# Chapter 1 Introduction

Nowadays, advertisement is seen everywhere in our living society. In traditional ways of advertising channel such as radio broadcasts, television commercials, magazines, newspapers, and building signboards etc., advertisement shows out in order to catch every consumer's eyes in various ways. Since the blooming of World Wide Web (known as WWW or Internet) usage, people become even more dependent on the Internet not only in everyday living but at work as well (Forcier, 1996). For corporation, online advertising is much more costless contrasting to the traditional way. It has two advantages, cost down in accounting edge and high availability to consumer. These two advantages help corporation sent their product and service related messages to the masses. To convince, to change, to persuade the consumer's perception, attitude, and action to reach the goal of advertising benefit (Grant, 2002).

In previous research of online advertising, there are many trying to understand how it presents in online environment, both in presenting format and in presenting message text. However, there are few to further discuss these two basic elements in online advertising together. How these two elements work together, and if there are any relationship effect within? Besides, previous research shows both online advertising format and advertising message would have held different attitude toward the ad affected by general human trait, gender (Philip and Suri, 2004).

There are three sections in this chapter: research background, research problem, and research objective. Each section is discussed as follow.

# 1.1 Research Background

Internet is the major representative industry in Information Technology development. After the developing of Computer Graphical Interface system in 1990s, Internet is gradually adapted by the computer user comprehensively (Abbate, 1999; Castells, 2001), and rapidly become one of the most useful tools in everyday living, learning, and even working environments (Forcier, 1996; Organization for Economic Co-operation and Development, 2008). According to U. S. Department of Commerce reported in 2002, Internet user is growing with more than 2 million users a month in average. Therefore, it is without doubts having major impacts on either public sectors or private sectors, such as every aspect of society, culture, politics, economics, and education (Grabe and Grabe, 2006).

Due to the comprehensively use of Internet, especially in business, it becomes the main way of information exchange and search for products and services, which accelerating the booming of E-Commerce industry (Chau, Khoo, Straub, Kadiyala, and Kuechler, 2005). The estimated global market value of e-commerce industry is approximately US\$ 16 billion in 1998 (Guglielmo, 1998), and growing fast up to approximately US\$ 1 trillion in 2002 (Grant, 2002).

In such rapidly growing trend of e-commerce, online advertising gets corporations' attention. The average growth rate of online advertising revenue in United State is 29 percent during 2003 to 2007. In 2007 specifically, comparing to 2006's US\$ 169 billion, it rises to US\$ 212 billion with a 26 percent growth rate (Interactive Advertising Bureau, IAB, 2008). Considering to this potentially expansion ability of online advertising market, either practitioners or scholars start to shift their focus from traditional advertising to online advertising, such as Online Advertising Format (Berthon, Pitt, and Watson, 1996; Coyle and Thorson, 2001; Ducoffe, 1996).

Research shows that the attitude of online advertising which consumer holds is affected by the overall web page presenting, the particular brand advertising, and the advertisement itself (Brackett and Carr, 2001; Coyle and Thorson, 2001; Edwards, Li, and Lee, 2002; Tse and Lee, 2001; Xia and Sudharshan, 2000). Nowadays, there are varieties of online advertising format can be seen on Internet. But no matter how the advertisement is presented or designed, the only intention of advertising is persuading consumer to arouse further 'click' and providing them with more detail information. Among all kinds of formats, online advertising format can categorize into six types of forms generally: Banner, Floating, Interstitial, Large Rectangle, Skyscraper, and Pop-up (Burns and Lutz, 2006). Take pop-up as an example, there are 32.8 percent of American browsers receive the pop-up ads, and successfully generate more than 2800 million times 'click' during January to May in 2001 (Jupiter Media Metrix, 2001). In research of online advertising, it has gradually changed discussing overall attitude toward advertisement into discussing different attitude toward online advertising formats formed from specific format (Burns and Lutz, 2006; Ducoffe, 1996; Li and Leckenby, 2004; Rodegers and Thorson, 2000).

For either traditional advertising or online advertising research, studies discussing the content within advertisement itself, this is another research aspect. The content of advertisement is also having effect upon consumer emotion, attitude, and behavior toward the ad, as well as format does (Olney, Holbrook, and Batra, 1991). It stands for Internet environment likewise. Observing the use of practitioners in websites, most content of online advertising presenting can roughly divide into two major categories: sales promotional message and non-sales promotional message (Mela, Gupta, and Lehmann, 1997). Where there is 40 percent of browser would notice 'non-sales' promotional message advertisement, like Coca-Cola's new flavor ads; and 48 percent of browser would pay even more attention to 'sales' promotional message advertisement, such as PlayStation 3's 15% Off sales promotion ads (Jupiter Research, 1999). Hence, the content indeed is another important dimension affecting consumer behavior.

Clearly, the format and content, these formation elements of online advertising do influence consumer side in some particular ways, which will be reflecting and valued as advertising effectiveness. Somehow, that is not just advertising side that counts all affection. Consumer side itself plays another major part as well, the consumer traits. The traits like involvement, personalities, experiences, habits, expectations, and most of all and in general, basic demographic trait of gender. Previous research shows gender as one mainly trait of demographic is sensitive in marketing and research analysis process with its data distinguishability, accessibility, measurability, generalizability (Darley and Smith, 1995; Meyers-Levy and Sternthal, 1991). In addition, research shows that male consumer is more trust to and acquainted with Internet environment than female consumer does, due to the trust and risk taking that man and woman undergoing differently. Resulting male prefers receiving ad message with quality and functional information inside where as female adores sales and discount even more (Herring, 1998; Rodgers and Harris, 2003; Suri and Monroe, 2003; Weiser, 2000; Wells and Chen, 1999; Wolin and Korgaonkar, 2003). In light of differentiation between man and woman, consumer gender has moderator effect in advertising effectiveness.

In most advertising research, is measured by advertising effectiveness, and basically use in positive viewpoints, such as advertising cognitive, advertising attitude, behavior intention etc. (Monroe and Chapman, 1987; Sinha and Smith, 2000; Thaler, 1985). However, in practice, most direct responds come from consumer are complaining for advertising being interrupting and intrusive, and cause some negative effectiveness (Aaker and Bruzzone, 1985; Chatterjee, 2008; Ducoffe, 1996; Greyser, 1973; Krugman, 1983; Vespe, 1997). Therefore, instead of using positive viewpoints to examine advertising effectiveness, negative viewpoint like intrusiveness, irritation, and avoidance are shown in recent research (Chatterjee, 2008; Edwards et al., 2002; Gao, Koufaris, and Ducoffe, 2004; Ha, 2008; Li, Edwards, and Lee, 2002).

Besides the theoretical background, in practice of online advertising of the online tourism websites are better suitable research industry. In light of the products or services in this industry, they are all categorized as relatively high pricing as high product involvement for both consumer genders. In addition, most information consists within the websites are presented through online advertising in the first place. In

order to perform as a vivid or informative website surfing environment, the website is consisted and presented by varieties of online advertising formats embedded with different kinds of promotional messages. Moreover, either actual or virtual tourism industry that consumer completes the final purchase behavior, the online tourism websites are the first priority means or steps of action gathering information for most consumers. Thus, this research focuses on the online advertising that presented in online tourism websites.

In summary, online advertising provides consumer related information by giving some forms of stimulation to arouse consumer attention throughout the process of information exchange and search on Internet, and then forms e-commerce (Chau et al., 2005; Zwass, 2000). Considering both online advertising format and content's studies, which are well conducted and discussed separately in the past. However, in reality, whatever the particular advertising that consumer faced, the advertising format and advertising content are both shown all together and work together. In addition, both of the two elements are affecting in two different aspects to influence consumer emotion, attitude, and behavior (Olney et al., 1991). Therefore, integrating these two basic online advertising elements, format and content, the interaction inside is much important either for scholar to add a new thinking or practitioner to use in designing the ad wisely and respectively, which forms the motivation of this research.

## 1.2 Research Problem

The most different between online advertising and the traditional one is the ability of 'interactivity,' such attribute comes from Internet itself. For the consumer point of view, it is one of the criteria to judge for advertising effectiveness (Hoffman and Novak, 1997; Leckenby and Li, 2000; Palmer, 1997). Except for the ability of interactivity affects the advertising effectiveness, the appearance of the ad either format or content shown on the website is affecting as well.

There are many forms of advertising proposed and discussed by scholars aiming at online advertising format subject. Nevertheless, few researches are conducted in multi-types compare, and most of related researches are conducted in both forms banner and pop-up comparing mainly. These two forms are the most differently in its appearance to every consumer while they are browsing on the websites (Burns and Lutz, 2006; Chatterjee, 2008; Ha, 2008). The appearance of banner advertising is more in a static way, which consumer can be easily neglected unconsciously while brows on the website without causing too much intrusiveness. Whereas, consumer is facing a more aggressive and dynamic ways of appearance, which cannot be neglected, intrusive, and need to close the window to resume encountering with pop-up advertising (Chatterjee, 2008; Edwards et al., 2002; Gao et al., 2004).

Besides format, the content of advertising is another aspect of research subject which also haves affection on advertising cognitive, advertising attitude, and consumer behavior. In previous research, Information Processing and Message Framing is the main subject in this field (Campbell and Diamond, 1990; Gendall, Hoek, Pope, and Young,

2006; Li and Meeds, 2007). From the way the advertising present, to the internal emotion responses after consumer receive or see the advertising, and perform physical reactions particularly, these are all within a process of information and message sending. Moreover, there are all connected to advertising design such as the format and the content. For instance, research shows that generally the advertising with sales promotion message is more effectively to arouse the desire of consumer to purchase the specific product and service in the short of upcoming time after the advertisement launched. Therefore, it has positive effective in advertising effectiveness. However, the result differs when the product attribute, original pricing level, consumer involvement level, and many other factors that makes different (Gendall et al., 2006).

As stated before, in research of online advertising format and promotion message, both are influenced by consumer traits like gender and involvement toward the specific product and service advertised in processing of advertising appearance or sending, because it results advertising cognitive, advertising attitude, and consumer behavior differently (Okazaki, 2007; Palanisamy, 2004; Wolin and Korgaonkar, 2003). For example, male consumer is more trust to and acquainted with Internet environment than female consumer does, due to the trust and risk taking that man and woman undergoing differently. Resulting male prefers receiving ad message with quality and functional information inside where as female adores sales and discount even more (Herring, 1998; Rodgers and Harris, 2003; Suri and Monroe, 2003; Weiser, 2000; Wells and Chen, 1999; Wolin and Korgaonkar, 2003).

All above stated, it has several conclusions with contradiction in some way. Lists as follow:

#### A. Banner vs. Pop-up Advertising Format

- a. Above all six general online advertising formats, the most widely utilized and easily recognized forms are banner and pop-up. The research shows banner form has significant edge in prolong browser's attention and recalling their memories toward specific advertising more completely afterward, which is better than pop-up does (Burns and Lutz, 2006; Chatterjee, 2008).
- b. In previous research, female consumer feels more trustless in virtual environment, and tends to seek more information or stimulation in order to ease the feeling (Rodgers and Harris, 2003; Wells and Chen, 1999). This is in sync with the results that pop-up has the most volume of stimulating effect toward browser (Burns and Lutz, 2006; Choi and Rifon, 2002). As female consumer needs particular stimulation to get attention at, which therefore could infers to female consumer is more attracted by pop-up than banner.

#### B. Sales vs. Non-sales Promotion Message

- a. Research shows that consumer notices advertisements with sales promotion message better, which is significantly higher than non-sales one. Moreover, considers sales promotion message with higher value perception and purchase intention than non-sales one does (Jupiter Research, 1999; Sinha and Smith, 2000).
- b. Unlike female consumer, male consumer tends to value nonsales promotion message such as quality and function more than discounts (Herring, 1998; Rodgers and Harris, 2003; Suri

and Monroe, 2003; Weiser, 2000; Wells and Chen, 1999; Wolin and Korgaonkar, 2003).

