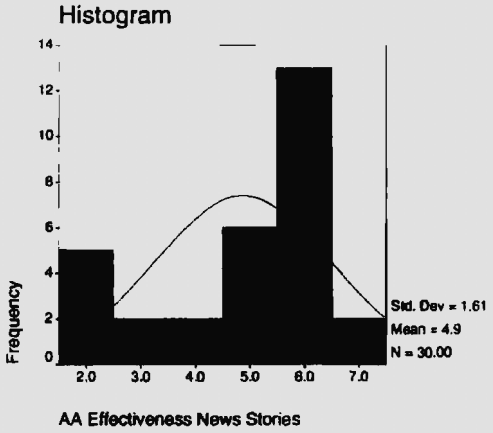
AA Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	6	20.0	20.0	20.0
	3	4	13.3	13.3	33.3
	4	9	30.0	30.0	63.3
	5	4	13.3	13.3	76.7
	6	4	13.3	13.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



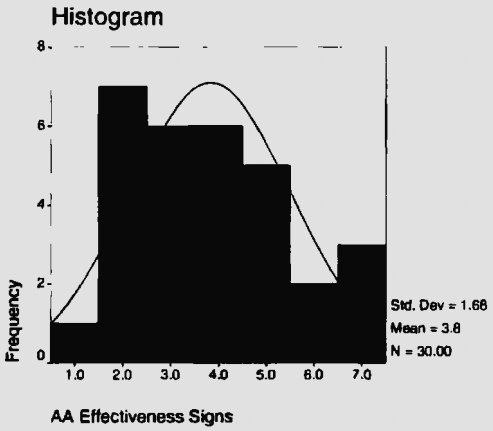
AA Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	16.7	16.7	16.7
	3	2	6.7	6.7	23.3
	4	2	6.7	6.7	30.0
	5	6	20.0	20.0	50.0
	6	13	43.3	43.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



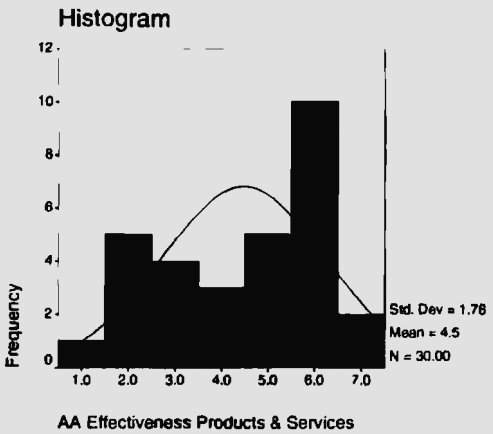
AA Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	7	23.3	23.3	26.7
	3	6	20.0	20.0	46.7
	4	6	20.0	20.0	66.7
	5	5	16.7	16.7	83.3
	6	2	6.7	6.7	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



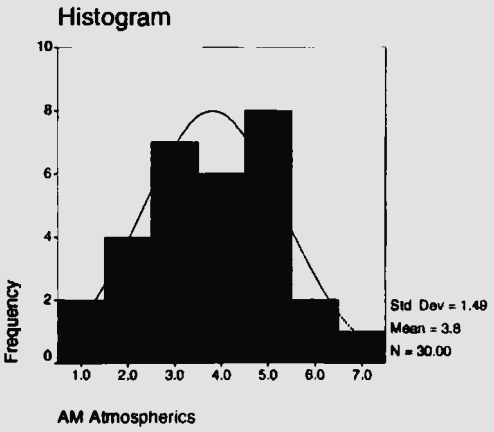
AA Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	5	16.7	16.7	20.0
	3	4	13.3	13.3	33.3
	4	3	10.0	10.0	43.3
	5	5	16.7	16.7	60.0
	6	10	33.3	33.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



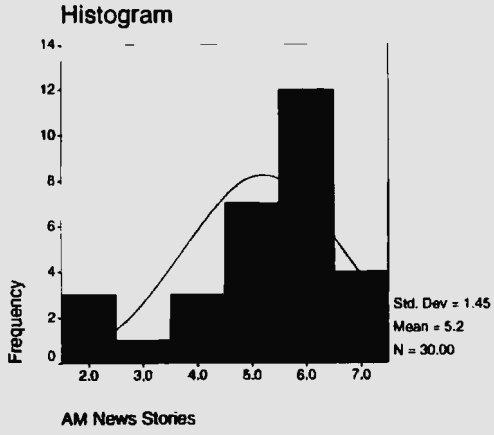
AM Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	4	13.3	13.3	20.0
	3	7	23.3	23.3	43.3
	4	6	20.0	20.0	63.3
	5	8	26.7	26.7	90.0
	6	2	6.7	6.7	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



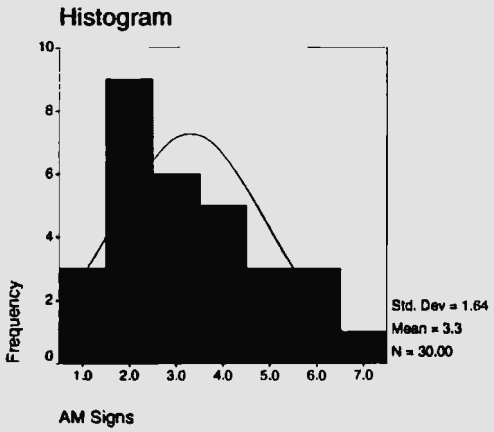
AM News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	10.0	10.0	10.0
	3	1	3.3	3.3	13.3
	4	3	10.0	10.0	23.3
	5	7	23.3	23.3	46.7
	6	12	40.0	40.0	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



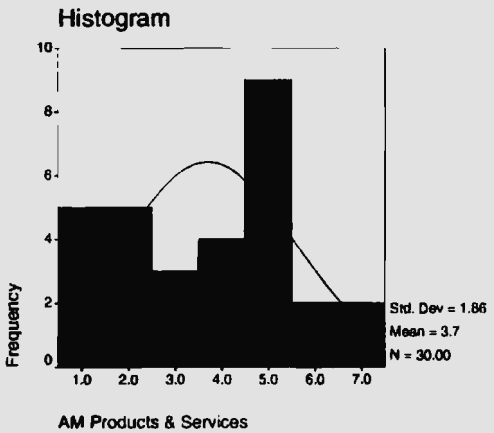
AM Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	9	30.0	30.0	40.0
	3	6	20.0	20.0	60.0
	4	5	16.7	16.7	76.7
	5	3	10.0	10.0	86.7
	6	3	10.0	10.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



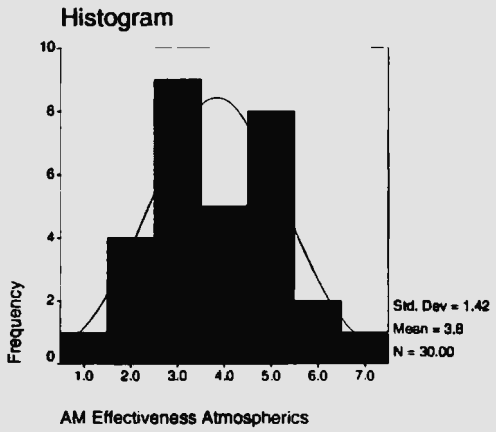
AM Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	5	16.7	16.7	33.3
	3	3	10.0	10.0	43.3
	4	4	13.3	13.3	56.7
	5	9	30.0	30.0	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



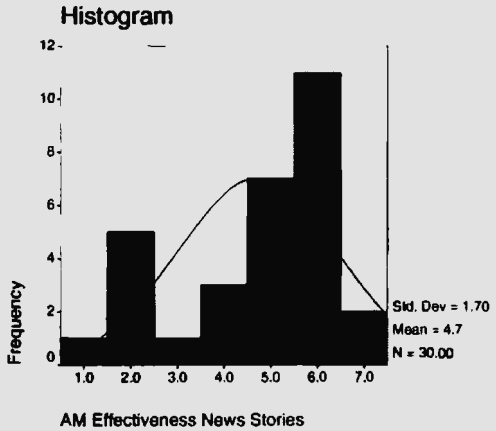
AM Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	4	13.3	13.3	16.7
	3	9	30.0	30.0	46.7
	4	5	16.7	16.7	63.3
	5	8	26.7	26.7	90.0
	6	2	6.7	6.7	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



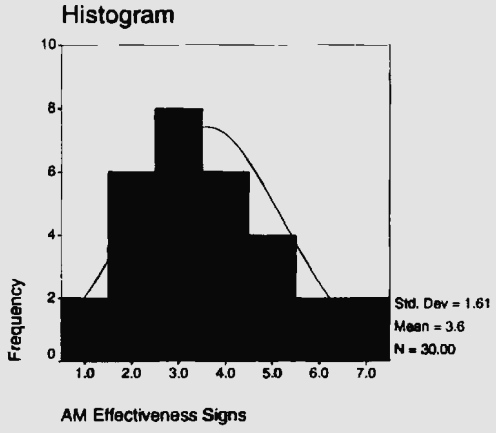
AM Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	5	16.7	16.7	20.0
	3	1	3.3	3.3	23.3
	4	3	10.0	10.0	33.3
	5	7	23.3	23.3	56.7
	6	11	36.7	36.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



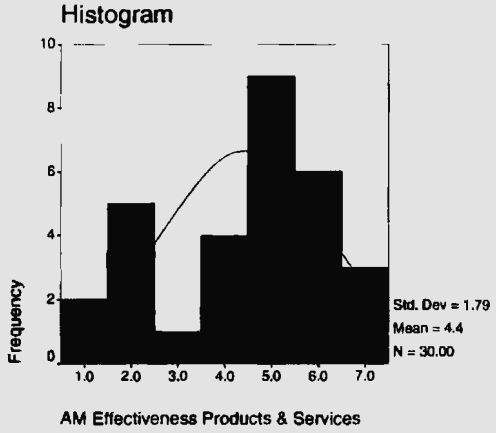
AM Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	6	20.0	20.0	26.7
	3	8	26.7	26.7	53.3
	4	6	20.0	20.0	73.3
	5	4	13.3	13.3	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



