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Exploring Consumers' Keyword Ads Search Behaviors: An Integration of Theory of Planned Behavior and Flow Theory

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Abstract

In the 21st century, e-Commerce and online shopping have come to a stage of steady growth. To encourage consumers to shop online, Internet advertising has become one of the most common strategies for online marketing. The combining traditional and online advertising become a popular marketing strategy and growingly prevalent in Taiwan. While consumers' keyword search behavior is an information-gathering behavior before they make purchase, the advertisers ultimately wish consumers' clicking on Internet advertisements would get them fascinated with certain products.

Therefore, this paper adopted the theory of planned behavior as the theoretical background, and the flow theory and perceived creativity were the important antecedent beliefs to explore the consumers' keyword ads search behaviors. An online survey was conducted and a total of 280 usable responses were collected, constituted a response rate of 76.1%. Our results suggested that TPB provided a reasonable depiction of consumers' keyword ads search behaviors. And the flow experience and perceived creativity were the significant antecedent beliefs in our research model. Altogether, the research findings show that all the hypotheses were statically significant except the relationship between the perceived behavior control and keyword search behavior. Based on the research findings, implications and limitations are discussed.

Keywords: Theory of Planned Behaviour, Flow Theory, Perceived Creativity, Keyword Ads

1 INTRODUCTION

In the 21st century, e-Commerce and online shopping have come to a stage of steady growth. To encourage consumers to shop online, Internet advertising has become one of the most common strategies for online marketing. According to eMarketer (2007), online advertising revenue in 2008 was about 1.75 billion, and the estimative number may reach 4.3 billion in 2011. According to the Industrial Marketing Trend Survey by GlobalSpec (2007), more and more corporations worldwide allocate their marketing budget into online advertising, showing how promising it is. Moreover, Veronis Suhler Stevenson Institution (VSS US) in 2007 has also predicted that online advertising will replace newspapers in 2011 and become the largest advertising medium.

In the vast market of online advertising, eMarketer (2007) pointed out that the scale of the global market of online marketing in 2007 was a 15.9 billion USD worth one, and keyword advertising alone accounts 6.5 billion USD (41% of the entire online advertising). eMarketer (2008) thus predicts that global online advertising will continue to grow so do keyword advertising. Keyword advertising in the States that have developed online advertising takes up more than 42%, and the counterpart in Korea is even close to 63%. All these figures indicate that the market of keyword advertising is still growing, and the same phenomenon is found in Taiwan. For example, the Internet Advertising and Media Association (IAMA) has pointed out that Taiwan's online advertising revenue in 2007 was 4.95 billion NT, and 1.594 billion of which was generated by keyword advertising alone. This is a growth of

59.4% compared to that of 2006 and is the key aspect of the growth of the entire online marketing market. Further, IAMA has also predicted that the total revenue generated by online advertising in Taiwan in 2008 could reach 6 billion NT, and keyword advertising will continue to grow and enjoy a growth rate of approximately 30.87%, making it the main driving force behind the development of the entire market of online marketing in 2008.

Different types of ads have different advertising effects, and companies often use one type or multiple types of ads simultaneously depending on their goals. With online advertising gaining popularity, many companies have tried combining traditional and online advertising for integrated marketing (e.g., TV ads, ads in printed media, and online ads). In 2007, HSBC Direct first started combining TV ads with the keyword ads which helped them reached their objectives of remaining bank account balance and achieving the estimative number of clients; even they gained the first prize of "Taiwan's eMarketer". Since then, the combination of traditional and online keyword ads started to be found everywhere. According to the statistics by Yahoo! in November, 2007, there were more than 40 TV ads that had keyword links by the end of October.

Considering the popularity of combining traditional and online advertising, more and more products in Taiwan are being marketed this way. An important insight why traditional ads are combined with online keyword ads is that information is ultimately accumulated on the Internet, and traditional ads are just a way to lead a user to find out the target information or product online. As a result, this kind of combination will continue to be a common method in future marketing. However, how influential this kind of combination marketing is on consumers seems an important issue that needs to be explored. Actually, consumers' keyword searching is an information-gathering behavior before they make purchase, and the advertisers ultimately wish consumers' clicking on Internet advertisements would get them fascinated with certain products. Therefore, this leads to a research interest in how consumers' keyword ads browsing influence their searching intentions and/or behaviors regarding purchase. In order to understand the abovementioned issues, this paper adopts the theory of planned behavior from social psychological perspective and the flow theory to explore the following research purposes: first, exploring the consumers' keyword ads searching behaviors from the theory of planned behavior; and the second, investigating the consumers' flow experience on their keyword ads searching behaviors.