#### C. Intrusiveness

(Chatterjee, 2008).

In light of the perspective of Psychological Reactance theory in social psychology, people tend to feel more intenseness and pressure when binding to surroundings which beyond their self-control (Brehm, 1966; Brehm and Brehm, 1981). Intrusiveness is one of negative emotion feelings coming after resistance. Therefore:

- a. Banner which is easily neglected browsing the website, whereas pop-up is naturally design and work in opposite and causes highly intrusiveness to consumer (Gao et al., 2004). However, pop-up's appearance causing more negative emotion feelings to consumer than banner, somehow that is the reason pop-up advertising is contributing higher attention to and held longer recall by consumer after duration of time
- b. In previous research of sales promotion message, indeed this kind of message sending results better stimulation and arouses better sales figures in the short coming period of time afterward. Since sales promotion is much more stimulating, where could infer as the more intrusive in the ad, the more stimulating the advertisement is. When it comes up, or shows up, too frequently in times or too much differentiated in original price, consumer gets suspicious of the quality, the faultiness, and so on (Campbell and Diamond, 1990).

Above contradictions stated de facto exist in both scholars and practitioners fields. Therefore, it generates the motivation of this particular research, and emerges two research problems as follow:

- 1. How does the online advertising present in more properly manners and without causing too much intrusiveness for consumers?
- 2. Whether if there are any consumers gender moderate effects among online advertising formats, promotional messages, and the interaction in both formats and messages?
- 3. How does the online advertising elements utilized and designed more effectively and if there are any possible scholar rules for that matter?

# 1.3 Research Purpose

As followed above two sections, research background and research problem stated. This research attempts to figure out how the intrusiveness emerge within different online advertising formats matching with different promotion messages, as the core idea of research. In addition, to achieve several research purposes:

1. Throughout the quantitative analysis comes from a scenario experimental designed questionnaire data, this research explore what kind of match in online advertising formats with promotion messages does consumer face is less intrusiveness.

- 2. Determine whether there are consumer gender moderate effects when consumer faced toward online advertising.
- 3. The result in this research could provide a rule of advices for online advertising designer or practitioners to achieving maximized goal of advertising benefits in utilizing right online advertising design.



# Chapter 2 Literature Review

According to last chapter of introduction, this chapter will aim to discussing the previous research of four major parts in this research, which including online advertising format, promotion message, gender, and intrusiveness within this particular review chapter. Specify as follow.

# 2.1 Online Advertising Format

The presence of Internet makes business campaign shift from actual market in the real world to virtual market on WWW society (Rayport and Sviokla, 1994). In addition, e-commerce becomes one of the pushing powers in the development of world economic growth, together with its synergy of integrating between products and services' information and exchange worldwide (Chen, Chen, and Shao, 2003; Nah and Davis, 2002; Zwass, 2000). In such competitive business battle, online advertising is the major tactics been chose.

Compare to tradition advertising counterparties, business activities set on Internet is relatively costless and rather suitable to utilizing on integrate both internal and external business recourses (Zwass, 2000). Moreover, Internet user, consumer, is practically linked to divers online advertising environments twenty-four-seven everywhere. Thus, the corporate is willing to spend more effort on online advertising. In Table 2-1, the figures of advertising revenue shows that online advertising is been taking increasingly serious by corporate. Online advertising agencies in United States generated over US \$ 21 billion

advertising revenue in 2007, meanwhile; it have the average of 29% growth continuously in trend within recent 5 years from 2003 to 2007. Throughout the presence of online advertising, then consumer could receive variety of information instantly, and this is exactly one of the main purposes of corporate using online advertising on their products and services (IAB, 2008).

Table 2-1 Online Advertising Revenue

Year	Revenue <sup>a</sup>	Growth
2003	\$7,267	21%
2004	\$9,626	33%
2005	\$12,542	30%
2006	\$16,879	35%
2007	\$21,206	26%

Note: a. In US million dollars.

Source: Interactive Advertising Bureau, IAB, (2008). IAB Internet advertising revenue report [Online]. Available:

http://www.iab.net/insights\_research/530422/adrevenuereport [2008, May 23].

# 1. What is Online Advertising?

Online advertising is one of many forms generated from the original advertising. Therefore, before defining online advertising, knowing what is advertising as for the core concept is essential.

First, American Marketing Association defines advertising as "the placement of announcements and persuasive messages in time or space purchased in any of the mass media by business firms,

nonprofit organizations, government agencies, and individuals who seek to inform and/ or persuade members of a particular target market or audience about their products, services, organizations, or ideas." Second, Kotler (1999) defines advertising as "any paid forms of non-personal presentation and promotion of ideas, goods, or services through mass media such as newspaper, magazines, television, or radio by an identified sponsor." Therefore, advertising is utilized for message sending, which made by advertisers and paid to advertising agencies, in order to send out the messages and arouse purchase behavior of consumer.

Moreover, in sync with the emergence of Internet, the business campaigns between corporations shift from physical toward virtual environment. The traditional advertising idea combines with Internet results to form as online advertising. And based on the definitions of advertising, online advertising is defined as an electronic advertising aiming at communicate with the users of electronic information service (Hawkins, 1994). Also, some other scholars define online advertising as deliberate messages placed on third-party websites including search engines and directories available through Internet access (Ha, 2008); the paid and unpaid presentation and promotion of products, services, and ideas by an identified sponsor through mediated means involving mutual action between consumers and producers (Leckenby and Li, 2000).

## 2. Traits of Online Advertising

Comparing to traditional advertising, online advertising has some advantages such as time unconstrained, aiming mass market, gathering name-lists easily, and interactivity, where interactivity makes the most different with traditional advertising (Hoffman and Novak, 1997; Palmer, 1997). For these reasons, it helps corporations integrate some marketing activities through online advertising. It enables horizontal integration in three marketing channel like communication, transaction, and distribution; and vertical integration in forms of communication within marketing, which includes advertising, public relation, sales promotion, and direct marketing, etc. (Li, 1999).

Computer linked with World Wide Web, a combination of information technology products provide a useful tool, interactivity, for both sides of consumer and producer. Thus, in some degrees, scholars consider and assert this interactive function carried out from Internet as one of core characteristics (Leckenby and Li, 2000). The interactivity performs in three ways, human-machine, machine-machine, and human-message, where human-message is also called "Interactive Communication" among them. Internet as interactivity medium, it provides the possibilities of interactivity communication for the process of message sending or information exchange. And almost every information or message is presented in online advertising (Li and Leckenby, 2004).

Here in this review synthesizes several scholars' point of view into five traits of online advertising as follow (Berthon et al., 1996; Brigish, 1993; Hawkins, 1994):

A. Immediately. With Internet access, the online advertising is unconstrained by neither time nor space. Consumers can easily na-

- vigate toward the information they need at anytime, anywhere, as long as linked through Internet.
- B. Consumer Orientation. Generally, during the search for further information process, consumers have to willing to be navigated toward the information provided by advertisers in the first place. Thus, providing consumer related information, online advertising is constructed in consumer orientation perspective.
- C. Flexibility. Due to Internet is linked through globally. Whether the online advertising designs for mass market or targeting toward some specific segments, it depends on how much degree do the advertisers want to appeal for consumers. In addition, it can be converted easily and quick response to consumer than other traditional media.
- D. Costless. The online advertising is relatively easy and inexpensive to establish. Initial set-up costs are low to present minimal or nonexistent barriers to entry comparing to other forms of media. And the converted cost of advertising is much lower as well.
- E. E-commerce. Online advertising provides further information link through and is connected to e-retailers or e-distributions, where have highly potential of achieving purchase online directly.

## 3. Formats of Online Advertising

The development of online advertising is highly dependent with technique in website design. It was developed with Hypertext Markup Language (HTML) syntax in the very first place, which presented in basic and simple design with hyperlink-text and pictures.

In the early stage of research in online advertising, there were conducted subjects with some forms of online advertising, like electronic mailing, Usenet newsgroups, signature files, electronic newsletter, electronic brochures, etc. (Strangelove, 1994). Online advertising is presented in an extremely different appearance compare to nowadays, where the appearance is much more animated with multi-media accessible and advanced technique and syntax such as Flash and JavaScript. For this reason, the online advertising now is having more diversity of presenting on the website. And the more the ability of being diversity either for web page appearance or interactivity, the more it is attractive to consumers (Coyle and Thorson, 2001; Li and Bukovac, 1999):

Online advertising appears among web page through pictures, advertising context described, or embodied with some other multimedia that presenting altogether to form a web page environment (Hetsroni, 2000; Rodgers and Thorson, 2000; Zeff and Aronson, 1999). Since the first banner ad appeared on Internet in 1994, there were many diversely design forms of online advertising booming out gradually with the development of website techniques. However, there are six most popularly recognizable and representative forms lists as follow (Burns and Lutz, 2006):

A. Banner. Banner ads are "horizontal," rectangular-shaped graphical elements found at the top middle of web pages. Generally designs with pictures and text in either animated or static appearance.

- B. Floating. Floating ads use a combination of Flash technology and Dynamic Hypertext Markup Language (DHTML) to create a translucent or shaded layer over the web page and then execute an animated ad within this layer.
- C. Interstitials. Interstitials are contained within the current browser window and are automatically presented to a viewer when moving between two content pages. Once the requested page loads, the interstitial disappears.
- D. Large Rectangle. Large Rectangle ads are ads placed within the copy where an editorial proto or graphic might appear. The editorial copy either wraps around the side of the ad or appears above and below the adversity Line.
- E. Skyscrapers. Skyscrapers are similar to banners, but rather than being located at the top of a web page, these tall, thin ads are situated "vertically" along the side of a web page.
- F. Pop-up. Pop-up ads interrupt the user by opening another window over the user's browser. The user must close or minimize the window to remove it from the screen and resume for original web page.

## 4. Affection of Online Advertising Formats

In consumers aspect, online advertising is the most commonly element encountering with Internet. This is the main reason that prior studies in early research focus on general affection of online advertising and recent research focus further on the affection of the format of online advertising (Berthon et al., 1996; Burns and Lutz, 2006; Chatterjee, 2008; Ducoffe, 1999).

Advertising is basically presented in two cues, intrinsic and extrinsic. Intrinsic cues like message content in the ad; extrinsic cues are more peripheral such as color or size or format that the ad presented. Petty and Cacioppo (1986) constructed Elaboration Likelihood Model (ELM) in their study resulting consumers with relatively low-involvement tend to attracted by ad with extrinsic cues, whereas consumers with relatively high-involvement tend to influenced by intrinsic cues.

Prior research shows the attitude toward online advertising format is directly related to the format itself (Burns and Lutz, 2006). Thus the affection formed by extrinsic cues like different formats are discussed in two aspects as followed.

## A. Automatically Presented vs. Passively Presented

The ad presented automatically, or forced, like pop-up, floating, and interstitial, this kind of presenting causes different degree of interruption either in traditional advertising media or in Internet medium. Researches also show that when consumers face the kind of ad it causes negative emotions toward the ad per se, brand, and even the web site that post the ad on (Aaker and Bruzzone, 1985; Ducoffe, 1996; Greyser, 1973; Olney et al., 1991).

In the other hand, the ad presented passively like banner, large rectangle, and skyscraper, consumers have already used to this kind of presenting ad in Internet environment and proceeded avoidance unconsciously without causing any negative emotion (Edwards et al., 2002; Li and Leckenby, 2004).

#### B. Entertainment, Annoyance, and Information Perception

Burns and Lutz (2006) study shows that the attitude toward the online advertising format is directly related to attitude toward the ad. Within the study indicates the consumers can adequately and sophisticatedly differentiate the perception between the ad format and the ad resulting three factors of perceptions, entertainment, annoyance, and information.