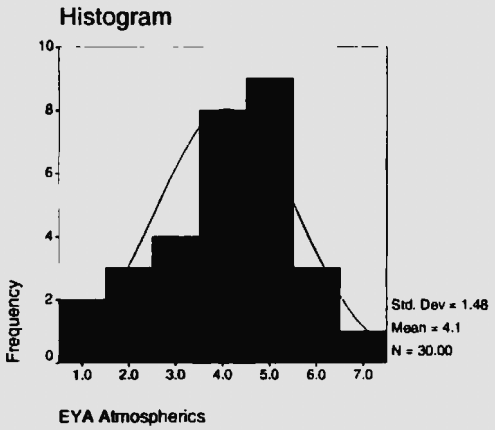
AM Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	5	16.7	16.7	23.3
	3	1	3.3	3.3	26.7
	4	4	13.3	13.3	40.0
	5	9	30.0	30.0	70.0
	6	6	20.0	20.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



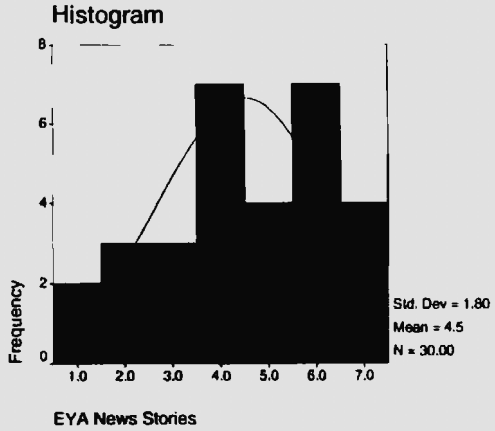
EYA Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	4	13.3	13.3	30.0
	4	8	26.7	26.7	56.7
	5	9	30.0	30.0	86.7
	6	3	10.0	10.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



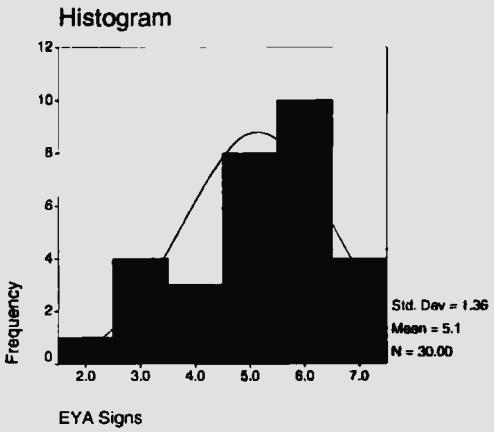
EYA News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	3	10.0	10.0	26.7
	4	7	23.3	23.3	50.0
	5	4	13.3	13.3	63.3
	6	7	23.3	23.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



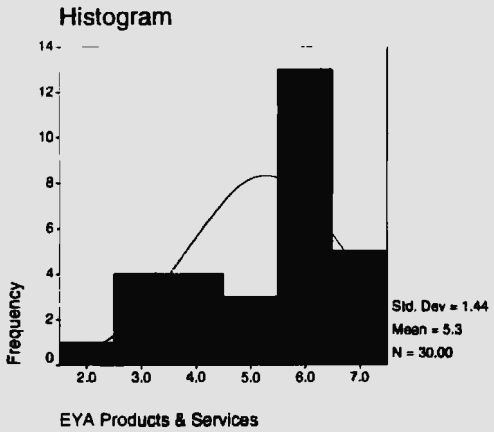
EYA Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	3	4	13.3	13.3	16.7
	4	3	10.0	10.0	26.7
	5	8	26.7	26.7	53.3
	6	10	33.3	33.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



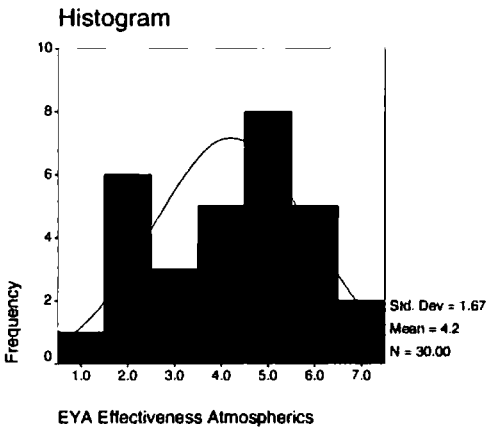
EYA Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	3	4	13.3	13.3	16.7
	4	4	13.3	13.3	30.0
	5	3	10.0	10.0	40.0
	6	13	43.3	43.3	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



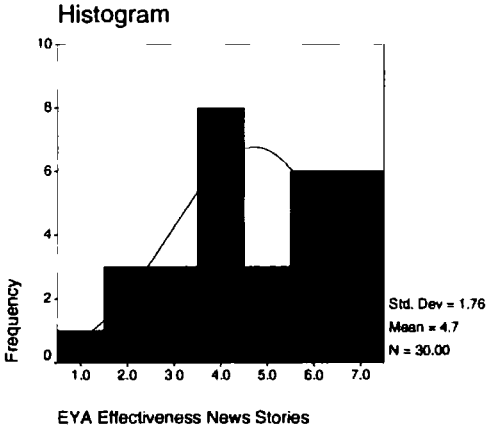
EYA Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	6	20.0	20.0	23.3
	3	3	10.0	10.0	33.3
	4	5	16.7	16.7	50.0
	5	8	26.7	26.7	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



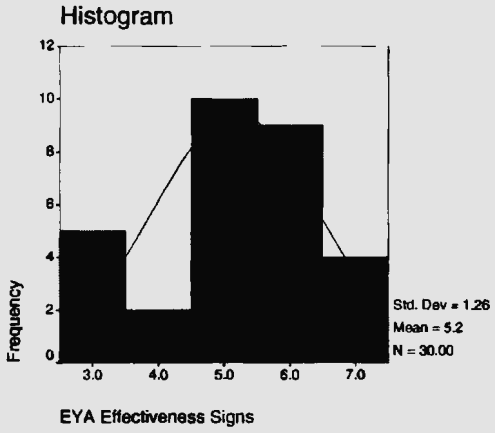
EYA Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	3	10.0	10.0	23.3
	4	8	26.7	26.7	50.0
	5	3	10.0	10.0	60.0
	6	6	20.0	20.0	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



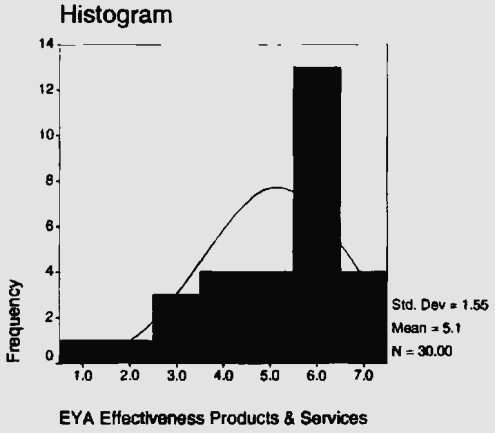
EYA Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	16.7	16.7	16.7
	4	2	6.7	6.7	23.3
	5	10	33.3	33.3	56.7
	6	9	30.0	30.0	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



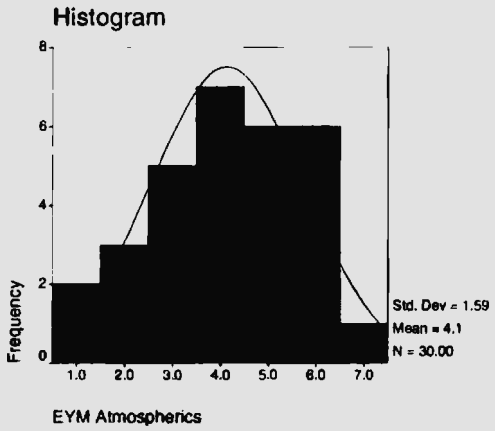
EYA Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	1	3.3	3.3	6.7
	3	3	10.0	10.0	16.7
	4	4	13.3	13.3	30.0
	5	4	13.3	13.3	43.3
	6	13	43.3	43.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



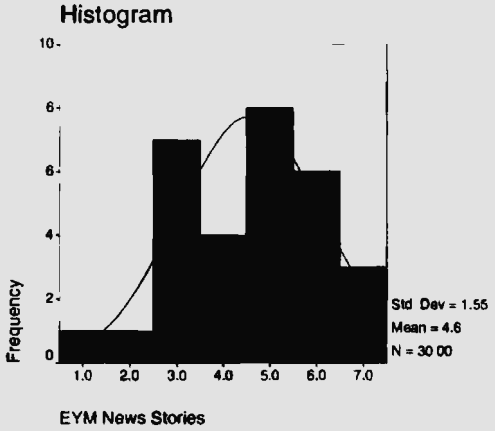
EYM Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	5	16.7	16.7	33.3
	4	7	23.3	23.3	56.7
	5	6	20.0	20.0	76.7
	6	6	20.0	20.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



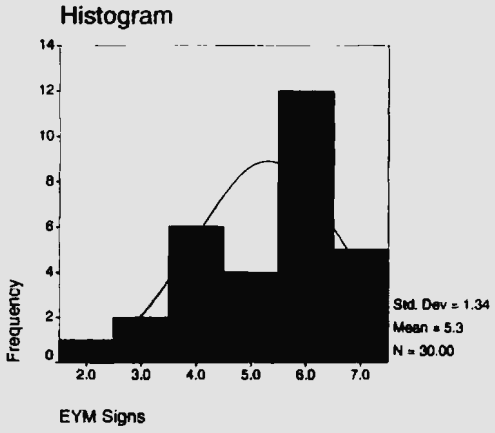
EYM News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	1	3.3	3.3	6.7
	3	7	23.3	23.3	30.0
	4	4	13.3	13.3	43.3
	5	8	26.7	26.7	70.0
	6	6	20.0	20.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



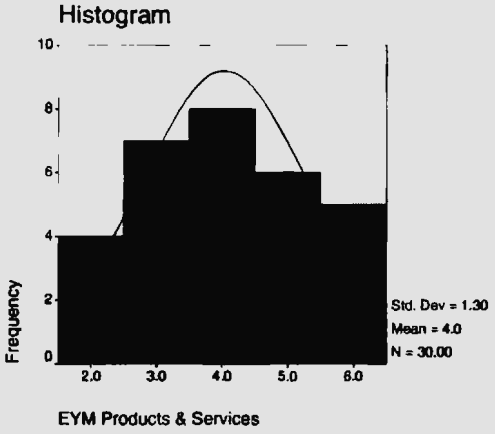
EYM Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	3	2	6.7	6.7	10.0
	4	6	20.0	20.0	30.0
	5	4	13.3	13.3	43.3
	6	12	40.0	40.0	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