2 LITERATURE REVIEW

2.1 Integration of traditional and online keyword advertising

Advertisements can be divided into several categories based on the type of medium involved, including TV ads, printed media ads, broadcasting ads, and online advertising. Among them, the common appearance styles of online advertising are banners, pop-ups, and keyword advertising. Further, succeeding the characteristics of the Internet, online advertising has several features such as interactivity, multimedia techniques, easy 24-hour access to the most updated information, global coverage, and so forth (Pavlik 1998).

Keyword advertising was first introduced by GoTo.com (today's "Overture") in 1998 for the purpose of looking for the highest bidders. At that time, GoTo.com provided keyword advertising services for Yahoo and Google, the latter started its own similar services in 2002. Yahoo purchased GoTo.com in 2003 to become "Overture", and Askcom and MSN also started providing similar services in 2005. Today, keyword advertising is the main resource of revenue for many search engines (Tyacke and Higgins 2004).

Keyword advertising, or known as the terms: keyword search advertising (KSA) (e.g., Al-khasoneh and Sweeney 2006), pay per click (PPC) (e.g., Anupam et al. 1999), or sponsored search advertising (e.g., Fain and Pedersen 2005), is a form of text-based online advertising (Burns 2005), and the way it

works is that when a consumer inputs a certain keyword in a search engine, the ad would often be shown on the top or two sides of the page of results, including the keywords, links, and brief descriptions purchased by the advertising client, the consumer then can then decide whether to click on a button and be connected to an affiliated website or not (Faber et al. 2004, Applegate 2006). As for the search engine provider, who would only collect fees from the advertisers when the consumer actually clicks on the keyword (Tyacke and Higgins 2004).

Consumers use keyword searching when they are interested in a certain product they are looking for, and this gives keyword searching two advantages: first, effectively sells things to targeted groups, and the second, consumers indeed are motivated to click on the keywords (Faber et al. 2004). However, keyword advertising are not without flaws; for example, for advertisers, once the consumer clicks on a keyword, the search engine would charge money regardless whether the consumer actually understands the webpage he/she is about to be shown, and the other shortcoming is that a consumer's high "click" motive is often accompanied by high conversion rate (Tyacke and Higgins 2004).

In 2007, many companies in Taiwan started 360° marketing by integrating TV ads, or printed media ads (e.g., newspaper), and keyword search advertising. More and more businesses started using integrated marketing, even the movie industry (e.g., Stephen Chow's "CJ7", Levi's "1 1/2", or Toyota "star"), in order to encourage consumers to go online and learn about their products by promoting keywords through traditional media. Moreover, the keywords maybe related to popular topics such as "asking for a raise" during depression or brand names such as "nests." They may be related to products such as "ACUVUE disposable contact lens" or even DORITOS such as "who are you" for cookies or "panda makeup" for ORBIS. To utilize this kind of integrative advertisements, keywords are often shown on an ad on TV or printed media that lead consumers to what they need to input in search engines. When the keyword is shown on a TV ad, the narrator would often remind the audiences to key in the specific term online. Yet, how effective are these keyword advertisements in terms of attracting consumers? What the advertisers want is for a consumer to actually go online, key in the keyword, and browse the relevant page after seeing the keywords in an advertisement. This leads a necessity for this study to explore the consumers' keyword ads searching behaviors.

2.2 Theory of Planned Behavior

The theoretical background of this research is the theory of planned behavior (TPB), which is an extension of the well-known theory of reasoned action (TRA) (Fishbein and Ajzen 1975). The TRA asserts that behavior is a direct function of behavioral intention. According to the TRA, behavior intention is modeled as the weighted sum of the attitude and subjective norm (Fishbein and Ajzen 1975). Further, the TPB model extends from the TRA model by incorporating an additional construct, namely perceived behavioral control (PBC), to account for situations in which an individual lacks substantial control over the targeted behavior (Ajzen 1991), which represents "the possible effects of perceived behavioral control on achievement of behavioral goals" (Ajzen 1988, p. 133). According to Ajzen (2002), the concept of perceived behavioral control is a latent variable that encompasses two sub-dimensions: controllability and self-efficacy, the latter one is in line with Bandura's (1982) concept of perceived self-efficacy.