Consumers perceive both entertainment and annoyance in all six online ad formats, while perceived information in banner, pop-up, and interstitial. This indicates that for consumers' viewpoint, the format does affect to perception that consumer held but, still, it could generate both positive emotion (entertainment) and negative emotion (annoyance) as well.

# 2.2 Promotional Message

Promotion, one of the 4P in marketing-mix strategy activities, it works maybe through ways of advertising, on-sales, public relationship, or even sales-man encountering, etc. The corporation utilizes it in order to communicate with consumers and accomplishes informing and persuading them (Singh and Dalal, 1999). As regards the corporation, through out all kinds of promotion activities it helps with building and establishing the company's organization image, declaring consumer relevance information, and increasing consumer purchase intention, etc. Among those promotion activities, advertising is the most popular and frequent use of action (Inman, McAlister, and Hoyer, 1990).

Within last section discusses the review of the forms of online advertising. Since the formats are not the only element that performs a advertisement, here in this section of literature review is going to focus on the message itself that works in advertising.

## 1. Message Framing of Promotional Message

Marketing and advertising research on message framing is based upon the prospect theory, which considers the effect of framing a decision problem in terms of gains vs. losses. Moreover, the research confirms that presentation, or framing, of messages about products or services affects consumers' purchase intentions or behavior (Kahneman and Tversky, 1979, 1984).

The definition of message framing has been operationalized either by focusing on positive product attributes (or benefits gained through product use) or by focusing on negative product attributes (or benefits lost by not using the product) (Levin and Gaeth, 1988).

The empirical research has shown that individual judgments and choices can be influenced not only by the content of communicated information but also by the way the information is presented (Puto, 1987). And effects of positive vs. negative that advertising appeals has received attention in advertising and marketing communication research under the issue of "message framing," whereas framing refers to the way objectively equivalent information is presented (Smith, 1996).

While a considerable amount of research in consumer behavior and advertising established the role of emotions in persuasion appeals (Meyers-Levy and Malaviya, 1999), the role of emotions in

response to the framing of advertising messages has been stressed even more (Homer and Yoon, 1992). Emotional appeals attempt to stir up negative or positive emotions influencing affective responses, including attitudes.

In recent research of message framing, study indicates emotional, cognitive and attitudinal responses of consumers' are significantly affected by national culture differences where the emotions generated in response to advertising stimuli varied across countries (Orth, Koenig, and Firbasova, 2007). Furthermore, research even operationalizes framing other than emotional positive or negative message as the message presented different scales of discount forms (Gendall et al., 2006). Sity Library

#### 2. Promotional Message

The message that embedded in every single advertisement can simply categorize by the objectives that advertising appeal, which is informative advertising, persuasive advertising, and reminder advertising (Armstrong and Kolter, 2005). In addition, in practical field of advertising, most advertisements can well categorize with this criteria forming the ads whereas consisting with purely products or services basic information as informative advertising, and consisting with some sort of sales promotion as persuasive advertising.

However, the reminder advertising, the third category of objectives, is embedded within either informative or persuasive advertising.

In light of the previous research in 2006, the message framing not only applied in positively or negatively of emotional aspects but also applied in the different forms of the promotional message itself (Gendall et al., 2006). Thus, the different forms of objective in advertising are considering as another kind of framing aspect.

Research shows that the coupon or discount messages sending in an advertisement that received by consumer, it significantly influences the evaluation and purchase intentions held by individual toward the specific advertised products or services. The message directly affects consumer forming consumer cognitive, attitude, and behavior (Thaler, 1985; Monroe and Chapman, 1987; Sinha and Smith, 2000).

Thus, such messages in advertising can further categorize, or framed, as "non-sales" promotional messages and "sales" promotional messages, where messages correspond with non-sales promotional as informative advertising and sales promotional as persuasive advertising (Mela et al., 1997).

Sales promotional message is the ad that consists on sale or any other kinds of discounts used for persuading consumer arouse the purchase intentions or further complete purchase behavior immediately. Non-sales promotional message in the other hand, the advertisement simply consists with the product or the brand name or some basic information in it, such as product function or quality, those without any sales message factor (Mela et al., 1997).

Previous research indicates 48%, nearly half of consumers get attention to the online advertising that consists the sales promotional message, and whereas those advertising consist non-sales promotional message received only 40% of consumers' attention during the process (Jupiter Research, 1999). For consumer, research also shows that up to 49% of consumers tested having significantly higher value perceptions or purchase intentions toward sales promotional messages comparing to other means of promotion (Sinha and Smith, 2000).

Although the sales promotional advertising receives much more consumer attention, in some point, this kind of advertising would be further causing negative feeling such as doubt or suspicious toward the products or services. And the non-sales promotional advertising is much difficult to increase the purchase intention in relative short time after the advertising explored (Campbell and Diamond, 1990). Therefore, consumer generally forms the basic evaluation toward the products or services advertised according to the promotional message embedded in it.

# 2.3 Gender

Culture V

Gender is the most clear and simple way to categorize human, man and woman. Previous research shows gender as one mainly trait of demographic is sensitive in marketing and research analysis process with its data distinguishability, accessibility, measurability, generalizability (Darley and Smith, 1995; Meyers-Levy and Sternthal, 1991). Accordingly, this particular demographic variable has been well conducted in several research fields, such as communication, social behavior, expression comprehension, working performance etc., and all are presenting and results differences within gender effect. Therefore, the

research in gender difference related gradually receives much more attention in fields (Blustain, 2000; Canary and Hause, 1993; Deaux, 1984; Eagly and Wood, 1991; Hyde and Linn, 1998).

#### 1. Gender Affection

Due to the factor of basic characteristics held by man and woman differently, gender differences are shown to be the main reason in previous research. Generally, different genders hold different perspectives, viewpoints, positions, attitudes, and even emotions as well (Dittmar, 1991; Meyers-Levy, 1989; Rodgers and Harris, 2003). Research shows significant difference especially in research of attitude toward advertising (Meyers-Levy, 1989; O'Donohoe, 1995; Schlosser, Shavitt, and Kanfer, 1999; Wolin, 2003).

Consumer will be affected by Internal Flexibility, Expectation, and Involvement during the process of message sending while receiving the advertising, which will further impact to consumer's cognition, attitude, and behavior (Sushil, 2000). Among the differences consumer holds undergoing the process, it is consumer gender that makes the differences (Meyers-Levy, 1989; Phillip and Suri, 2004; Wolin, 2003).

First, internal flexibility is an assessment of three criteria of 1) whether does the information provide sufficiently and comprehensively options, 2) whether could the options choose liberally, and 3) how diverse does the change make. Research shows that comparing to man consumer, woman require much more diversely information or suggestion for internal flexibility proceeding (Sushil, 2000).

Second, expectation is how much importance of consumer hold toward the advertised information in price, quality, or service that addressed (Beisel and Clow, 1995). Female consumer interests in detail thoroughly and considers price particularly; whereas male consumer hold much more attentions to function or quality aspects (Brunel and Nelson, 2003; Darley and Smith, 1995; Suri and Monroe, 2003).

Third, involvement will differ from specific products or services type forming different preferences, where gender causes the difference. Generally, consumer involvement and their attitude toward the advertising have positive relationship (Edell and Keller, 1989; Palanisamy and Wong, 2003).

#### 2. Previous Research Results

Research shows that there are cognition differentiations between two genders in advertising message proceeding (Wolin, 2003). Except for the characteristics that differ, another main reason is the usage of Internet that male and female users hold (Herring, 2000; Kehoe, Pitkow, and Morton, 1997). Generally, the male users take the major share of popularity in spite of the female users constantly increased in recent years. Still, research indicated that female users are more preserved against to innovated or new technologies or functions being too complex than male one (Garbarino and Strahilevitz, 2004; Herring, 2000; Kehoe et al., 1997; Pastore, 2001). This makes female consumer feel more intense, risky, or trustless in Internet environments.

According to a research for Internet user in United State, results indicate some differences between male and female user behavior. The main purposes for male user are Internet for entertaining or relaxing whereas female user, in the other hand, tends to Internet for enriching communication in personal relationship or assisting for learning (Weiser, 2000). Which is in sync with some scholars' research resulting male achieves entertainments and leisure through website surfing, and female prolongs the interactions within personal relationship through e-mail sending (Jackson, Ervin, Gardner, and Schmitt, 2001).

When it comes to e-commerce, gender differs the research results by indicating different emotional reactions toward Internet. Results show that because female tends to suspicious at virtual events on Internet than male does, and cannot have much mental satisfaction in online shopping, where physical channels works (Rodgers and Harris, 2003; Wells an Chen, 1999). Coherent with the studies that male does spend much more time at online shopping than female does (Kehoe et al., 1997; Shavitt, Lowrey, and Haefner, 1998).

Either advertising in traditional media or on Internet, there are gender differences out from advertising message sending and receiving (Meyers-Levy, 1989; O'Donohoe, 1995; Phillip and Suri, 2004; Schlosser et al., 1999). Female consumer prefers receiving discounts, on sales, and so forth of sales promotion message in advertising than male consumer, which a bit more focus on messages to function or quality of product/ service in advertising (Herring, 1993; Suri and Monroe, 2003; Weiser, 2000; Wolin and Korgaon-

kar, 2003). Moreover, male consumer has much more deeper memories toward "undurable" goods' advertising and has much higher purchase intention than female one, because of the risk-averse that most female consumer holds onto (Garbarino and Strahilevitz, 2004)

Above all reviews toward gender in this section, knows that most cognitions, attitudes, and even intentions that consumer hold is affected by gender differences in general. Thus, gender variable is conducted as moderator variable in this research.

### 2.4 Intrusiveness

In research of advertising effectiveness, studies have thoroughly discussed the pattern or path consumers held encountering to advertising they faced. This forms a sequence steps from attention, understanding, memorizing, and accepting to acknowledge toward messages embedded within advertisements. This further generates interests and evaluations, develops attitudes, and then finally rouses to purchase intention or purchase behavior (Lavidge and Steiner, 1961). Where the concept of advertising effectiveness is also called Hierarchy of Effects consists of three phases of cognitive, attitude, and conative (behavior) (Lavidge and Steiner, 1961; Olney et al., 1991).

However, consumers often complain about the advertisements for interruption, distracting, or even intrusive in practical, e.g. the advertising during television programs, radio programs, or even the billboards that sets in neighbor of sightseeing scenery (Krugma, 1983; Vespe, 1997). Which those complain turn out to be negative effected toward the advertisements, and is negatively related to advertising effective-

ness (Aaker and Bruzzone, 1985; Chatterjee, 2008; Ducoffe, 1996; Greyser, 1973).

Recent researches show that these negative effects also stand for not only in traditional advertising, but online advertising as well (Chatterjee, 2008; Edwards et al., 2002; Gao et al., 2004; Ha, 1996). Moreover, Li et al. (2002) forms an Intrusiveness Model consisting three hierarchy phases that coherent with advertising effective of hierarchy of effect, intrusive (cognitive), irritation (attitude), and avoidance (behavior).

#### 1. Intrusiveness

The nature of advertising consumers face is getting their attention. That is the reason of resulting many negative complains in practical for interruption from the execution of advertisements, trying to receive attention of the ad from consumers. Either on the basis of content, execution, or placement, these will first be evaluated on the basis of the degree to which consumers interrupt the goals of viewers, or their perceived intrusiveness (Li et al., 2002).

In definition, intrusiveness is "the degree to which advertisements in a media vehicle interrupts the flow of an editorial unit" (Ha, 1996). Intrusiveness is a perception or psychological consequence that occurs when an audience's cognitive processes are interrupted. Thus, intrusiveness is the first consumers' cognition forming after exposures to a particular advertisement.