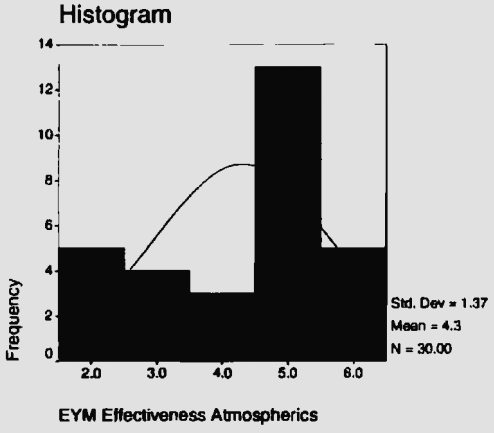
EYM Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	13.3	13.3	13.3
	3	7	23.3	23.3	36.7
	4	8	26.7	26.7	63.3
	5	6	20.0	20.0	83.3
	6	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



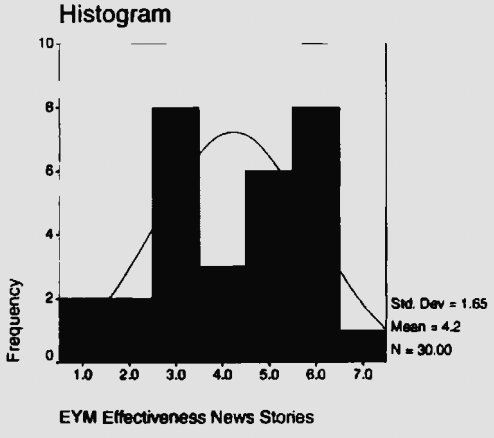
EYM Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	16.7	16.7	16.7
	3	4	13.3	13.3	30.0
	4	3	10.0	10.0	40.0
	5	13	43.3	43.3	83.3
	6	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



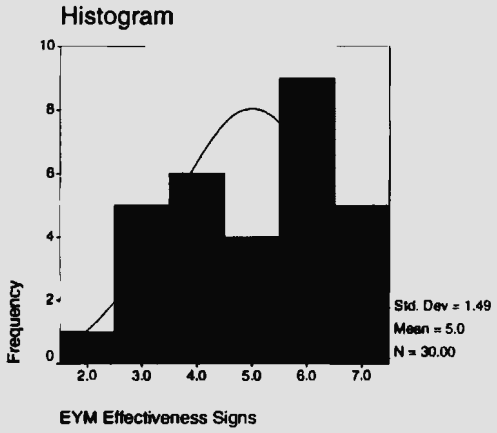
EYM Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	2	6.7	6.7	13.3
	3	8	26.7	26.7	40.0
	4	3	10.0	10.0	50.0
	5	6	20.0	20.0	70.0
	6	8	26.7	26.7	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



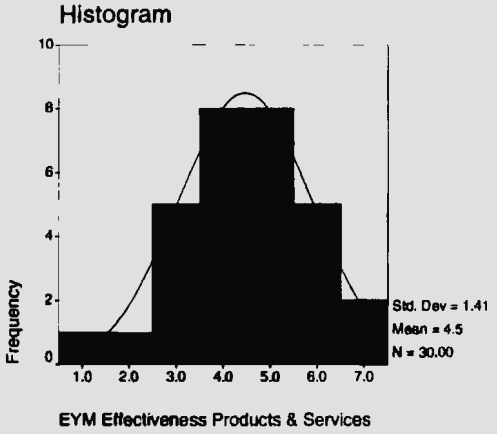
EYM Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	3.3	3.3	3.3
	3	5	16.7	16.7	20.0
	4	6	20.0	20.0	40.0
	5	4	13.3	13.3	53.3
	6	9	30.0	30.0	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



EYM Effectiveness Products & Services

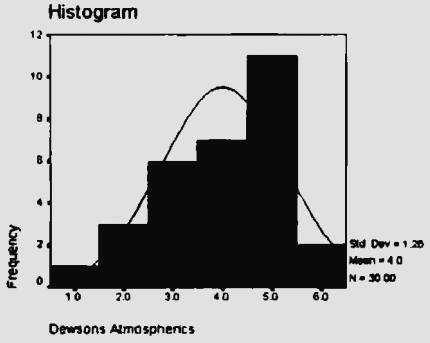
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	1	3.3	3.3	6.7
	3	5	16.7	16.7	23.3
	4	8	26.7	26.7	50.0
	5	8	26.7	26.7	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



Distribution of Data (Malaysians)

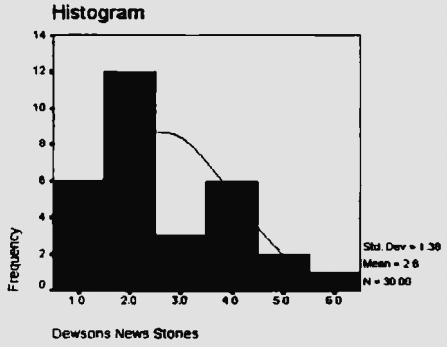
Dewsons News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	20.0	20.0	20.0
	2	12	40.0	40.0	60.0
	3	3	10.0	10.0	70.0
	4	6	20.0	20.0	90.0
	5	2	6.7	6.7	96.7
	6	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



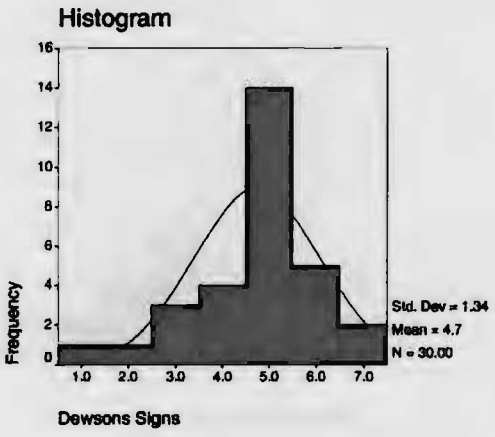
Dewsons Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	6	20.0	20.0	33.3
	4	7	23.3	23.3	56.7
	5	11	36.7	36.7	93.3
	6	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



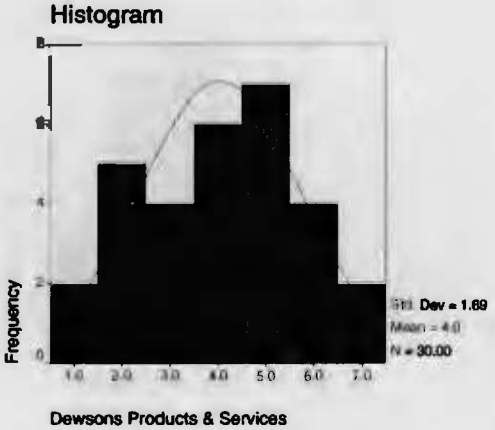
Dewsons Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	1	3.3	3.3	6.7
	3	3	10.0	10.0	16.7
	4	4	13.3	13.3	30.0
	5	14	46.7	46.7	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



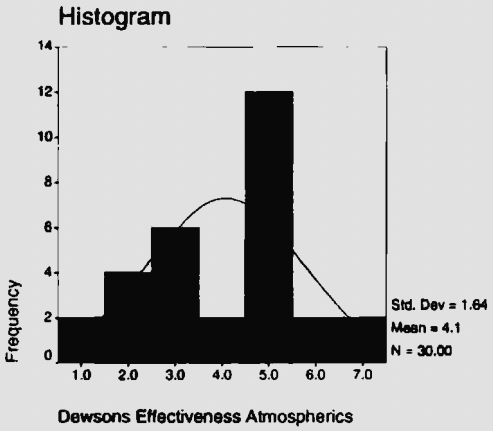
Dewsons Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	5	16.7	16.7	23.3
	3	4	13.3	13.3	36.7
	4	6	20.0	20.0	56.7
	5	7	23.3	23.3	80.0
	6	4	13.3	13.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



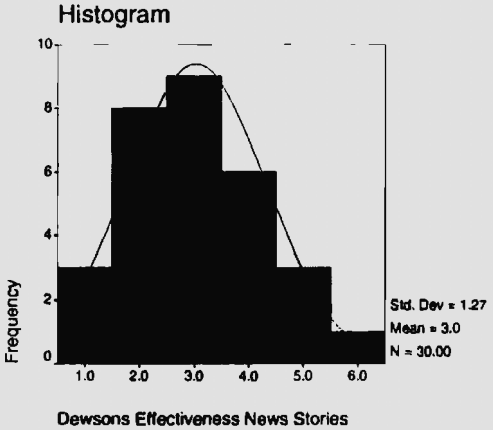
Dewsons Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	4	13.3	13.3	20.0
	3	6	20.0	20.0	40.0
	4	2	6.7	6.7	46.7
	5	12	40.0	40.0	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



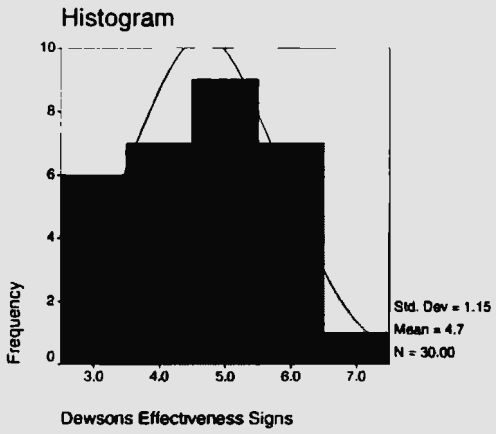
Dewsons Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	8	26.7	26.7	36.7
	3	9	30.0	30.0	66.7
	4	6	20.0	20.0	86.7
	5	3	10.0	10.0	96.7
	6	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



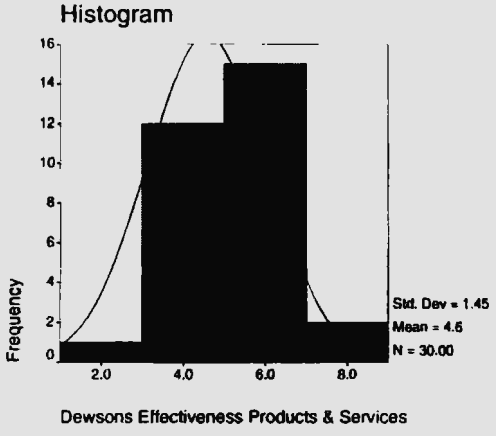
Dewsons Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	6	20.0	20.0	20.0
	4	7	23.3	23.3	43.3
	5	9	30.0	30.0	73.3
	6	7	23.3	23.3	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