Numerous researchers have applied TPB to the study of online consumer behaviors, for example, Pavlou and Fygenson (2006) using TPB to investigate the information searching and product purchasing behavior. Therefore, TPB is also utilized in this study to examine consumers' online keyword searching behaviors. The operational definitions of the variables involved in this theory are as following: The "intention to search keyword ads" is the consumer's willingness to search for the keyword. The "intention to purchase" is the consumer's willingness to purchase a certain product. The "attitude" in keyword searching is the consumer's overall comment on keyword searching. The "subject norm" is how an individual judge keyword searching, in this study, this variable is defined as "peer norm", which means one's peer groups that conduct keyword search behavior based on their

friends or peers. "Perceived Behavioral Control" (PBC) in keyword searching refers to a consumer's perceived level of difficulty when searching for keywords online. Among this PBC concept, two sub-dimensions are defined respectively: "Controllability" in keyword searching is about whether a consumer has the resources needed for keyword searching, including a computer or the access to Internet. "Self efficacy" in keyword searching is whether the consumer him/herself has the confidence that he/she is able to go online and gather information or use search engines.

2.3 Intentions regarding keyword searching and making purchases

According to the theory of implementation intentions proposed by Gollwitzer (1999), intention is a self-regulatory strategy that drives a goal-oriented behavior, which in turn generates a series of potential intentions that may actualize a behavior. In the study of Pavlou and Fygenson (2006), they have study on the two behaviors of "acquiring information" and "purchasing a product", which treat the behavior of purchasing as a goal-oriented one and that of information acquisition as a tool for implementing such behavior (implementation intentions). Their findings indicate that the intention of buying a product (goal intention) takes place before the intention of acquiring information on a product (implementation intention), and drives the person to carry out the behavior. In this study, a consumer's behavior of going online and using keyword search seen on a TV ad to learn more about a product or service that he or she is interested in is viewed as a behavior for acquiring product or service information.

2.4 Beliefs

In the TPB model, three kinds of external beliefs are considered: attitude belief, subjective norm belief, and perceived behavioral control belief. In study the Internet related behavior, many researchers believe that the "flow experience" plays an important role in our understanding of online consumer behavior (Wu and Chang 2005, Koufaris 2002, Novak & Hoffman & Duhachek 2003, Rettie 2001). Choi et al. (2007) found that the flow experience and attitude are both the core of TPB. In addition, other researchers believed that perceived creativities in advertising influence consumer's attitude (Korgaonkar et al. 1984, Tai 2006). Therefore, in this study, the perceived creativity and flow experience are treated as the significant external beliefs for attitude, subjective norm, and perceived behavioral control.

2.4.1 Flow experience

Flow experience refers to a person's sensation when he or she is completely absorbed into an activity and ignores all other things (Csikszentmihalyi 1990). In order to understand the sensation and cause of "happiness" when the human consciousness and enjoyable activities are at the stage of peak, Csikszentmihalyi (1977) investigated a group of people who enjoy physique activities, including dancers and mountaineers. The findings show that these people always used the word "flow" when describing their optimal experience. When in the "flow" state, an individual's capabilities are matched by the challenges that involve high standards and clear goals. At the moment, the individual is completely focused on the activities and receives instant feedbacks; the actions are spontaneous, and the person is fully integrated with the activities without thinking. There is no fear of failure, and irrelevant stimuli are not processed by the mind. Time no longer feels the same; hours may look like minutes (Csikszentmihalyi 1990, 1996, 1997). In the past, the flow experience has been applied in many research domains, and this concept has been introduced to domains such as information technology, computer-mediated environment (CME), human-computer interaction (CHI), and online consumer experience (Ghani et al 1991, Trevino and Webster 1992, Hoffman and Novak 1996, Koufaris 2002, Chen et al 1999, Skadberg and Kimmel 2004) for more than twenty years.