Sometimes advertisement is seen as noise. Previous research conceptualizing ads as noise forms three possibility communication-related problems (Speck and Elliott, 1997a). First, ads can

block the access to programming. Second, ads can interrupt the use of programming or content and therefore be distractions from the mediated environment. Third, ads may completely disrupt the interaction with the desired content. In that consumers view it as affect to viewers' goals, and it is likely to affect the degree to which the viewer perceives ads as intrusive.

Intrusiveness should be considered primarily a cognitive process in which consumers may recognize ads as disturbing. It describes the mechanism by which ads evoke negative emotional reactions, such as irritation or annoyance.

#### 2. Irritation

In Li et al. (2002) study, irritation is the second phase in the model of intrusiveness. An irritating ad is often one that is "provoking, causing displeasure and momentary impatience." Where Irritation is response to ads has been defined as more negative than dislike (Aaker and Bruzone, 1985).

Because of ad irritation can be broadly classified into three categories: ad content, execution, and placement. First, when consumers perceive ad as annoying if the content is untruthful, exaggerated, confusing, or insults to them, that ad is irritating (Bauer and Greyser, 1968). Second, ads are deemed irritating to the degree that they are poorly executed. Poorly executed ads are judged to be irritating if they are too loud, too long, or too large (Aaker and Bruzzone, 1985; Bauer and Greyer, 1968). Third, Consumers are likely to get irritated when there are too many ads or when the same ad appears too frequently (Bauer and Greyser, 1968). When consum-

ers are irritated by advertisements, they are like to avoid them afterward.

#### 3. Avoidance

In traditional media advertisements, consumers' avoidance has been described as zipping, zapping, flipping, and grazing, etc. Regardless of the different names used to describe the reactions of consumers to irritating ads, each of the many studies has examined the impact of viewer control over ad exposure during programming and concluded that when consumers are given a means to avoid ads, many of them just simply tend to do that (Li et al., 2002).

Previous research shows the most avoidance behavior regarding television commercials occurs during the first ad presented to consumers in the first sequence (Abernethy, 1991). Moreover, consumers are likely to avoid the ad upon recognition of its occurrence (Cronin and Menelly, 1992).

Avoidance is further identified as cognitive, behavior, and mechanical as avoidance (Speck and Elliott, 1997b). Cognitive avoidance consists of the tuning ads out and shifting focus. Behavioral avoidance is operationalized as leaving the room or even closing it. Mechanical avoidance focused on the use of a remote control to change the channel or utilized of pop-up blocker devise.

Figure 2-1 displays the basic relationship among the three aspects of intrusiveness model.

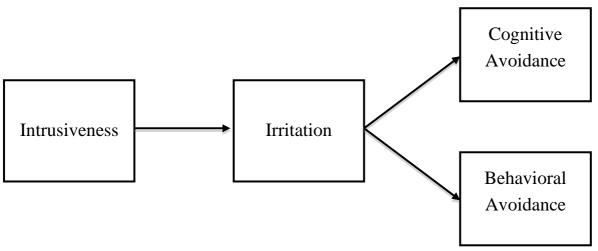


Figure 2-1 Intrusiveness Model

Source: H. Li, S. M. Edwards, and J. H. Lee (2002). Measuring the intrusiveness of advertisements: Scale development and validation. *Journal of Advertising*, 31(2),

37-47.

# Chapter 3 Research Methodology

In this chapter, there are separated into seven sections such as Research Framework, Hypotheses, Research Design, Sample and Procedure, Measures, Questionnaire, and Data Analyses. Specify as follow.

## 3.1 Research Framework

The purpose of this research is trying to identify the intrusiveness that consumer possessed after exposed to particular online advertising, whether caused by the online advertising format or the promotional message. Further, identifies if there are any gender moderate effect in this research. As Figure 3-1 shows followed.

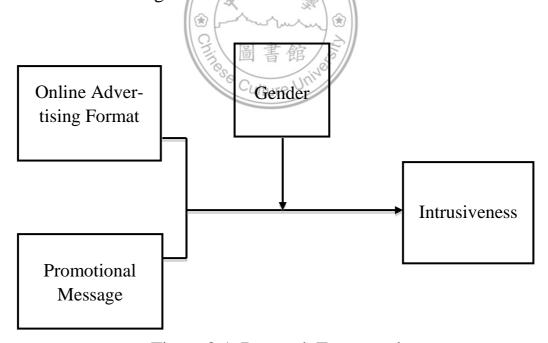


Figure 3-1 Research Framework

# 3.2 Hypothesis

#### 1. The Intrusiveness Effect of Online Advertising Formats

In traditional advertising channels, whatever forms of advertising that presented cause interruption toward consumers. Interruption is the nature of the advertisement, which is designed as shifting consumers' origin attention to the advertisement itself. In such way, the advertising is likely causing negative emotion and further forming avoidance behavior (Krugman, 1983; Vespe, 1997). In light of the perspective of Psychological Reactance theory in social psychology, people tend to feel more intenseness and pressure when binding to surroundings which beyond their self-control (Brehm, 1966; Brehm and Brehm, 1981).

There are several different formats of online advertising, which categorized as automatically presented or passively presented (Berthon et al., 1996; Chatterjee, 2008; Ducoffe, 1996). The automatically presented stands pop-up ads, whereas the passively presented stands banner ads. When exposing to pop-up ads, consumer tend to feel intrusive due to this online advertising format generates self-control problem and cause the intrusiveness effect during webpage browsing behavior (Chatterjee, 2008; Edwards et al., 2002; Gao et al., 2004). Therefore, infers hypothesis as follow:

H1: Pop-up format is significantly intrusiveness toward consumers comparing to banner format.

#### 2. The Intrusiveness Effect of Promotional Messages

Promotional messages are categorized into sales and non-sales promotional message, where sales promotional advertisement is more attractive to consumers comparing to non-sales promotional advertisement (Mela et al., 1997; Shinha and Smith, 2000). In addition, consumers tend to feel negative emotion toward sales promotional advertisement when the products or services that advertised is relatively high price-involvement (Campbell and Diamond, 1990; Gendal et al., 2006; Johar and Sirgy, 1991). Therefore, infers hypothesis as follow:

H2: Sales promotional advertisement is significantly intrusiveness toward consumers comparing to non-sales promotional advertisement.

### 3. The Intrusiveness Effect of Interaction in Formats and Messages

In reality, every online advertisement is combined both elements of format and message. Advertisement is presented as either informative or persuasive messages matching with different formats toward consumers. Thus, the online advertising formats and promotional messages are highly connected.

As result, the combination higher intrusiveness format with higher intrusiveness promotional message should cause in positively relationship of higher intrusiveness toward consumer. Therefore, infers hypothesis as follow:

- A. Based on The Same Format Condition
- H3a: Under the same pop-up format condition, the ad with sales promotional message is significantly higher intrusiveness than non-sales one.
- H3b: Under the same banner format condition, the ad with sales promotional message is significantly higher intrusiveness than non-sales one.
- B. Based on The Same Promotional Message Condition
- H3c: Under the same sales promotional message condition, the ad presented with pop-up format is significantly higher intrusiveness than banner one.
- H3d: Under the same non-sales promotional message condition, the ad presented with pop-up format is significantly higher intrusiveness than banner one.
- C. Based on No Common Condition
- H3e: The ad presented as pop-up format with sales promotional message is significantly higher intrusiveness than presented as banner with non-sales one.
- H3f: The ad presented as pop-up format with non-sales promotional message is significantly higher intrusiveness than presented as banner with sales one.
- 4. The Intrusiveness Effect of Online Advertising Formats and Gender Previous researches indicate female consumers tend to attract by more peripheral cues such as exposure frequency, vividness, or animation of ad to establish memories or arouse purchase intentions comparing to male consumers (Kempf, Palan, and Laczniak, 1997;

Meyers-Levy and Stemthal, 1991). Thus, female consumers tend to attract or accept to pop-up ads more than male consumers do. For male consumers, the pop-up ads consider higher intrusiveness effect. Therefore, infers hypothesis as follow:

H4: The intrusiveness effect of pop-up advertisement for male consumers is significantly higher than female consumers.

### 5. The Intrusiveness Effect of Promotional Messages and Gender

Consumer will be affected by internal flexibility, expectation, and involvement during the process of message sending while receiving the advertising, which will further impact to consumer's cognition, attitude, and behavior (Sushil, 2000). Female consumer interests in detail thoroughly and considers price particularly; whereas male consumer hold much more attentions to function or quality aspects (Brunel and Nelson, 2003; Darley and Smith, 1995; Suri and Monroe, 2003). Therefore, infers hypothesis as follow:

H5: The intrusiveness effect of sales promotional advertisement for male consumers is significantly higher than female consumers.

# 6. The Intrusiveness Effect of Interaction in Formats, Messages and Gender

According to the above hypotheses, pop-up format has more intrusiveness than banner format. And sales promotional message has more intrusiveness than non-sales promotional message. Also, male consumers consider sale promotional message more intrusiveness than female consumers. Therefore, infers hypothesis as follow:

#### A. Based on The Same Format Condition

H6a: Under the same pop-up format condition, when male consumers face the ad with sales promotional message, it is significantly higher intrusiveness than female consumers; contrary to the ad with non-sales one, it is less intrusiveness than female consumers.

H6b: Under the same banner format condition, when male consumers face the ad with sales promotional message, it is significantly higher intrusiveness than female consumers; contrary to the ad with non-sales one, it is less intrusiveness than female consumers.

# B. Based on The Same Promotional Message Condition

H6c: Under the same sales promotional message condition, when male consumers face the ad presented with pop-up format, it is significantly higher intrusiveness than female consumers; contrary to the ad with the banner one, it is less intrusiveness than female consumers.

H6d: Under the same non-sales promotional message condition, when male consumers face the ad presented with pop-up format, it is significantly higher intrusiveness than female consumers; contrary to the ad with the banner one, it is less intrusiveness than female consumers.

#### C. Based on No Common Condition

H6e: When male consumers face the ad presented as pop-up format with sales promotional message, it is significantly higher intrusiveness than female consumers; contrary to the ad with

the presented as banner with non-sales one, it is less intrusiveness than female consumers.

H6f: When male consumers face the ad presented as pop-up format with non-sales promotional message, it is significantly higher intrusiveness than female consumers; contrary to the ad with the presented as banner with sales one, it is less intrusiveness than female consumers.

# 3.3 Research Design

Within this section declares for research design relevant issues aiming at the research purposes and problems of this research. In order to achieving the standards of systematic and objective procedure, this research is conducted throughout Experimental Design, and Controlled Factor will be specified as well.

### 1. Experimental Design

Through the method of laboratory experimental design, this research utilizes and forms into four web pages having four online advertisements specifically. Generating two between-subjects factors (two ad formats; banner and pop-up and two ad messages; sales promotion and non-sales promotion) consist of four sets of factorial design controlled the same surfer scenario throughout this research. As Table 3-1.

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SetOnline Ad FormatsPromotional messages1BannerSales2BannerNon-Sales3Pop-upSales4Pop-upNon-sales

Table 3-1 Factorial Design

#### 2. Controlled Factor

As mention in last part above, there are some factors that will impact upon the procedure within exogenously. Thus, this research is conducted in a lab experiment design controlled by scenario settings, which may hold constant for most relevance exogenous.

### A. For Independent Variables

- a. Format Design. Throughout the designing and forming of the ad, both for banner and pop-op present only in basic appearance, in order to achieves the goal of designing banner and pop-up more generally and objectively. Thus, the design is made up no animated effect such as Flash technique or different ad sizes. Previous researches show vivid animation would have additional effectiveness affect to consumers (Chatterjee, 2008; Coyle and Thorson, 2001; Li and Bukovac, 1999).
- b. Sales Promotion. In deciding how much the ad is been set as sales promotion, it is based on the market pricing level that practitioners use in reality. This reduces the impact of too much or too less of price-off that affects the attitude when participants of this research face.