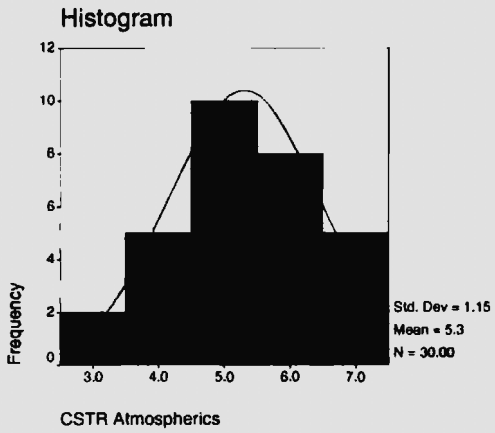
Dewsons Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	3	8	26.7	26.7	30.0
	4	4	13.3	13.3	43.3
	5	8	26.7	26.7	70.0
	6	7	23.3	23.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



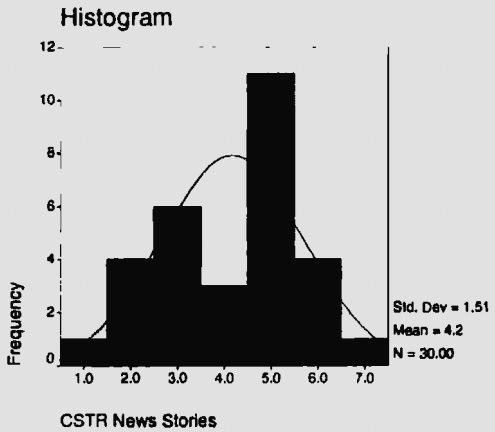
CSTR Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	2	6.7	6.7	6.7
	4	5	16.7	16.7	23.3
	5	10	33.3	33.3	56.7
	6	8	26.7	26.7	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



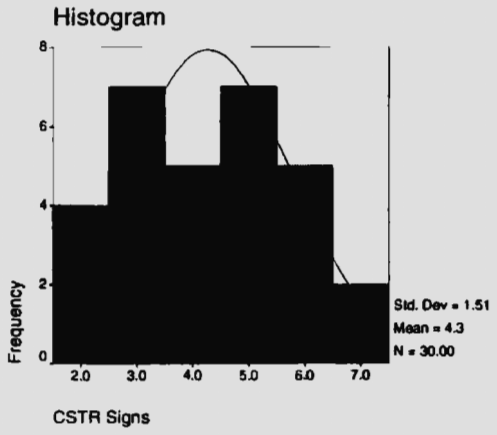
CSTR News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	4	13.3	13.3	16.7
	3	6	20.0	20.0	36.7
	4	3	10.0	10.0	46.7
	5	11	36.7	36.7	83.3
	6	4	13.3	13.3	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



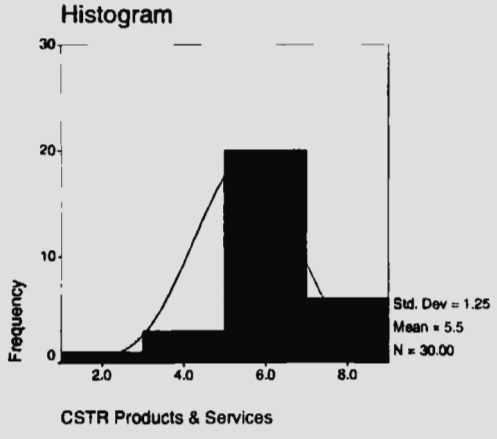
CSTR Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	13.3	13.3	13.3
	3	7	23.3	23.3	36.7
	4	5	16.7	16.7	53.3
	5	7	23.3	23.3	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



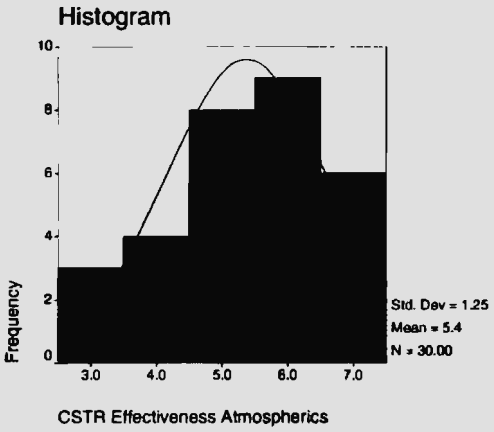
CSTR Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	4	3	10.0	10.0	13.3
	5	10	33.3	33.3	46.7
	6	10	33.3	33.3	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



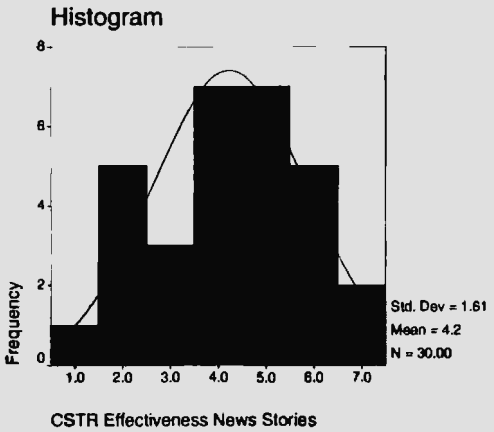
CSTR Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	3	10.0	10.0	10.0
	4	4	13.3	13.3	23.3
	5	8	26.7	26.7	50.0
	6	9	30.0	30.0	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



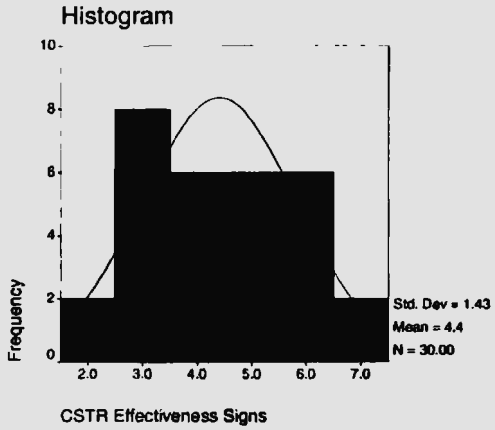
CSTR Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	5	16.7	16.7	20.0
	3	3	10.0	10.0	30.0
	4	7	23.3	23.3	53.3
	5	7	23.3	23.3	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



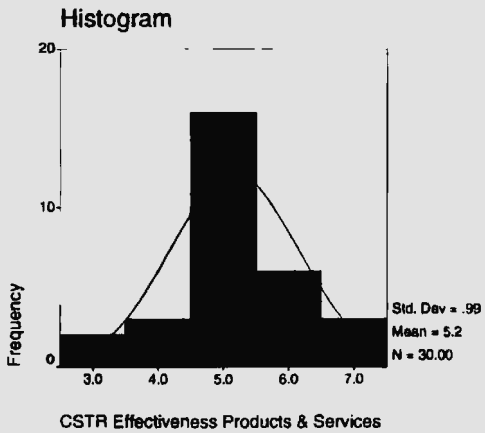
CSTR Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	8	26.7	26.7	33.3
	4	6	20.0	20.0	53.3
	5	6	20.0	20.0	73.3
	6	6	20.0	20.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



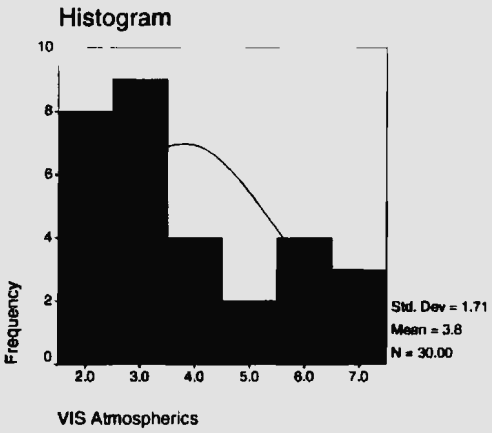
CSTR Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	2	6.7	6.7	6.7
	4	3	10.0	10.0	16.7
	5	16	53.3	53.3	70.0
	6	6	20.0	20.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



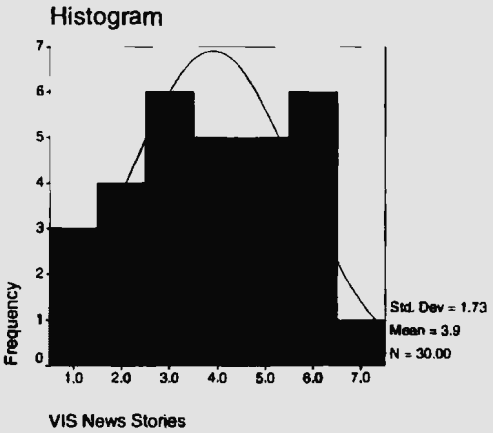
VIS Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	8	26.7	26.7	26.7
	3	9	30.0	30.0	56.7
	4	4	13.3	13.3	70.0
	5	2	6.7	6.7	76.7
	6	4	13.3	13.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



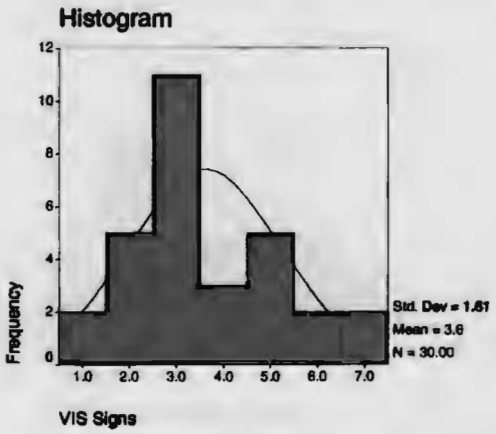
VIS News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	4	13.3	13.3	23.3
	3	6	20.0	20.0	43.3
	4	5	16.7	16.7	60.0
	5	5	16.7	16.7	76.7
	6	6	20.0	20.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