In the CME and CHI domain, previous researchers have categorized the concept of flow experience into several sub-constructs (Hoffman and Novak 1996, Skadberg and Kimmel 2004, Siekpe 2005). Therefore, four sub-dimensions are included in this study according to the preceding literatures to compose of the variable of flow experience: (1) concentration, defining as no attention left over, irrelevant perceptions and thoughts are screened out, and worries about problems disappear (Csikszentmihalyi 1990); (2) curiosity, refers to attending, pursuing, and self-regulating opportunities for novelty and challenge, eliciting exploratory behaviors (Kashdan and Roberts 2004); (3) enjoyment, the degree to which performing and activity is perceived as providing pleasure and joy in its own right, aside from performance consequences (Wu and Liu 2007); and (4) playfulness, the degree of cognitive spontaneity in some activity (Webster and Martocchio 1992).

In connection the concept of flow experience with the theory of planned behavior, previous studies have found the supports. Hoffman and Novak (1996) believe that the online flow experience helps deepen one's perceived behavior control and positive behaviors in the interactions. Choi et al. (2007) has discovered that an individual's flow experience in enterprise resources planning (ERP) online learning has a positive influence on that person's learning attitude and ERP-related skills. Koufaris (2002) and Wu and Liu (2007) believe that the fun in one's flow experience significantly affects the person's attitude and intention regarding making online purchases. Applying this concept of flow experience into the context of consumer's flow experience, the operational definition in this study refers as being focused on the keyword he or she sees in the traditional ad, which will attract the individual desire to go to the Internet to do the keyword search without being distracted.

2.4.2 Perceived creativity

Creativity is the ability to produce novel, original, useful, and relevant ideas (Choi 2004, Amabile 1996, Oldham and Cummings 1996). Korgaonkar et al. (1984) believes that creative and unique ads can help consumers develop a positive attitude toward the ads and create better awareness and sales. Tai (2006) has discovered a significant correlation between creative ads and successful brand name advertising. In this study, we posit the concept of perceived creativity is the measurement of one's evaluation whether a keyword ad is unique, original, and relevant to a company's products or services. Hence we posit that if a consumer believes a TV ad or the embedded keywords are creative, he or she would be more likely to search for the keyword online.

3 RESEARCH METHOD

3.1 Research model

Summarizing the above mentioned literature reviews; this paper has therefore proposed the research model as shown in Figure 1.



Figure 1. Research model

3.2 Subject

Subjects of this research were individuals who have gone online to search for keywords seen on TV, newspaper, or magazine ads. Sample information is gathered by online surveys. An online survey was conducted at my3q.com during the January 2008. A total of 368 surveys were returned. The exclusion of incomplete questionnaires resulted in a total of 280 usable responses (a net response rate of 76.1%). Among the respondents, 56.4% were males and 43.6% were females. Respondents had an average Internet experience of 8.82 years. Table 1 details the respondents' characteristics.

Items	Frequency (%)	Items	Frequency (%)
Gender		Age	
Male	158 (56.4%)	under 15	1 (0.4%)
Female	122 (43.6%)	15-18	11 (3.9%)
Education		19-23	82 (29.3%)
junior and senior high	42 (15%)	24-28	97 (34.6%)
school		29-35	63 (22.5%)
college degree	199 (71.1%)	36-42	16 (5.7%)
above graduate degree	39 (13.9%)	above 42	10 (3.6%)
Internet experience (av	verage)	8.82 years	

Table 1.Demographic statistic

3.3 Reliability and validity

Table 2 and 3 show the values of Cronbach's α , composite reliability (CR), and average variance extracted (AVE). Cronbach's α among all samples and respective groups, ranging from 0.82 to 0.95, exceeds the minimum acceptable level of 0.70 recommended by Nunnally (1978); and the CRs, ranging from 0.90 to 0.97, exceed the level of 0.60 recommended by Fornell (1982), confirming the internal consistency of the research constructs' items. The AVE estimates, ranging from 0.70 to 0.91, exceed the 0.50 lower limit recommended by Fornell and Larcker (1981), supporting convergent validity. In addition, the correlation between each pair of research constructs is less than the AVE estimate of each construct (Fornell and Larcker 1981, Segars and Grover 1998), therefore supporting the discriminant validity.