#### B. For Moderator Variables

- a. Involvement. Research indicates that the degree of involvement definitely influent to the attitude of consumer held toward the ad or the brand (MacInnis, Moorman, and Jaworski, 1991). Moreover, there are some gender different product categories to consumer, which causes the involvement degree differently for the results. Thereby, the advertisements are based on same tourism product of each, where tourism product is popular to both genders and with a relatively high price payment that makes it become high involvement in average level.
- b. Preference, Time constrain, and Economic Condition. The route or destination of the particular tourism product is consumer preferred differently. Thus, the particular destination is chosen based upon the statistical report releases in 2009 from Tourism Bureau, Taiwan. Choosing which destination is popular to the consumers the most, and reduces the influence of preference. Also, in scenario settings, the participants are told to be no time or budget limitation, and proceeds under willing, affordable, and without initial ideas for the destination in the first place.

# 3.4 Sample and Procedure

### 1. Sample

This research is to achieve the purposes of understanding whether the consumers affect in intrusiveness when face toward the particular online advertising. Therefore, the sample used to test through questionnaire is consumers that are users who familiar with and acquainted to Internet environment. Within the research, there are a total of four kinds of online advertisements that forms four experimental sets that required receiving at least 30 effectively sample participants in each. However, due to the other purpose of this research discussing consumer genders as moderating effect especially, each experimental set is further expecting to receive 30 participants in both genders, which sum up to receive at least 240 effectively questionnaire samples totally.

#### 2. Procedure

The experimental design method used in this research is based upon the scenario controlled; web page designed with specific online advertising performed toward participants; and proceeds under a constructive questionnaire forming with a series of relevance questions as collecting of quantitative data (Blodgett, Wakefield, and Barnes, 1995; Goodwin and Ross, 1992; Megehee, 1994). The questionnaire is conducted in both online survey web site (my3q.com) and downtown area in reality from July to September in 2009. Respondents are randomly selected through Internet or on streets, and shall reach to the randomly sampling in this research.

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### 3.5 Measures

According to the literature review in last chapter, this section is meant to clarify the definitions and measures pursuing for the research problem in questionnaire design. Each of relevant variables such as online advertising format, promotional message, and intrusiveness, is specified ad follow.

### 1. Online Advertising Format

The variable manipulation definition for this research is according to Burns and Lutz's research in 2006. There're mainly six the most recognizable online advertising formats for online surfers, which are banner, floating, interstitial, large rectangle, skyscraper, and pop-up. Among the six formats, there are two formats, banner and pop-up, presenting in extremely different appearances that perceived by consumers, which makes these two bipolar formats to be more representative for this research (Chatterjee, 2008; Edwards et al., 2002; Gao et al., 2004; Ha, 2008). Thereby, the online advertising formats are designed into these two formats in this research.

- A. Banner. Banner ads are "horizontal," rectangular-shaped graphical elements found at the top middle of web pages. Generally designs with pictures and text in either animated or static appearance.
- B. Pop-up. Pop-up ads interrupt the user by opening another window over the user's browser. The user must close or minimize the window to remove it from the screen and resume for original web page.

### 2. Promotional Message

According to scholar's research, promotional message is divided into two categories, sales promotional message and non-sales promotional message. Based on this, the variable's manipulation definition specifies as follow.

- A. Sales Promotional Message. The advertisement has any information forms of sales, discount, and so forth, for the particular message that embedded within, called sales promotional message.
- B. Non-sales Promotional Message. The advertisement has discloses information of only product name, brand name, functional benefit, and so forth, for the particular message that embedded within, called non-sales promotional message.

#### 3. Intrusiveness

Regarding to the intrusiveness model proposed in previous research, there exists a series of process undergoing through receiving the advertising to evoke actual behavior when consumers face toward every forms of advertising, e.g. online advertising. The hierarchy model presented in the research indicates that whenever consumer encounters with an advertisement, it generates the first impression as cognition, either from the ad per se or the way it appears. If the ad is intrusive to consumer, mostly it becomes irritated to consumer as attitude. As long as forming irritation attitude toward the ad, it further results at avoidance behaviors to zap/ zip or even close the ad afterward (Li et al., 2002). According that, there are some manipulation definitions and measures is specified as follow.

#### A. Intrusiveness

Li et al. (2002) defines intrusiveness, as experiencing anything or anyone that happened to impact upon the current focus on things to hand, and impacts like interrupt, distracts, i.e. intru-

siveness. This research uses seven-point Likert Scale of seven adjective words to describe and measure for intrusiveness with responses categories from 'strongly agree' to 'strongly disagree.' Words are distracting, disturbing, forced, interfering, intrusive, invasive, and obtrusive.

#### B. Irritation

Wells, Leavitt, and McConville (1971) define irritation, as the degree to which the rater dislikes what he/ she have seen. The study uses scale of five adjective words to describe and measure for irritation with responses categories from 'extremely well' to 'not well at all.' In order to be consistent in format with the intrusiveness items and used scale anchored from 'strongly agree' to 'strongly disagree.' Words are terrible, stupid, ridiculous, irritating, and phony.

#### C. Avoidance

Synthesizing S. S. Brehm and J. W. Brehm (1981), and Chatterjee (2008) researches, consumer's avoidance toward the advertising can be divided into two behavioral categories as specified follow.

### a. Cognitive Avoidance.

Chatterjee (2008) defines cognitive avoidance as a subconscious and automatic precedes process, which can be only screening through and without any conscious reaction or actual behavior needed. In Li et al. (2002) research measures cognitive ad avoidance, details item spent viewing the ad in four levels: "viewed almost nothing," "viewed less than half of the ad," "viewed more than half of the ad," and "viewed from the beginning to the end of the ad." The lower among of viewing indicated a higher level of cognitive ad avoidance.

#### b. Behavioral Avoidance.

S. S. Brehm and J. W. Brehm (1981) define behavioral avoidance as under conscious decision performs avoidance toward the ad. Li et al. (2008) measure behavioral ad avoidance with observing the participants' behaviors in response to the ad. Viewers' actions were coded as "closed the ad before it was over," "made the ad into background before it was over," "moved the ad around but left it on," and "did not touch the ad before it was over." These four categories of interaction indicated different levels of behavioral ad avoidance, with "closed the ad before it was over" as the greatest act of avoidance.

In order to adopt the measurements into this research, the respondents are asked to chose one of the most likely intentions to react that correspond to the items provided instead of using observation of participants. Still, due to the attribution of banner format, that consumer cannot be responded to behavioral avoidance. However, both banner and pop-up formats are capable of measuring in cognition avoidance. Thus, this research measures avoidance in cognition avoidance measurement merely.

# 3.6 Questionnaire

The questionnaire is designed into three main parts. Specify as follow.

- 1. Part A. Within this particular part, this research mean to identify the respondents whom whether are qualified enough to be effective of their responds data. By asking two questions that could define respondents themselves as familiar and acquainting to the Internet environment and be able to distinct between banner and pop-up format.
- 2. Part B. In order to understand the respondents as consumers' intrusiveness effect after exposes to a specific online advertising, there are total four versions of web page embedded an online advertising each that is randomly assigning to respondents. Respondents are conducted in questionnaire after viewing a specific version of web page. Every respondent is facing one particular web page version once and only. The scale of this part shows in Table 3-2.
- 3. Part C. Collect basic demographic statistics from respondents' consistent data in this research, such as gender, marital status, age, and education.

Table 3-2 Intrusiveness Scales

				Scales			
Describe	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
The ad feels distracting.	1	2	3	4	5	6	7
The ad feels disturbing.	1	2	3	4	5	6	7
The ad feels forced	1	2	3	4	5	6	7
The ad feels interfering.	1	2	3	4	5	6	7
The ad feels intrusive.	1	2	3	4	5	6	7
The ad feels invasive.	1	2	3	4	5	6	7
The ad feels obtrusive.	1	2	3	4	5	6	7
The ad feels terrible.	1	2	ersity Lib	4	5	6	7
The ad feels stupid.	1	2 50	文3化人	24 4	5	6	7
The ad feels ridiculous.	1	2	~~3m~	4	5	6	7
The ad feels irritating.	1	27	圖書館	4	5	6	7
The ad feels phony.	1	2	Culture V	4	5	6	7

In your actual browsing activities, what would you react when you've been first exposed toward the ad?

Viewed almost nothing	Viewed less than half of the ad
1	2
Viewed more than half of the ad	Viewed from the beginning to the end of the ad
3	4

# 3.7 Data Analyses

The data collects from the questionnaires is analyzing through the statistical analyses software, SPSS 12.0.

### 1. Descriptive Statistics

Understanding the situations of the relevance conditions within the respond data of each participant in this research thereby uses quantitative analyses data such as mean, standard deviation, and percentile, etc. for primary data screens.

### 2. Reliability Analyses

Due to the laboratory experimental design method used, the questionnaire scales must further test with reliability and validity. According to the literature-constructed scales, this should have well validities (Li et al., 2002).

Meanwhile, the reliability test is tested through Cronbach's  $\alpha$  coefficient measures. This is measurement of accuracy, representative, stability, and internal consistency for the items within the questionnaire. High reliability when  $\alpha$ 's coefficient is above 0.7, and low reliability when  $\alpha$ 's coefficient is below 0.3.

### 3. Independent Sample Test

This study T-test or Chi-Squares-test (F-test) to verify the abilities of the data that sampling from the population, which are further run into variance analysis system. Either the independency test or homogeneousness test are discussed.

### 4. Analysis of Variances

This study use either One-way ANOVA test or Two-way ANOVA test to verify the difference among the experiment sets resulting to different of intrusiveness effects. Due to the intrusiveness effect have three aspects that are also collects while respondents fill out the questionnaire. Thereby, MONOVA test is been used throughout the data analysis process.

### 5. Correlation Analysis

Use Pearson Correlation Analysis to discuss the relationship among all three aspects of intrusiveness effects. In this part, it simply utilizes as double check for the results to cohere with previous li-

terature results.

# Chapter 4 Research Results

In this chapter, there are specified mainly as three parts. First, discloses the components or attributes of all collected data. Second, verifies the validity and reliability of the questionnaire items used. Third, utilizes Independent Sample Test, One-Way, Two-Way ANOVA Test, MNOVA Test, and Correlation Test to discuss the hypotheses listed in Chapter 3.

# 4.1 Description of Data

This research is conducted as 2×2 experimental design with four questionnaires. Each questionnaire forms as different match between online advertising formats and different promotional messages. These four questionnaires are conducted during July to September in 2009. Collecting total of 320 samples, where 287 samples are effective having the effectively response rate of 90%.

Among all 287 effective samples, there are 135 male (47%) and 152 female (53%) respondents. Table 4-1, presents the detailed data components.

Table 4-1 Gender Component of Data

Version	Gender	Number (%)	Sum (%)
NB <sup>b</sup>	Male	39	72 (25.1)
NB	Female	33	72 (25.1)
NIDC	Male	25	(0 (24.0)
$NP^{c}$	Female	44	69 (24.0)

(continued)

Table 4-1(continued)

Version	Gender Number (%)		Sum (%)	
$SB^d$	Male	39	70 (25.1)	
SB	Female	33	72 (25.1)	
$\mathrm{SP}^\mathrm{e}$	Male	32	74 (25.9)	
SP	Female	42	74 (25.8)	
T-4-1	Male	135 (47)	207 (100)	
Total	Female	152 (53)	287 (100)	

Note: b. Non-sales promotional ad presented as Banner.

- c. Non-sales promotional ad presented as Pop-up.
- d. Sales promotional ad presented as Banner.
- e. Sales promotional ad presented as Pop-up.

Within the age distribution of effective data, there are 156 (54.4%) of respondents in 21-30 year-old level, and 96 (33.4%) of respondents in under and include 20 year-old level. Detailed of age component is presented in Table 4-2.