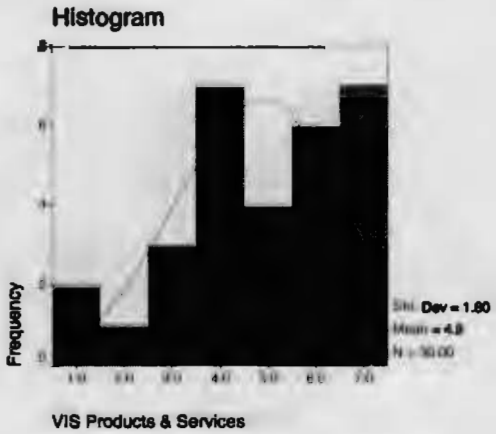
VIS Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	5	16.7	16.7	23.3
	3	11	36.7	36.7	60.0
	4	3	10.0	10.0	70.0
	5	5	16.7	16.7	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



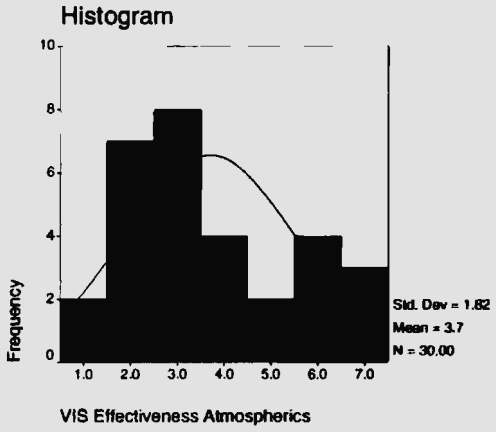
VIS Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	1	3.3	3.3	10.0
	3	3	10.0	10.0	20.0
	4	7	23.3	23.3	43.3
	5	4	13.3	13.3	56.7
	6	6	20.0	20.0	76.7
	7	7	23.3	23.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



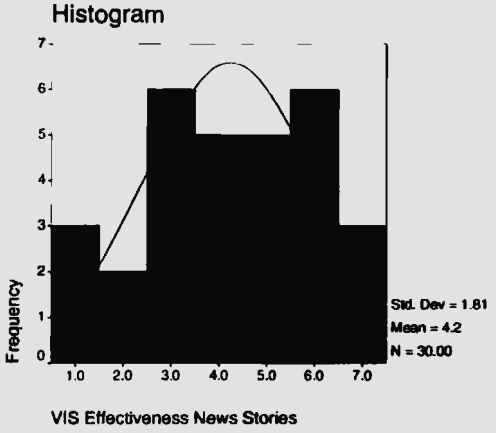
VIS Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	7	23.3	23.3	30.0
	3	8	26.7	26.7	56.7
	4	4	13.3	13.3	70.0
	5	2	6.7	6.7	76.7
	6	4	13.3	13.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



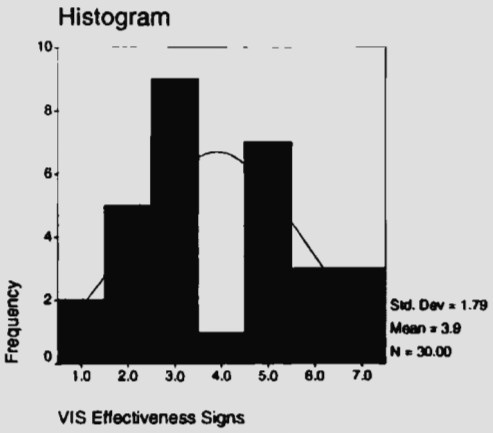
VIS Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	2	6.7	6.7	16.7
	3	6	20.0	20.0	36.7
	4	5	16.7	16.7	53.3
	5	5	16.7	16.7	70.0
	6	6	20.0	20.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



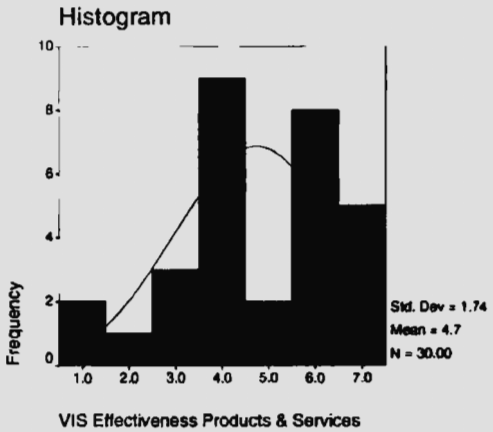
VIS Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	5	16.7	16.7	23.3
	3	9	30.0	30.0	53.3
	4	1	3.3	3.3	56.7
	5	7	23.3	23.3	80.0
	6	3	10.0	10.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



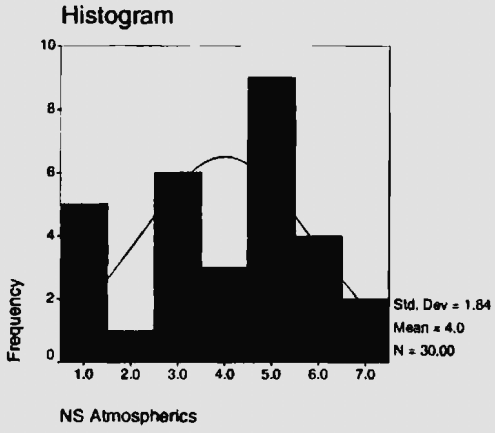
VIS Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	1	3.3	3.3	10.0
	3	3	10.0	10.0	20.0
	4	9	30.0	30.0	50.0
	5	2	6.7	6.7	56.7
	6	8	26.7	26.7	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



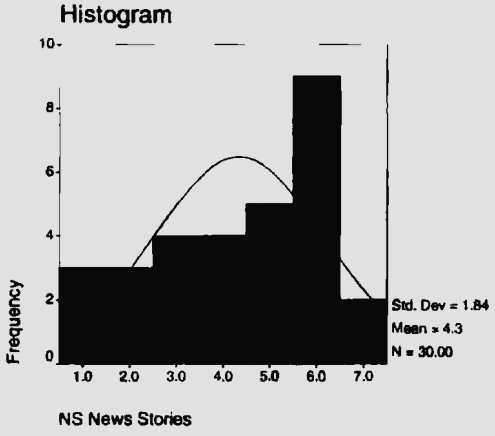
NS Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	16.7	16.7	16.7
	2	1	3.3	3.3	20.0
	3	6	20.0	20.0	40.0
	4	3	10.0	10.0	50.0
	5	9	30.0	30.0	80.0
	6	4	13.3	13.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



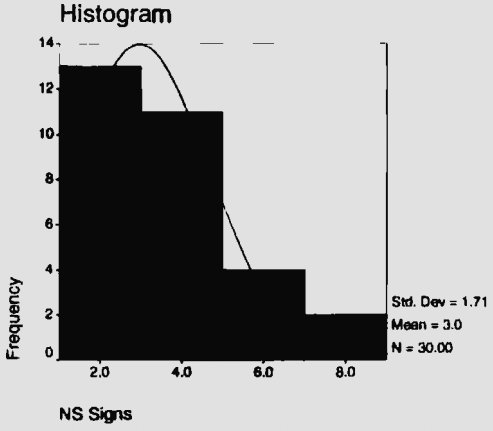
NS News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	3	10.0	10.0	20.0
	3	4	13.3	13.3	33.3
	4	4	13.3	13.3	46.7
	5	5	16.7	16.7	63.3
	6	9	30.0	30.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



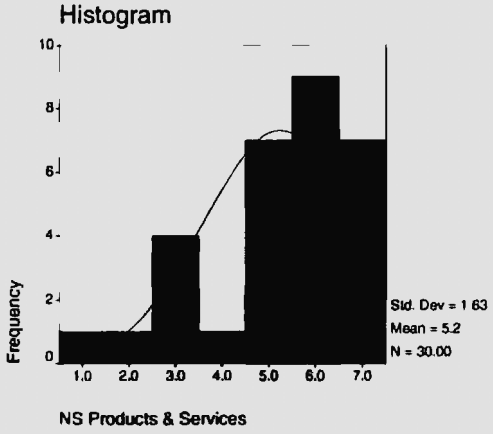
NS Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	23.3	23.3	23.3
	2	6	20.0	20.0	43.3
	3	8	26.7	26.7	70.0
	4	3	10.0	10.0	80.0
	5	4	13.3	13.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



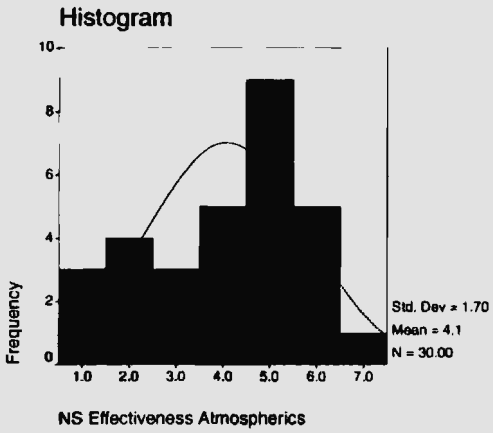
NS Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	1	3.3	3.3	6.7
	3	4	13.3	13.3	20.0
	4	1	3.3	3.3	23.3
	5	7	23.3	23.3	46.7
	6	9	30.0	30.0	76.7
	7	7	23.3	23.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



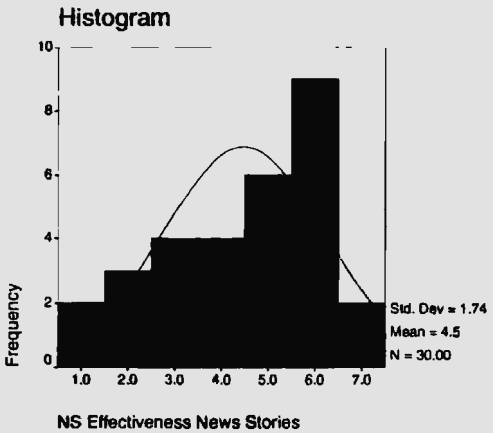
NS Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	4	13.3	13.3	23.3
	3	3	10.0	10.0	33.3
	4	5	16.7	16.7	50.0
	5	9	30.0	30.0	80.0
	6	5	16.7	16.7	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