Items Mean	SD	Cronbach'a	CR	AVE
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pCre	4	4.95	1.05	0.91	.93	.74		
Flow	13	4.71	0.98	0.86	.90	.70		
Att	4	4.53	1.05	0.90	.93	.77		
PNorm	5	4.15	1.26	0.94	.96	.82		
Ctrl	2	5.18	1.13	0.82	.92	.85		
SE	2	5.27	1.16	0.91	.96	.91		
PBC	1	5.19	1.24	n/a	n/a	n/a		
Int_S	3	4.58	1.25	0.95	.97	.91		
Int_P	3	4.56	1.18	0.88	.93	.81		
Beh	1	3.66	1.32	n/a	n/a	n/a		
Legend: pCre: Perceived Creativity; Flow: Flow Experience; Att: Attitude toward Keyword Searching;								
PNorm: Peer Norm; Ctrl: Controllability; SE: Self-Efficacy; PBC: Perceived Behavior Control;								
Int_S: Intention to Search Keyword ads; Int_P: Intention to Purchase; Beh: Keyword Search Behavior								

Table 2.Descriptive statistics for principal constructs

	pCre	Flow	Att	PNorm	Ctrl	SE	PBC	Int_S	Int_P	Beh
pCre	0.74									
Flow	0.69	0.70								
Att	0.71	0.71	0.77							
PNorm	0.54	0.64	0.70	0.82						
Ctrl	0.45	0.42	0.47	0.35	0.85					
SE	0.42	0.37	0.42	0.23	0.78	0.91				
PBC	0.40	0.34	0.43	0.29	0.69	0.81	n/a			
Int_S	0.51	0.62	0.65	0.62	0.52	0.44	0.45	0.91		
Int_P	0.47	0.46	0.56	0.50	0.45	0.41	0.42	0.62	0.81	
Beh	0.32	0.44	0.46	0.49	0.24	0.17	0.24	0.41	0.36	n/a
The diagonal elements (in bold) represent average variance extracted (AVE).										

Table 3.Correlation matrix and Average Variance Extracted

3.4 Data analysis

In this study, both reflective and formative constructs are included in this study. In the research model, For this reason above, we have assessed our hypotheses using structural equation modeling (SEM) with Smart PLS 2.0.M3 to validate casual relationships.

In this research, we have assessed our hypotheses using structural equation modeling (SEM) because of its ability to validate casual relationships. We have chosen Smart PLS 2.0.M3 for the reason that in our model, both reflective and formative constructs are involved (Wold 1966): The PBC is a latent formative construct which is formed by the first-order factor of controllability and self-efficacy; and the flow experience, this is viewed as reflective construct that causes the first-order dimension of concentration, curiosity, enjoyment, and playfulness. As recommended by Chin (1998), bootstrapping with 500 sub-samples was performed to test the statistical significance of each path coefficient using the t-test. Figure 2 showed the structural model results. The research findings show that all the hypotheses were statically significant except the relationship between the perceived behavior control and keyword search behavior.

For the results of antecedent beliefs, the perceived creativity positively influences on the attitude toward keyword searching (β =0.43 with p < 0.001). The flow experience positively impact on the attitude toward keyword searching (β =0.41 with p < 0.001), intention to search keyword (β =0.20 with p < 0.001), controllability (β =0.42 with p < 0.001), and self-efficacy (β =0.37 with p < 0.001). Altogether, the findings demonstrate the importance and appropriateness of the external beliefs in this study.

For the results of the core model concerning the theory of planned behavior, the intention to search keyword is influenced by attitude toward keyword searching (β =0.16 with p < 0.05), peer norm (β =0.19 with p < 0.001), and perceived behavior control (β =0.14 with p < 0.001). For the latent variable of perceived behavior control, which is influenced by controllability (β =0.14 with p < 0.05) and self-efficacy (β =0.71 with p < 0.001). And the intention to search keyword has impacted on keyword search behavior (β =0.38 with p < 0.001). Meanwhile, the intention to purchase has influenced on intention to search keyword (β =0.28 with p < 0.001). However, the only non-significant relationship exists between the perceived behavior control and keyword search behavior.