Table 4-2 Age Component of Data

Age	Number	%
Under 20 <sup>f</sup>	96	33.4
21-30	156	34.4
31-40	28	9.8
41-50	5	1.7
Above 51 <sup>g</sup>	2	0.6
Total	287	100

Note: f. Under and include 20.

g. Above and include 51.

Among all effective samples, there are 232 (80.8%) of respondents have or in process of bachelor degree, and 47 (16.4%) of them have or in process of master degree. Specify as Table 4-3.

Table 4-3 Education Component of Data

Education	Number	%
High School	8	2.8
Bachelor	232	80.8
Above Master	47	16.4
Total	287	100

# 4.2 Reliability

Due to this questionnaire scales must further test with reliability and validity. According to the literature-constructed scales, this should have well validities (Li et al., 2002).

The reliability test is tested through Cronbach's  $\alpha$  coefficient measures. This is measurement of accuracy, representative, stability, and internal consistency for the items within the questionnaire. High reliability when  $\alpha$ 's coefficient is above 0.7, and low reliability when  $\alpha$ 's coefficient is below 0.3. As result, the reliability coefficient of this questionnaire scales are specified as Table 4-4.

Table 4-4 Reliability Test

Variable	Intrusiveness	Irritation
Cronbach α	0.937	0.924

# 4.3 Intrusiveness of Online Advertising Format

### 1. Pop-up Format vs. Banner Format

According to Table 4-5, all three aspects of intrusiveness effect's homogeneity of variance test are insignificant (p=0.693, 0.182, 0.740 > 0.05). Therefore, these assume and verify the both pop-up and banner respondents' populations mean variances are equal. Thus, each p-value of intrusiveness effect is significantly (p=0.000, 0.016, 0.005 < 0.05) different from banner and pop-up formats.

Table 4-5 Independent Sample T-test of Pop-up and Banner

	Levene's	Test for	x 32		
Variable	Equality of	Variances		df.	Sig.
	F \(\)	Sig. 业	語意		
Intrusiveness	0.156	0.693	-4,545	285	0.000***
Irritation	1.792	0.182	-2.412	285	0.016*
Avoidance	0.110	0.740	-2.808	285	0.005**

Note: \*\*\* Significant Level, p<0.001.

Through the Table 4-6 followed, base on the statistics results. Here confirms that pop-up format is significantly higher intrusiveness effect than banner format in all three aspects of intrusiveness effect. Thereby, the H1 is statistically supported.

<sup>\*\*</sup> Significant Level, p<0.01.

<sup>\*</sup> Significant Level, p<0.05.

Table 4-6 Mean Value of Pop-up and Banner

Variable	Format	Number	Mean	Std.
	Banner	144	3.800	1.247
Intrusiveness	Pop-up	143	4.485	1.308
Ŧ	Banner	144	3.362	1.273
Irritation	Pop-up	143	3.717	1.219
	Banner	144	2.82	0.686
Avoidance	Pop-up	143	3.06	0.780

### 2. Gender Effect of Pop-up Format vs. Banner Format

Using formats and genders as two factors of ANOVA test to discuss whether there are gender effects that moderates the intrusiveness effect toward online advertising formats. Table 4-7 shows that there is no sufficient evidence (p=0.769, 0.439, 0672 > 0.05) indicates the significant interaction effect within formats and genders. Thereby, H4 is statistically insufficient to support.

Table 4-7 Two-way ANOVA of Formats and Genders

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	0.142	0.142	1	0.087	0.769
Irritation	0.927	0.927	1	0.600	0.439
Avoidance	0.096	0.096	1	0.179	0.672

Note: ANOVA source: Format (banner; pop-up) × Gender (male; female.)

# 4.4 Intrusiveness of Promotional Message

### 1. Non-Sales vs. Sales Promotional Message

According to Table 4-8 except for avoidance aspect's homogeneity of variance test is significant (F=10.663, p=0.001 < 0.05). Both intrusiveness and irritation are further tested under having homogeneity of population variance in equal condition, whereas avoidance is calculated under having homogeneity of population variance in unequal condition. Moreover, each aspects of intrusiveness effect's p-value are insignificantly (p=0.317, 0.434, 0.099 > 0.05) different from non-sales and sales promotional messages.

Table 4-8 Independent Sample T-test of Non-sales and Sales

Jersity Lib

Variable		Test for Variances	が 全 記 デ	df.	Sig.
	F	Sig.	Univer		
Intrusiveness	1.953	0.163	1.002	285	0.317
Irritation	0.181	0.671	0.784	285	0.434
Avoidance	10.663	0.001**	-1.654	285	0.099

Note: \*\* Significant Level, p<0.01.

Thereby, the H2 is statistically insufficient to support. Table 4-9, it shows the basic statistic figures listed as followed. However, the figures still indicate that respondents tend to recognize neutral intrusiveness, to feel disagree of irritation, and to behave as viewed less than half of the ad when it comes to face the online advertisements

in general. But, there is no significant evidence showing differences between non-sales and sales promotional messages.

Table 4-9 Intrusiveness Effect's Mean Value of Non-sales and Sales

Variable	Message	Number	Mean	Std.
	Non-Sales	141	4.220	1.387
Intrusiveness	Sales	146	4.064	1.254
T ** **	Non-Sales	141	3.598	1.276
Irritation	Sales	146	3.482	1.238
1	Non-Sales	141	3.01	0.676
Avoidance	Sales	146	2.87	0.799

### 2. Gender Effect of Non-Sales vs. Sales Promotional Message

Using messages and genders as two factors of ANOVA test to discuss whether there are gender effects that moderates the intrusiveness effect toward promotional messages. The Table 4-10 shows that except for the aspect of avoidance, there are sufficient evidences for intrusiveness and irritation (p=0.017\*, 0.017\* < 0.05) indicates the significant interaction effect within messages and genders. Thereby, H5 is partially and statistically supported.

Table 4-10 Two-way ANOVA of Messages and Genders

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	9.974	9.974	1	5.788	0.017*
Irritation	8.877	8.877	1	5.720	0.017*
Avoidance	1.380	1.380	1	2.543	0.112

Note: ANOVA source: Message (Non-sales; Sales) × Gender (Male; Female)

Therefore, the Table 4-11 shows interaction effect of the different means corresponding to different genders. And Figure 4-1 and Figure 4-2 draws out the concept of interaction in both intrusiveness and irritation.

Table 4-11 Mean Value of Messages and Genders

Variable	Message	Gender	Mean
		Male	4.016
	Non-Sales	Female	4.392
		Total	4.221
		Male	4.256
Intrusiveness	Sales	Female	3.884
		Total	4.065
	Total	Male	4.142
		Female	4.141
		Total	4.141
		Male	3.509
Irritation	Non-Sales	Female	3.673
		Total	3.599

(continued)

<sup>\*</sup> Significant Level, p<0.05

TT 11 4 11	/ 1\
Table 4-110	(continued)
1 auto 4-1 1 v	(COMMINGCA)

Variable	Message	Gender	Mean
		Male	3761
	Sales	Female	3.219
Irritation		Total	3.482
IIIItation		Male	3.642
	Total	Female	3.449
		Total	3.539

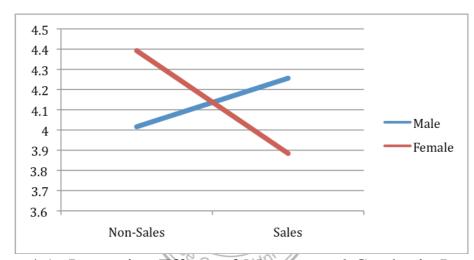


Figure 4-1 Interaction Effects of Message and Gender in Intrusiveness

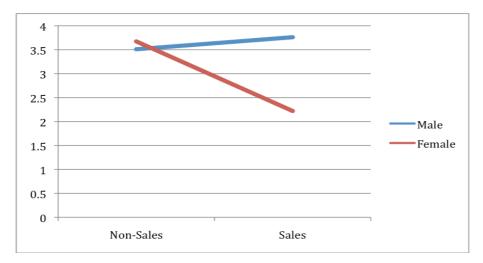


Figure 4-2 Interaction Effects of Message and Gender in Irritation

# 4.5 Intrusiveness of Format and Message Interaction

### 1. Interaction of Formats and Messages

In reality, whatever online advertising consumer encounters, it must combine both format to present and messages to send out. This study intends to discuss the interactions within the possibilities of all four kinds of combinations, using MONOVA test to find out the differences among them. Table 4-12 is the homogeneity of variance test among the four versions of online advertisements embedded in different questionnaires. Except for the avoidance aspect, the results are insignificant indicating the condition of homogeneity (p=0.946, 0.349 > 0.05) for further variances analysis procedures.

Table 4-12 Levene's Test of Equality of Error Variances

	F Chil	圖畫館	df2	Sig.
Intrusiveness	0.124	Cultu3e University	283	0.946
Irritation	1.101	3	283	0.349
Avoidance	4.129	3	283	0.007**

Note: MONOVA design: Intercept + Version.

Table 4-13 is the variance analysis for four versions of online advertisements composed by two different formats and two different promotional messages. The result indicates that every of each experiment set is significantly having different variances (p=0.000\*\*\*, 0.034\*, 0.010\* < 0.05) among one another in three aspects of intrusiveness effects.

<sup>\*\*</sup> Significant Level p<0.01.

Table 4-13 MONOVA Test for Formats and Messages

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	44.891	14.964	3	9.314	0.000***
Irritation	13.614	4.538	3	2.931	0.034*
Avoidance	6.146	2.049	3	3.818	0.010*

Note: Experiment Set: NB, NP, SB, and SP.

The above table results that all four experiment sets have significant different responses in intrusiveness effects among them. In the next few pages of Table 4-14 shows the multiple comparisons of four experiment sets. Here, the study utilizes the LSD multiple comparison method within the process.

Table 4-14 Multiple Comparisons of Formats and Messages

Variable	Exper	iment Set	Comparison Set	LSD Sig.
			NP	0.000***
Intrusiveness	1	NB	SB	0.378
			SP	0.013*

(continued)

<sup>\*\*\*</sup> Significant Level, p<0.001.

<sup>\*</sup> Significant Level, p<0.05.

Table 4-14(continued)

Variable		riment Set	Comparison Set	LSD Sig.
	1		NB	0.000***
	2	NP	SB	0.000***
			SP	0.014*
			NB	0.378
Intrusiveness	3	SB	NP	0.000***
			SP	0.107
			NB	0.013*
	4	SP sity	NP	0.014*
		Jan 艾1	SB	0.107
	1 N	OF B書	www.gnP	0.006**
		NB Cultur	e UniverSB	0.640
			SP	0.250
			NB	0.006**
Irritation	2	NP	SB	0.022*
			SP	0.099
			NB	0.640
	3	SB	NP	0.022*
			SP	0.497

(continued)

Table 4-14(continued)

Variable	Exper	riment Set	Comparison Set	LSD Sig.
	1		NB	0.250
Irritation	4	SP	NP	0.099
			SB	0.497
			NP	0.012*
	1	NB	SB	0.495
			SP	0.418
	2 NP		NB	0.012*
		MRsity	Libra	0.001**
Avoidance		(3) 家文1	SP	0.081
Tivoldance		D C B 里	NB 能	0.418
	3	3 圖書	e United NP	0.001**
			SP	0.135
			NB	0.418
	4	SP	NP	0.081
			SB	0.135

Note: \*\*\* Significant Level, p<0.001.

<sup>\*\*</sup> Significant Level, p<0.01.

<sup>\*</sup> Significant Level, p<0.05.