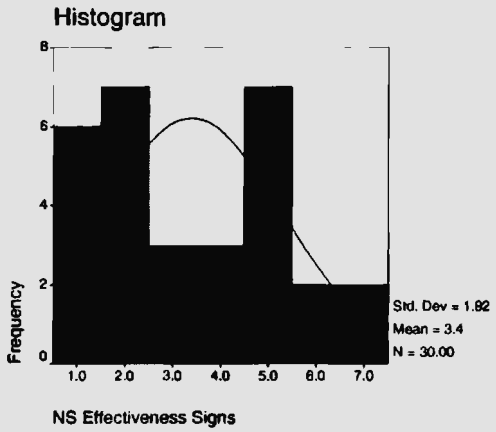
NS Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	4	13.3	13.3	30.0
	4	4	13.3	13.3	43.3
	5	6	20.0	20.0	63.3
	6	9	30.0	30.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



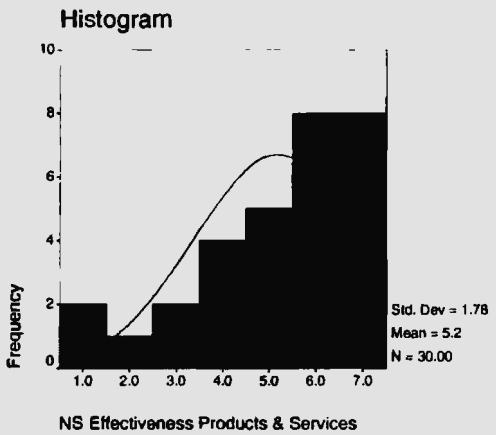
NS Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	20.0	20.0	20.0
	2	7	23.3	23.3	43.3
	3	3	10.0	10.0	53.3
	4	3	10.0	10.0	63.3
	5	7	23.3	23.3	86.7
	6	2	6.7	6.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



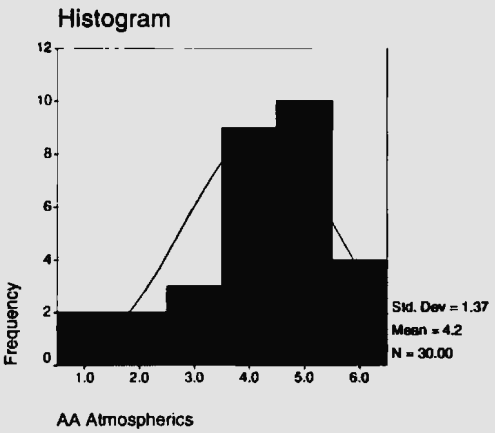
NS Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	1	3.3	3.3	10.0
	3	2	6.7	6.7	16.7
	4	4	13.3	13.3	30.0
	5	5	16.7	16.7	46.7
	6	8	26.7	26.7	73.3
	7	8	26.7	26.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



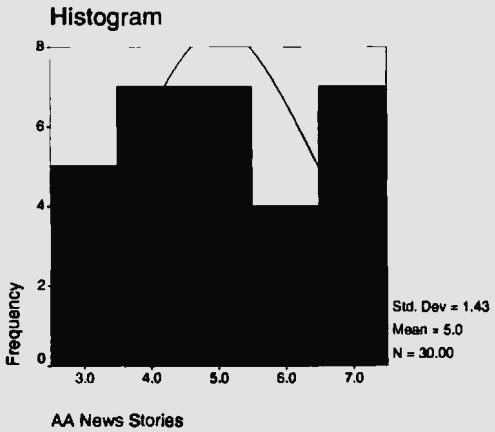
AA Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	2	6.7	6.7	13.3
	3	3	10.0	10.0	23.3
	4	9	30.0	30.0	53.3
	5	10	33.3	33.3	86.7
	6	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



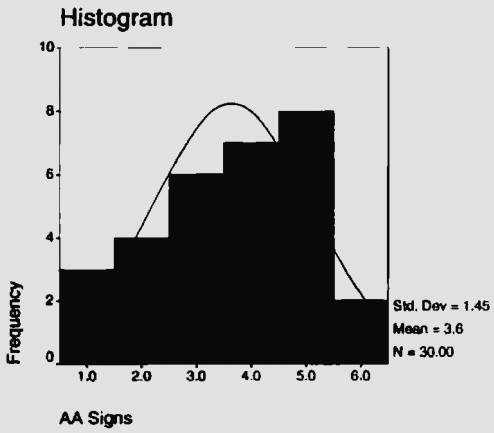
AA News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	16.7	16.7	16.7
	4	7	23.3	23.3	40.0
	5	7	23.3	23.3	63.3
	6	4	13.3	13.3	76.7
	7	7	23.3	23.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



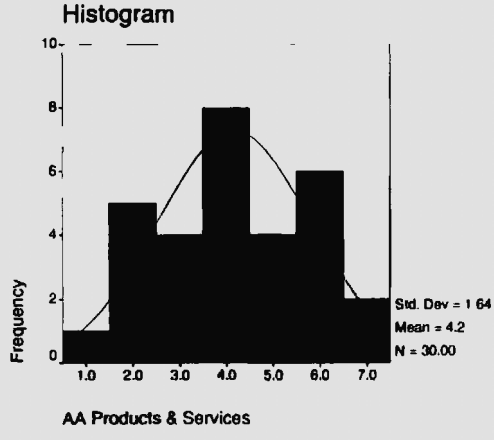
AA Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	4	13.3	13.3	23.3
	3	6	20.0	20.0	43.3
	4	7	23.3	23.3	66.7
	5	8	26.7	26.7	93.3
	6	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



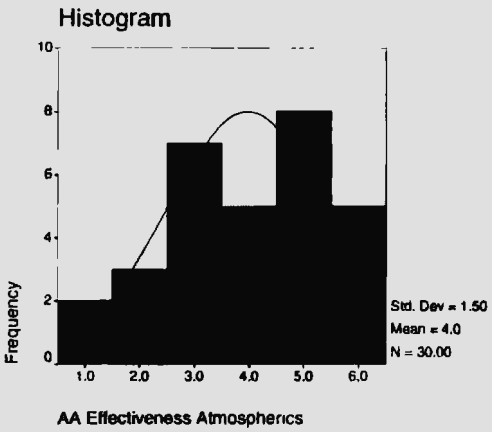
AA Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	5	16.7	16.7	20.0
	3	4	13.3	13.3	33.3
	4	8	26.7	26.7	60.0
	5	4	13.3	13.3	73.3
	6	6	20.0	20.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



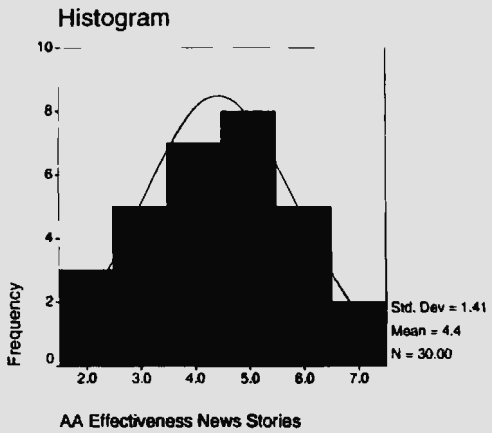
AA Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	7	23.3	23.3	40.0
	4	5	16.7	16.7	56.7
	5	8	26.7	26.7	83.3
	6	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



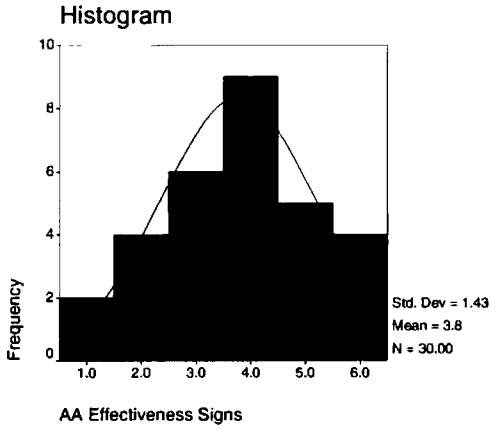
AA Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	10.0	10.0	10.0
	3	5	16.7	16.7	26.7
	4	7	23.3	23.3	50.0
	5	8	26.7	26.7	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



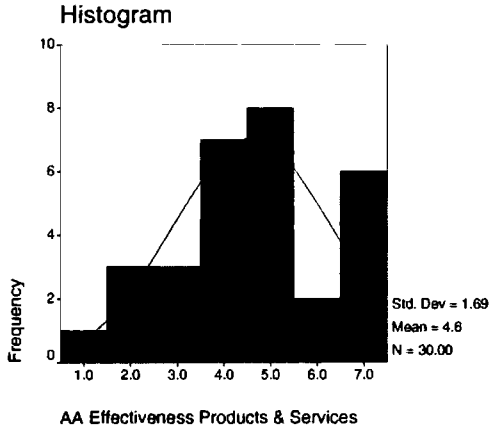
AA Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	4	13.3	13.3	20.0
	3	6	20.0	20.0	40.0
	4	9	30.0	30.0	70.0
	5	5	16.7	16.7	86.7
	6	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



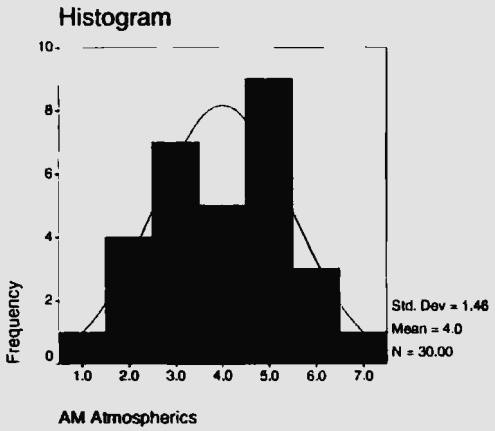
AA Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	3	10.0	10.0	23.3
	4	7	23.3	23.3	46.7
	5	8	26.7	26.7	73.3
	6	2	6.7	6.7	80.0
	7	6	20.0	20.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



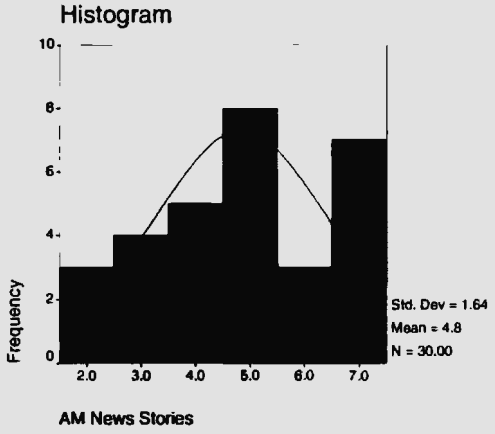
AM Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	4	13.3	13.3	16.7
	3	7	23.3	23.3	40.0
	4	5	16.7	16.7	56.7
	5	9	30.0	30.0	86.7
	6	3	10.0	10.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