Figure 2. PLS Result

4 CONCLUSIONS AND IMPLICATIONS

4.1 Conclusions

In 2007, keyword ads on TV or printed media were very pervasive, and this study has integrated the TPB and flow theory to explore consumers' keyword search behavior when seen in traditional ads. In the past, the TPB and flow theory have been respectively applied in areas such as online consumer behavioral studies. In this study, the combination of these two theories demonstrates an appropriate theoretical basis to examine consumers' online keyword search behavior. The findings show that except for the variable of perceived behavior control does not statically influence on keyword search behavior, the overall TPB model is effective in terms of predicting consumers' online keyword search behaviors.

Further, observing the R^2 of perceived creativity and flow experience, which accounted for 59.9% in the dependent variable of attitude toward keyword searching, which demonstrate the two external beliefs are essential and important to consumer's online keyword searching. This result is in line with Hoffman and Novak (1996), who posited that consumers who have experienced flow in a hypermedia CME achieve can increase their perceived behavioral control and positive subjective experiences.

4.2 Implications to academics

The concept of flow experience was often combined to a single theory. For example, Koufaris (2002) combined the flow theory and technology acceptance model (TAM; Davis 1989) to investigate online consumer behaviors. Choi et al. (2007) combined the flow theory and theory of reasoned action (TRA; Fishbein and Ajzen 1975) to explore personal self-efficacy in e-learning. Other studies have combined the flow theory and the intention-behavior to examine the interactions between humans and computers (e.g., Wu and Chang 2005, Mathwick and Rigdon 2004). However, there appeared to be a paucity of research combining the flow theory with TPB to study online consumer behaviors, therefore, this study tries to addresses such insufficiency. Moreover, keyword advertising is now still a new domain that calls for research, and the result of this study can contribute to close the gap, also, the findings can be applied on Internet marketing and e-Commerce.

4.3 Implications to practitioners

Keyword advertising was introduced to Taiwan in 2004, and keyword-embedded TV or printed media magazines became very popular in 2007. Most recently in 2008, different types of business start using this kind of marketing strategies, including furniture, housing, entertainment, finance, and groceries. Due to its high exposure, consumers have got used to this kind of advertising. However, in order to reach the marketing goals, advertisers would like to know more information concerning the advertising effect so as to catch consumers' attention and make them go search the keywords online.

On Feb. 26th, 2008, Google officially launched AdSense for Video¹. This "text +film" and "film + film" advertising is estimated to draw more consumers. In fact, the reason why this form of advertising is promising is because it ingeniously uses films to convey commercial messages, which can create "flow" for consumers. Therefore, just as what this study have found, perceived creativity and flow experience are the key factors that encourage consumers to go online and search keywords. Furthermore, to attract consumers, companies who wish to use the combination marketing strategies providing creative, artistic, imitative, and rich advertisements in order to make them look appealing. Besides, ads that make people feel fun, curious, and focused on them would also be appealing and make the consumers feel that they are able or resourceful to find the keyword.

As the findings of this study show that the intention to purchase a product would affect a consumer's intention to search keywords online. Thus, besides the ads, the product itself must be appealing enough in order to encourage the consumer to go search keywords online. Otherwise, great marketing methods are just a waste of time if the products they are trying to sell are simply not appealing enough. What's more, whether a consumer feels resourceful (controllability) or confidence (self-efficacy) to find the keyword online also affects his/her intention. Hence, search engines that provide keyword services should provide easy and friendly layout to facilitate fast searching, as this would reinforce consumers' intention and consequently generate more profit.

4.4 Research limitations and prospect

Due to the research scope, this paper did not explore into product differences regarding keywords. Different products such as rentals, furniture, or groceries are related to different keywords, and it seems as if some companies have ignored whether their target audience and spectators are able to go online and conduct keyword searching. Future research may look into this direction.

Besides Taiwan, integrated multimedia marketing is also popular in Korea where TV ads are combined with keyword searching. Thus, future studies can also address other countries and determine the differences in terms of keyword searching intentions and behaviors in different cultures.

¹ Introducing video ads, http://adsense.blogspot.com/2006/05/introducing-video-ads.html

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