#### A. Intrusiveness

In the first part of Table 4-14, intrusiveness shows only 2 pairs of comparison outcome turn out to be insignificantly different from each other. (NB/SB, p=0.378; SB/SP, p=0.107). For the rest of 4 pairs (NB/NP, NB/SP, NP/SB, and NP/SP), the figures indicate the significantly differences among them. With Table 4-15, figures shows as followed explanations:

Table 4-15 Mean Value of Intrusiveness Among Four Sets

Experiment Set	Mean	Std.
NB	3.706	1.252
NP	vers4.758	1.324
SB	3.893	1.245
SP	4.232	1.249
Total	圖有稱意	1.321

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### a. Constrain to the same format: SP/NP; NB/SB

SP/NP: The results shows there is significant different between the two sets. However, the intrusiveness of ad with sales promotional message is less than the one with non-sales one. Verifying the H3a of the study is significantly effect in opposite way.

NB/SB: There is no significant evidence to support the difference among this pair. This means the insignificant is caused from the different promotional messages, where also consists with the unsupported result of H2. There are no dif-

ferences among the different promotional messages. Therefore, verifying the H3b is statistically insufficient to support.

### b. Constrain to the same message: SP/SB; NP/NB

SP/SB: There is no significant evidence to support the differences among this pair. Due to the interaction of sales promotional message can moderate the intrusiveness effect caused form format. Therefore, verifying the H3c is statistically insufficient to support.

NB/NP: There is significantly different between the two sets, which pop-up is higher intrusiveness than banner one. Thus, the differences are caused form the format factor, which also coheres with the supported result of H1, verifying the H3d of the study as statistically supported.

### c. Under no condition: SP/NB; NP/SB

SP/NB: This pair of comparison indicates the significant difference between the two sets. Verifying the H3e with statistically supported, as the ad presented pop-up with sales promotional message is significantly higher than the banner with non-sales one.

NP/SB: This pair of comparison indicates the significant difference between the two sets. Verifying the H3f with statistically supported, as the ad presented pop-up with non-sales promotional message is significantly higher than the banner with sales one.

#### B. Irritation

In the second part of Table 4-14, irritation shows only 2 pairs of comparison outcome turn out to be significantly different

from each other (NB/NP, p=0.006\*\*; NP/SB, p=0.022\* < 0.05). With Table 4-16, figures shows as followed explanations:

Table 4-16 Mean Value of Irritation Among Four Sets

Experiment Set	Mean	Std.
NB	3.314	1.196
NP	3.900	1.299
SB	3.411	1.352
SP	3.551	1.123
Total	3.539	1.257

NB/NP: This pair comparison shows under the same non-sales promotional message designing, the ad presented as pop-up format is more irritating than banner one.

NP/SB: This pair comparison shows the ad presented as pop-up format with non-sales promotional message is more irritating than banner with sales one.

#### C. Avoidance

In the third part of Table 4-14, avoidance shows only 2 pairs of comparison outcome turn out to be significantly different from each other. (NB/NP, p=0.012\*; NP/SB, p=0.001\*\*). With Table 4-17, figures shows as followed explanations:

Table 4-17 Mean Value of Avoidance Among Four Sets

Experiment Set	Mean	Std.
NB	2.86	0.564

(continued)

Table 4-17(continued)

Experiment Set	Mean	Std.
NP	3.17	0.747
SB	2.78	0.791
SP	2.96	0.801
Total	2.94	0.743

Consisting with the irritation result, both statistically significantly pairs of comparisons, have the positive relationship in irritation and avoidance. The more the ad feels irritation, the more it causes consumer to behave avoidance level (NP/NB: 3.17>2.86; NP/SB: 3.17>2.78).

### 2. Interaction of Formats, Messages, and Genders

Table 4-18 is the homogeneity of variance test among the tested groups. The result, insignificant, indicates the well condition of homogeneity (p=0.188, 0.910, 0.570 > 0.05) for further variances analysis procedures.

Table 4-18 Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Intrusiveness	1.663	7	279	0.188
Irritation	0.386	7	279	0.910
Avoidance	1.985	7	279	0.570

Note: MONOVA design: Intercept+Experiment Sets+Genders+Experiment Sets×Genders

Table 4-19 indicates that considering to gender as moderator variable, the interaction effect with formats and messages resulting only one aspect of intrusiveness, irritation, to be statistically significant (p=0.007\*\* < 0.05). However, the figure of intrusiveness aspect's p-value is insignificant, but quite close to significant level 0.05. Since the gender variable only consists two groups, which is inappropriate for Post Hoc test. Therefore, this part of analyses is further using several different conditions to process of Two-way ANOVA test for gender moderate effects.

Table 4-19 MONOVA Test for Formats, Messages, and Genders

Variable	Type III Sum of Squares	Mean <sup>ty</sup> Square	ibra df	F	Sig.
Intrusiveness	10.708	3569	全 35//s 館	2.249	0.083
Irritation	18.487	6.162 <sub>ure</sub>	University 3	4.144	0.007**
Avoidance	1.370	0.457	3	0.861	0.462

Note: 1. MONOVA design: Intercept+Experiment Set+Gender+Experiment Sets×Genders.

- 2. MONOVA source: Experiment Sets×Genders.
- 3. \*\* Significant Level, p<0.01.

### A. Constrain to The Same Format

a. Under the same pop-up format condition. Table 4-20 is the two-way ANOVA test for only 2 experiment sets, NP/SP. All three aspects of intrusiveness effect's p-value are statistically insignificant, verifying the H6a is statistically in sufficient to support; there is no significantly gender difference.

Table 4-20 Two-way ANOVA for NP/SP and Gender

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	0.090	0.090	1	0.054	0.817
Irritation	0.265	0.265	1	0.179	0.673
Avoidance	0.133	0.133	1	0.224	0.637

b. Under the same banner format condition. Table 4-21 is another pair of experiment sets' two-way ANOVA test (NB/SB). Result shows that there are significantly different in two aspects, intrusiveness and irritation (p=0.009\*\*, 0.001\*\* < 0.05).

Table 4-21 Two-way ANOVA for NB/SB and Gender

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	10.572	10.572	1	7.049	0.009**
Irritation	17.494	17.494	1	11.705	0.001**
Avoidance	1.093	1.093	1	2.345	0.128

Note: \*\* Significant Level, p<0.01.

With the Table 4-22 below indicates the consumers' gender different does moderate the effects of intrusiveness and irritation, while interact with promotional message differences. Thereby, the H6b of this study is partially and statistically supported. When male consumer faces the ad presented as banner with sales promotional message, it is significantly higher intrusiveness and irritation but less intrusiveness and irritation toward the banner with non-sales one compared with female consumer, showed in Figure 4-3 and Figure 4-4.

Table 4-22 Mean Value of NB/SB and Genders

Variable	Message	Gender	Mean
		Male	3.523
Intrusiveness	Non-Sales	Female	3.922
	圖書	館(Total	3.706
	Cultur	Male	4.209
	Sales	Female	3.520
		Total	3.893
		Male	3.866
	Total	Female	3.721
		Total	3.800
	Non-Sales	Male	3.159
Irritation		Female	3.497
		Total	3.314
		Male	3.897
	Sales	Female	2.836
		Total	3.411
		Male	3.528
	Total	Female	3.167
		Total	3.363

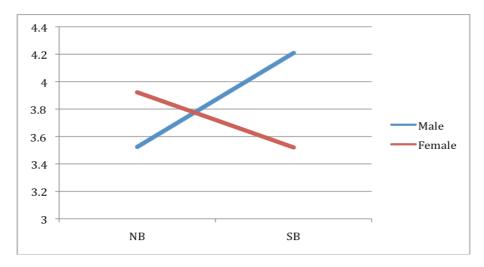


Figure 4-3 Interaction Effects of NB/SB and Gender in Intrusiveness

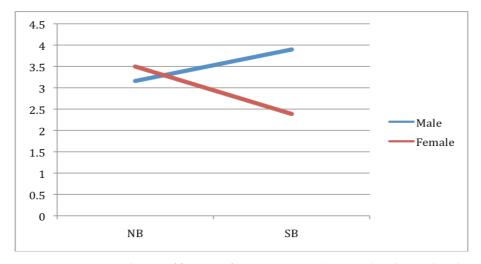


Figure 4-4 Interaction Effects of NB/SB and Gender in Irritation

### B. Constrain to The Same Message

a. Under the same sales promotional message condition. Table 4-23 shows there is only one aspect of intrusiveness effect, irritation, significantly different among genders (p=0.014\* < 0.05).

Table 4-23 Two-way ANOVA for SB/SP and Gender

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	2.694	2.694	1	1779	0.184
Irritation	3.765	3.765	1	6.174	0.014*
Avoidance	0006	0006	1	0.009	0.923

Note: \* Significant Level, p<0.05.

According to Table 4-24, while male consumer faces the ad, no mater it presented as pop-up or banner format, it feels significantly more irritation than female consume. As result, the H6c of this study is significantly support toward the effect, but in opposite way. The interaction effect is shown as followed in Figure 4-5.

Table 4-24 Mean Value of SB/SP and Genders

Variable	Format	Gender	Mean
		Male	3.897
	Banner	Female	2.836
		Total	3.411
	Pop-up	Male	3.594
Irritation		Female	3.520
		Total	3.551
		Male	3.761
	Total	Female	3.220
		Total	3.482



Figure 4-5 Interaction Effects of SB/SP and Gender in Irritation

b. Under the same non-sales promotional message condition. Table 4-25 indicates there is no p-value that comes to be statistically significant. Thereby, the H6d of this study is statistically insufficient to support.

Table 4-25 Two-way ANOVA for NB/NP and Gender

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	1.614	1.614	1	0.971	0.326
Irritation	2.928	2.928	1	1.880	0.173
Avoidance	0.334	0.334	1	0.761	0.385

#### C. Under No Condition.

a. SP/NB. Table 4-26 shows there is no p-value that comes to be statistically significant. Thereby, the H6e of this study is statistically insufficient to support.

Table 4-26 Two-way ANOVA for SP/NB and Gender

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	2.634	2.634	1	1.685	0.196
Irritation	1.534	1.534	1	1.138	0.288
Avoidance	0.947	0.947	7 2 1	1.981	0.162

b. NP/SB. Table 4-27 shows there is no p-value that comes to be statistically significant. Thereby, the H6f of this study is statistically insufficient to support.

Table 4-27 Two-way ANOVA for NP/SB and Gender

Variable	Type III Sum of Squares	Mean Square	df.	F	Sig.
Intrusiveness	3.560	3.560	1	2.209	0.140
Irritation	5.523	5.523	1	3.386	0.068
Avoidance	0.191	0.191	1	0.327	0.568

# 4.6 Correlation of Three Aspects of Intrusiveness

Table 4-28 is the Pearson Correlation Matrix' results. This indicates the recognition of intrusiveness is positively related to feeling irritation, then further becoming avoidance behavior, which are all significantly correlated in one another.

Table 4-28 Correlation of Intrusiveness Effects

Vari	iable	Intrusiveness	Irritation	Avoidance
Intrusiveness	Pearson Coefficient	1	0.727**	0.314**
musiveness	Sig. (2 tailed)		0.000	0.000
Irritation	Pearson Coefficient	0.727**	1	0.337**
IIIIauon	Sig. (2 tailed)	0.000		0.000
Avoidance	Pearson Coefficient	圖0.314譜	0.337**	1
Avoidance	Sig. (2 tailed)	C40.000	0.000	-

Note: \*\* Significant Level, p<0.01.

# Chapter 5 Discussion

In this chapter, here mainly consists as three sections. First, interprets the results as conclusion according to last chapter's data analyses. Secondly, the managerial implications from this study are discussed. Finally, the limitations and future research aspect is declared.

#### 5.1 Conclusion

In this section, there are three major parts of conclusion to make. This will be 1) the effect of intrusiveness on online advertising formats, 2) the effect of intrusiveness on promotional messages, and 3) the effect of intrusiveness on interaction of formats and messages. And each part of conclusion is also provided with the integrated hypotheses results respectively.