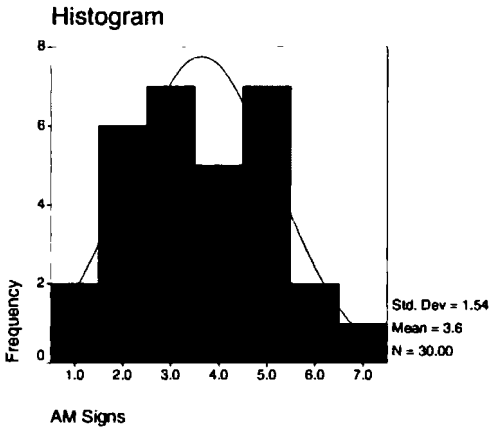
AM News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	10.0	10.0	10.0
	3	4	13.3	13.3	23.3
	4	5	16.7	16.7	40.0
	5	8	26.7	26.7	66.7
	6	3	10.0	10.0	76.7
	7	7	23.3	23.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



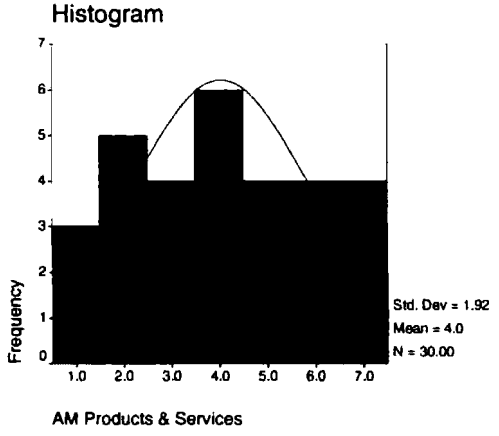
AM Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	6	20.0	20.0	26.7
	3	7	23.3	23.3	50.0
	4	5	16.7	16.7	66.7
	5	7	23.3	23.3	90.0
	6	2	6.7	6.7	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



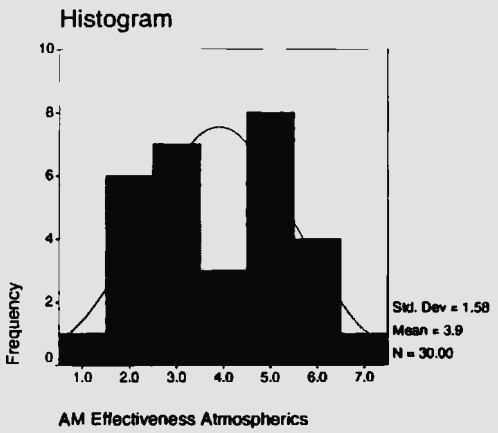
AM Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	5	16.7	16.7	26.7
	3	4	13.3	13.3	40.0
	4	6	20.0	20.0	60.0
	5	4	13.3	13.3	73.3
	6	4	13.3	13.3	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



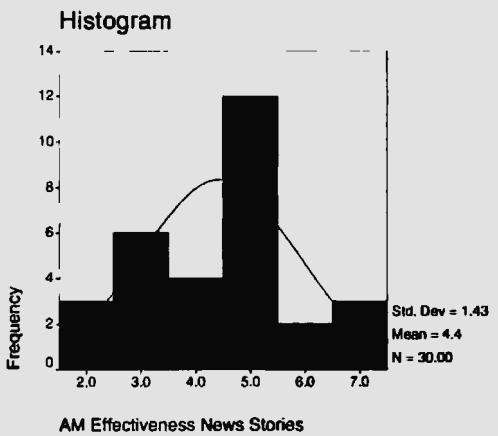
AM Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	6	20.0	20.0	23.3
	3	7	23.3	23.3	46.7
	4	3	10.0	10.0	56.7
	5	8	26.7	26.7	83.3
	6	4	13.3	13.3	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



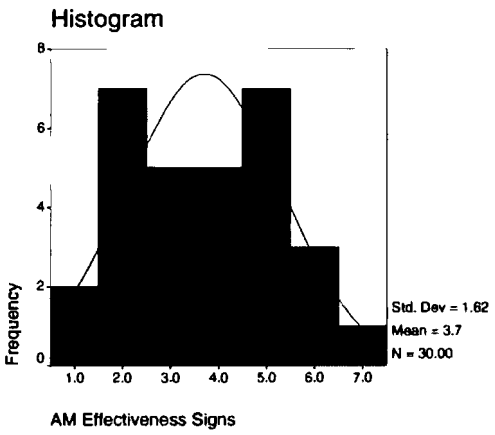
AM Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	10.0	10.0	10.0
	3	6	20.0	20.0	30.0
	4	4	13.3	13.3	43.3
	5	12	40.0	40.0	83.3
	6	2	6.7	6.7	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



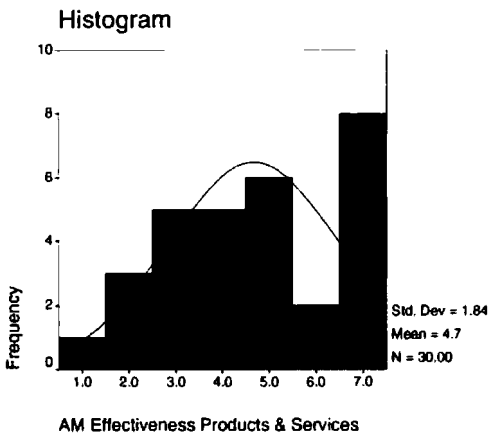
AM Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	7	23.3	23.3	30.0
	3	5	16.7	16.7	46.7
	4	5	16.7	16.7	63.3
	5	7	23.3	23.3	86.7
	6	3	10.0	10.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



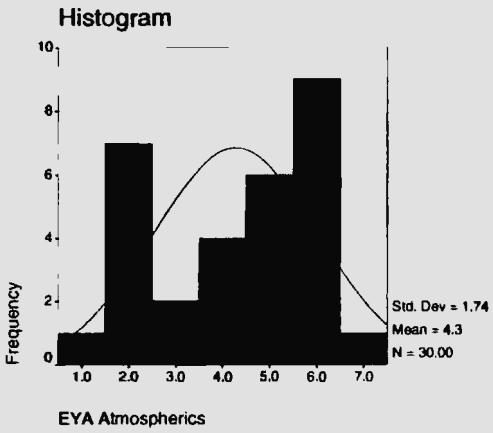
AM Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	5	16.7	16.7	30.0
	4	5	16.7	16.7	46.7
	5	6	20.0	20.0	66.7
	6	2	6.7	6.7	73.3
	7	8	26.7	26.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



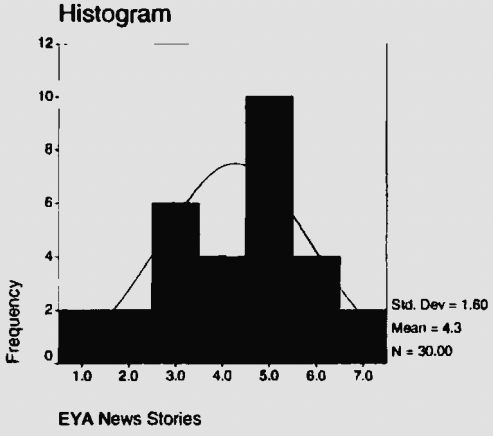
EYA Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	7	23.3	23.3	26.7
	3	2	6.7	6.7	33.3
	4	4	13.3	13.3	46.7
	5	6	20.0	20.0	66.7
	6	9	30.0	30.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



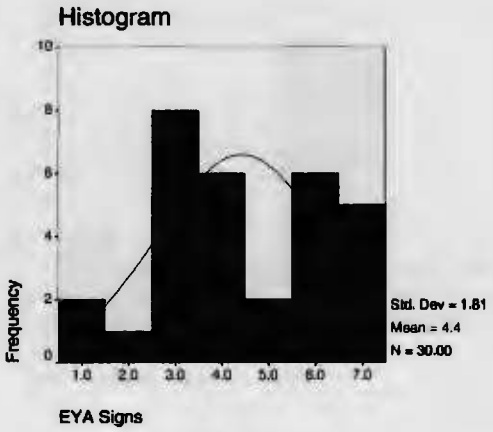
EYA News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	2	6.7	6.7	13.3
	3	6	20.0	20.0	33.3
	4	4	13.3	13.3	46.7
	5	10	33.3	33.3	80.0
	6	4	13.3	13.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



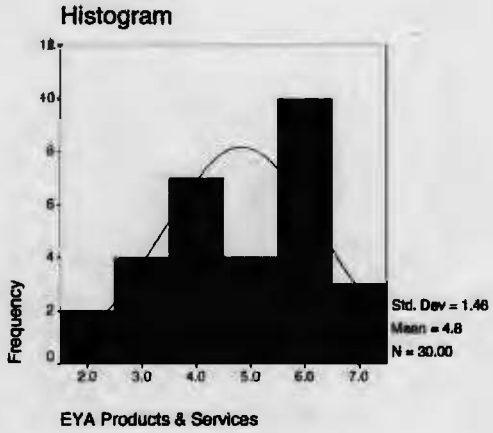
EYA Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	1	3.3	3.3	10.0
	3	8	26.7	26.7	36.7
	4	6	20.0	20.0	56.7
	5	2	6.7	6.7	63.3
	6	6	20.0	20.0	83.3
	7	5	16.7	16.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



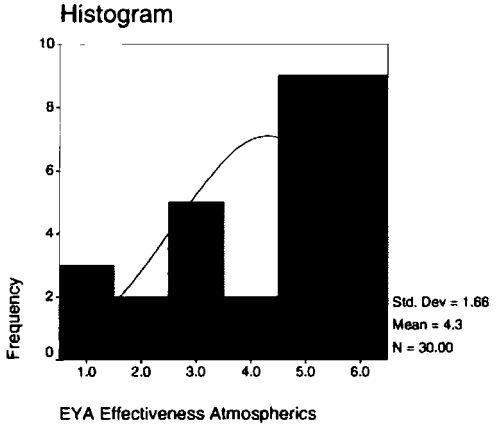
EYA Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	4	13.3	13.3	20.0
	4	7	23.3	23.3	43.3
	5	4	13.3	13.3	56.7
	6	10	33.3	33.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