### 1. The Effect of Intrusiveness on Online Advertising Format

Previous researches have already indicated that the attitude toward the specific advertisement affects the advertising effective. The presented formats are some critical factors in directly affections (Burn and Lutz, 2006; Chatterjee, 2008; Ducoffe, 1996; Edwards et al., 2002; Li and Leckenby, 2004). Attitudes are most likely caused by self-awareness of emotions. Those positive emotions are then forming as strengthen of positive effects, whereas the negative emotions forming negative effects toward advertised counterparty in the other hand. Pop-up format of advertisement is famous and popular by its nature of intensively exposure ability to accomplish the attrac-

tions. However, this form of advertising is now viewed as the most negative format of online advertising for all Internet users (Chatter-jee, 2008; IAB, 2008). As the matter of face, that is why the several of pop-up blockers emerge in nowadays browser systems. Because, the more the online advertisement interrupts automatically, the more the consumers resented it.

Again, the tests' result of this study according to Table 5-1, the supported hypothesis verified confirming the pop-up format is giving consumers more intrusiveness recognition, more irritation feelings, and further causing higher degree of avoidance behaviors. Nevertheless, the different format presented causes different degrees of effect, but there are no statistically evidences to convince with consumer genders' difference affection between the two formats.

Table 5-1 Hypothesis Result for Online Advertising Format

Hypothesis	Descriptions ulture V	Results		
		Intrusiveness	P>B	
H1	Pop-up is significantly more	Irritation	P>B	
intr	intrusiveness than banner.	Avoidance	P>B	
	Male consumer feels more			
	intrusiveness toward pop-up	p		
H4	and less intrusiveness toward	Unsi	Unsupported	
	banner than female consum-			
	er.			

### 2. The Effect of Intrusiveness on Promotional Message

Besides the format effect, the advertisement message per se is another critical factor. Either the message embedded is informative enough or how it persuades as discounts or some sort. The message itself is another force affecting consumer side (Burn and Lutz, 2006; Smith, 1996). And certainly it also does affects and causes consumer responses of emotions (Homer and Yoon, 1992; Meyers-Levy and Malaviya, 1999).

Within this study's test results according to Table 5-2, message framing as sales vs. non-sales, result shows there are no statistically evidences to support that consumer tends to form significant different effect of intrusiveness between this framing in generally.

However, the consumer side of moderate effect, neutralized by gender differences, causes the promotional message effect as insignificant. Result indicates that male consumer is significantly felt intrusiveness and got irritation by sales ads than female consumer. Meanwhile, male consumer is significantly felt not intrusiveness and got irritation by non-sales one.

Table 5-2 Hypothesis Result for Promotional Message

Hypothesis	Descriptions	Result		
	Sales ad is significant more			
H2	intrusiveness than non-sales	Unsupported		
	one.			
	Male consume feels more in-		Sales	Non-
	trusiveness toward sales ad		Sales	sales
H5	and less intrusiveness toward	Intrusiveness	M>F	M <f< td=""></f<>
	non-sales ones than female	Irritation	M>F	M <f< td=""></f<>
	consumer.	Avoidance	Unsup	ported

(continued)

#### 3. The Effect of Intrusiveness on Interaction of Format and Message

Every each of advertisement is composted as format and message. Thus, whenever consumer faces the ad, there is an interaction within. In Table 5-3 indicates the result under same format condition.

Constrain to pop-up format, the ad with sales message is less intrusiveness than non-sales one. One possible reason is that sales ad relatively provides more specific information than non-sales. Binding with pop-up format, which is already proved to be more intrusiveness, the more information embedded, the less it gets intrusiveness. This result tested to be no significant gender differences inside.

In contrary, when it comes to bind with banner format, there are no significant differences between sales ad and non-sales one. However, it's the gender moderate effect that neutralizes this result. Concludes male consumer tends to recognize more intrusiveness and get more irritation with sales ad than female, vice versa.

Table 5-3 Hypothesis Result for Format and Message Interaction Constrain to Same Format

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Hypothesis	Descriptions	R	esults
	Under same non un format	Intrusiveness	S <n*< td=""></n*<>
H3a*	Under same pop-up format, sales ad is significant more intrusiveness than non-sales one.	Irritation	Unsupported
		Avoidance	Unsupported

Table 5-3(continued)

Hypothesis	Descriptions	R	esults	
Нба	Under same pop-up format, male consumer feels more intrusiveness toward sales ad and less intrusiveness toward non-sales than female consumer.	Unst	apported	
НЗЬ	Under same banner format, sales ad is significant more intrusiveness than non-sales one.	Unsi	upported	
			Sales	Non- sales
H6b	Under same banner format, male consumer feels more intrusiveness toward sales ad	Intrusiveness	M>F	M <f< td=""></f<>
1100	and less intrusiveness toward non-sales than female con- sumer.	Irritation	M>F	M <f< td=""></f<>
	CE 圖書館	Avoidance	Unsup	ported

Note: \*\* Test result shows significant but in opposite way with hypothesis.

Table 5-4 shows another condition setting, constrain to same promotional message.

Constrain to same sales message, the result shows no significant different in two different formats that causes different degree of intrusiveness. However, male consumer tends to get more irritation with either two formats than female consumer does. The possible reason is that since the sales message is providing, the probable intrusiveness caused by pop-up format shifted by the relatively more information which sales ad have sent already.

In contrary, when it comes to bind with non-sales message without any significant gender differences, the pop-up format is significantly intrusiveness toward consumer than banner dose.

Table 5-4 Hypothesis Result for Format and Message Interaction Constrain to Same Promotional Message

<u> </u>				
Hypothesis	Descriptions	R	esults	
НЗс	Under same sales message, pop-up ad is significant more intrusiveness than banner one.	Uns	upported	
			Pop-up	Banner
116.*	Under same sales message, male consumer feels more intrusiveness toward pop-	Intrusiveness	Unsup	ported
H6c*	up ad and less intrusive- ness toward banner than	Irritation	M>F**	M>F**
	female consumer. 圖書館	Avoidance	Unsup	ported
	Under same non-sales	Intrusiveness	P>	>B
H3d	message, pop-up ad is sig- nificant more intrusiveness	Irritation	P>	>B
	than banner one.	Avoidance	P>	>B
H6d	Under same non-sales message, male consumer feels more intrusiveness toward pop-up ad and less intrusiveness toward ban- ner than female consumer.	Uns	upported	

Note: \*\* Test result shows significant but in opposite way with hypothesis.

In Table 5-5 indicates the result without any comparison condition settings.

Without the gender moderate effect, the ad presented as pop-up format with sales message is significant intrusiveness than the banner with non-sales one. Also, the ad presented as pop-up format with non-sales message is significant intrusiveness, irritation, and avoidance than the banner with sales one. Moreover, according to the previous results of H3a and H3c, the pop-up ad with non-sales message is even more intrusiveness than sales one.

Table 5-5 Hypothesis Result for Format and Message Interaction Constrain to No Condition

Hypothesis	Descriptions	R	esults
	Pop-up format with sales	Intrusiveness	SP>NB
НЗе	message ad is significant more intrusiveness than	Trritation	Unsupported
	banner with non-sales one.	Avoidance	Unsupported
Нбе	Male consumer feels more intrusiveness toward popup with sales message ad and less intrusiveness toward banner with nonsales than female consumer.	Unsupported	
	Pop-up format with non-	Intrusiveness	NP>SB
H3f	sales message ad is signifi- cant more intrusiveness	Irritation	NP>SB
	than banner with sales one.	Avoidance	NP>SB

(continued)

Table 5-5(continued)

Hypothesis	Descriptions	Results
H6f	Male consumer feels more intrusiveness toward popup with non-sales message ad and less intrusiveness toward banner with sales than female consumer.	Unsupported

## 5.2 Implication

According to this study's research problems, research purposes, and the final result concluded, the following is the managerial implications, which this study could propose respectfully.

### 1. Regarding to Online Advertising Format

In sync with the improvement of quality in browsing environment, which might includes more applications or software support, the online advertising format definitely emerges even more vivid or capable for interact with the Inter users.

The study intends to categorize all formats into two basic exposure manners, automatically as pop-up or passively as banner. Coherent with previous research results that banner is probably more ideal format considering to the interruption effect that causes most of negative emotions during Internet suffers' activities.

Therefore, the online advertising on the third party providers or advertising on the corporate own website, basically the advertisement formats with less interruption ability should be considering in the first place.

#### 2. Regarding to General Online Advertising

What kind of messages that providers want to send out to the public depends on the purposes that the advertised corporate need. Because this study finding indicates the sales framing and non-sales framing have no major differences for consumer, the match between format and message should both giving considerations at the same time.

Here are some rules provided.

- A. Banner format is the first choice. As long as the online advertising is designed as banner form, no matter the ad per se embedded as sales or non-sales message it receives the least negative feelings for consumer.
- B. Never embed non-sales with pop-up format. This design combination is certainly the most undesired for consumer. Because the pop-up format has provided with more aggressive way to receive consumers' attention, but the non-sales message won't be able to give relatively much consumption information. Therefore, most of consumers view this kind of online advertising as nothing particular but interruption only.
- C. Using pop-up format with sales promotional message as the neutral solution. Only for the reason that the corporate need to reach more advertising effectives outcomes like purchase figures in the relatively short term. Cause this kind of advertising receives

much more attention than coming from banner, and just slightly increases the little intrusiveness as well.

#### 3. Regarding to Gender Specific Product Type

This study conducts the advertised product as tourism product. The reason is solely because tourism products are relatively less different in consumer involvement by genders. For the relatively high pricing of tourism products make both male consumers and female consumers as high-involvement. Thus, the results are bonded as after controlling as equal as possible for the matter of gender specific product types.

Nevertheless, the product advertised do not have gender preference in nature, there are still resulting some gender differences that moderately affects the origin interaction of format and message. Results show that generally male consumer accepts the ad with nonsales message more positively than sales one. In contrary, female prefers more sales message ads than non-sales one. This should be probably able to generalize into other kinds of gender specific product types' advertising.

### 5.3 Limitation and Further Research Aspect

In this section, here declares some of the research limitations generated throughout the process of this research conducted. Also, suggesting some aspects that could be potential care for future researches.

#### 1. Limitations

- A. Due to the manipulation of independent variables, this study simply categorizes the online advertising formats into two forms representing banner as relatively passively exposure ad and popup as relatively automatically exposure ad in general. Although, previous researches have conducted as the same manner, but still the results for the format affections are not sensitively and precisely enough to generalize for all kinds of basic six formats' possible interpretations.
- B. Throughout the online advertisement and website design process, this study conducts as laboratory experiment method with designing four different online advertisements embedded each within the same webpage forming a scenario of actual Internet browsing activity environment for participants. Because of the lack of real Internet webpage design abilities, respondents might not be able to link the scenario to actual surroundings. Therefore, the result could be potentially failed to reflect the true effectiveness, which might also causes inaccuracy of the results.
- C. During the questionnaire process, the study uses convenience-sampling procedure. Although the homogeneity of equal variances is tested, the participants can still be insufficient to represent for mass consumer traits. As result, the result might be having enough generalizability.

### 2. Future Research Aspects

A. This study indicates some gender moderate effects caused mainly by the advertising message per se. One possible future re-

- search aspect is that conducts research with more gender specific product type of advertising, should be able to explain the gender effect more thoroughly.
- B. Since the pop-up blocker is becoming the norm technique, there still have some other format of online advertising having been discussed before. In order to generalize the effect of intrusiveness on different formats, future research could aim for different formats' effect rather than just banner or pop-up ad.



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## Appendix

Here are the advertisements that designed for this study. The four experiment sets are NB, NP, SB, and SP, showing figures respectively as following:



Figure A-1 Non-sales message presented as banner format (NB)



Figure A-2 Non-sales message presented as pop-up format (NP)



Figure A-3 Sales message presented as banner format (SB)



Figure A-4 Sales message presented as pop-up format (SB)