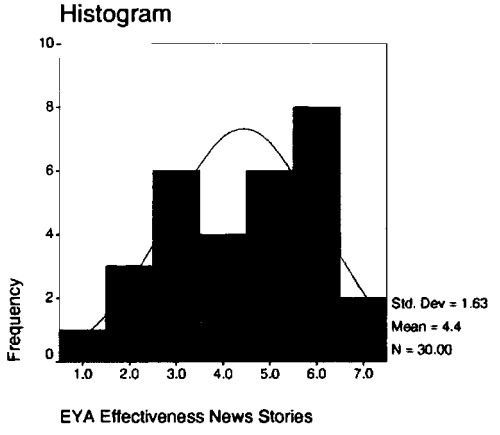
EYA Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	2	6.7	6.7	16.7
	3	5	16.7	16.7	33.3
	4	2	6.7	6.7	40.0
	5	9	30.0	30.0	70.0
	6	9	30.0	30.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



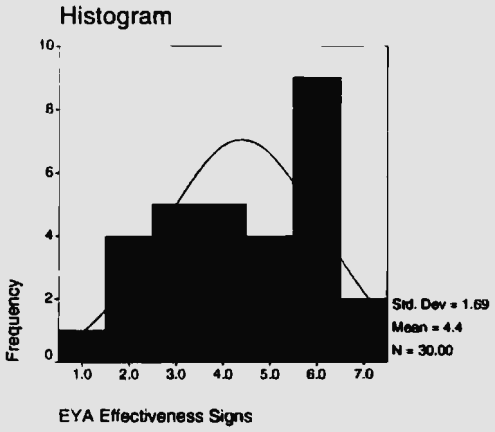
EYA Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	6	20.0	20.0	33.3
	4	4	13.3	13.3	46.7
	5	6	20.0	20.0	66.7
	6	8	26.7	26.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



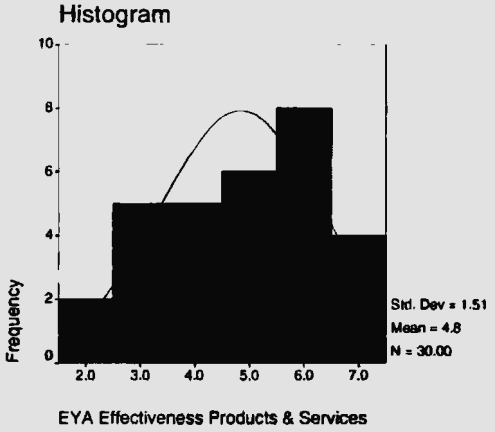
EYA Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	4	13.3	13.3	16.7
	3	5	16.7	16.7	33.3
	4	5	16.7	16.7	50.0
	5	4	13.3	13.3	63.3
	6	9	30.0	30.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



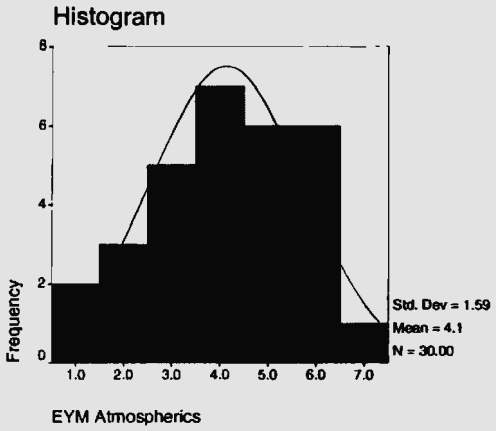
EYA Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	6.7	6.7	6.7
	3	5	16.7	16.7	23.3
	4	5	16.7	16.7	40.0
	5	6	20.0	20.0	60.0
	6	8	26.7	26.7	86.7
	7	4	13.3	13.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



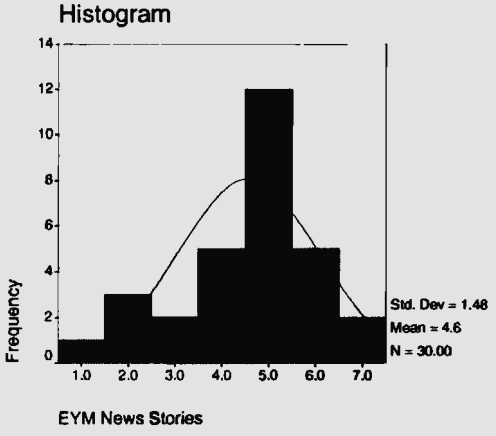
EYM Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	5	16.7	16.7	33.3
	4	7	23.3	23.3	56.7
	5	6	20.0	20.0	76.7
	6	6	20.0	20.0	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



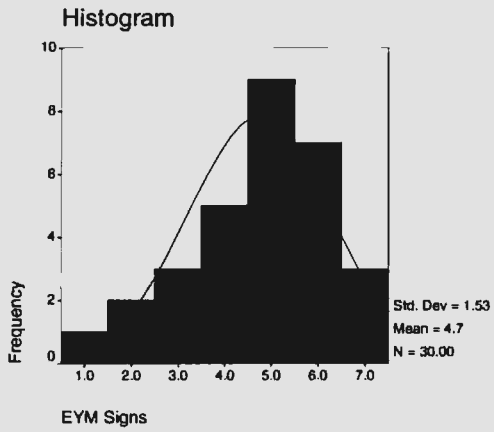
EYM News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	2	6.7	6.7	20.0
	4	5	16.7	16.7	36.7
	5	12	40.0	40.0	76.7
	6	5	16.7	16.7	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



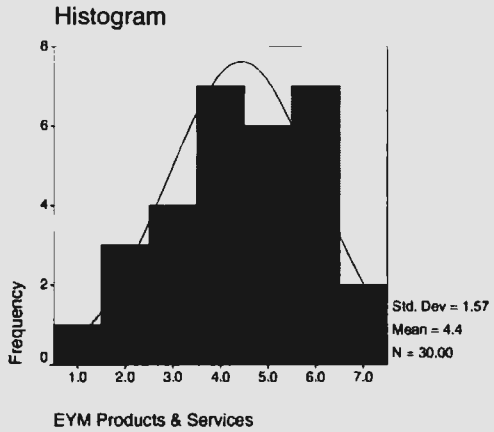
EYM Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	2	6.7	6.7	10.0
	3	3	10.0	10.0	20.0
	4	5	16.7	16.7	36.7
	5	9	30.0	30.0	66.7
	6	7	23.3	23.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



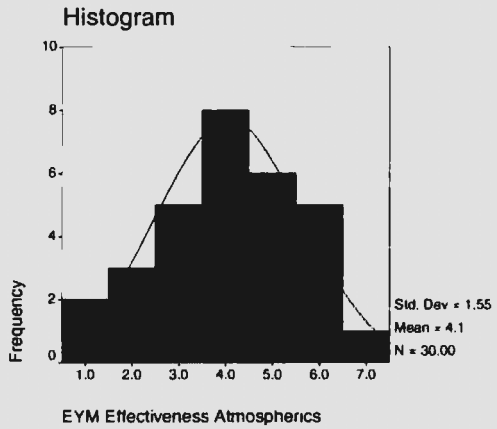
EYM Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.3	3.3	3.3
	2	3	10.0	10.0	13.3
	3	4	13.3	13.3	26.7
	4	7	23.3	23.3	50.0
	5	6	20.0	20.0	70.0
	6	7	23.3	23.3	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



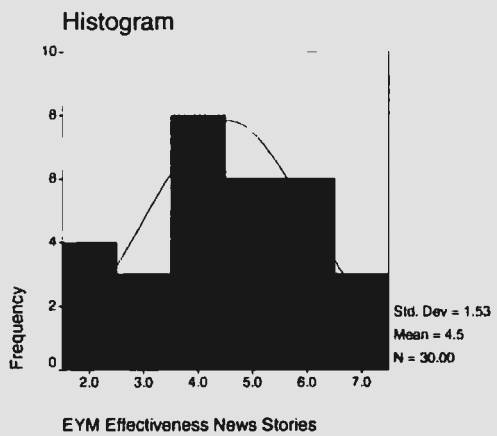
EYM Effectiveness Atmospherics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	3	10.0	10.0	16.7
	3	5	16.7	16.7	33.3
	4	8	26.7	26.7	60.0
	5	6	20.0	20.0	80.0
	6	5	16.7	16.7	96.7
	7	1	3.3	3.3	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



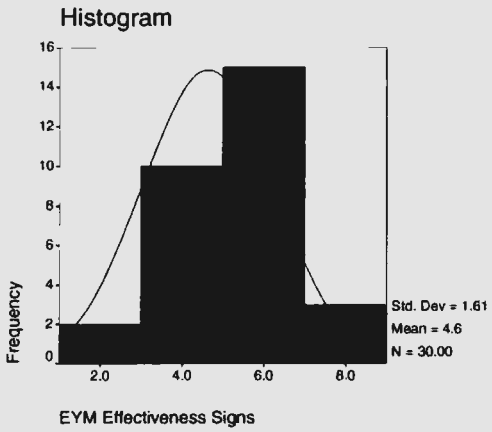
EYM Effectiveness News Stories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	13.3	13.3	13.3
	3	3	10.0	10.0	23.3
	4	8	26.7	26.7	50.0
	5	6	20.0	20.0	70.0
	6	6	20.0	20.0	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



EYM Effectiveness Signs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	3	6	20.0	20.0	26.7
	4	4	13.3	13.3	40.0
	5	8	26.7	26.7	66.7
	6	7	23.3	23.3	90.0
	7	3	10.0	10.0	100.0
	Total	30	100.0	100.0	
Total		30	100.0		



EYM Effectiveness Products & Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	6.7	6.7	6.7
	2	1	3.3	3.3	10.0
	3	3	10.0	10.0	20.0
	4	5	16.7	16.7	36.7
	5	8	26.7	26.7	63.3
	6	9	30.0	30.0	93.3
	7	2	6.7	6.7	100.0
	Total	30	100.0	100.0	
Total		30	100.0