

## **The Impacts of Alcohol Marketing Communications on Cognitive, Affective, and Behavioral Responses among Thai Youth in Bangkok**

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### **Abstract**

*This research is aimed to study the impacts of alcohol marketing communications on 3-stage responses (a cognitive stage, an affective stage, and a behavioral stage) among Thai youth in Bangkok. The 3-stage responses in this study included 6 variables: awareness, attitude toward alcoholic beverage consumption, attitude toward alcoholic beverages, attitude toward alcoholic beverage businesses, purchase intention to alcoholic beverages, and alcohol consumption behavior. Survey research using self-administered questionnaires by multi-stage sampling with 450 Thai undergraduate youths in Bangkok was used in this study. Descriptive statistics, simple regression analysis (SRA), multiple regression analysis (MRA), simple logistic regression analysis (SLRA), and multiple logistic regression analysis (MLRA) at the 0.05 level of statistical significance were used for analyzing the data. The research findings can be concluded that ten alcohol marketing communications tools including 1) mass media advertising, 2) outdoor advertising, 3) in-store media advertising, 4) public relations, 5) personal selling, 6) sponsorship, 7) sales promotion, 8) online marketing, 9) direct marketing, and 10) event marketing affected all 3-stage responses among Thai undergraduate youth in Bangkok significantly. Evidences from this study suggest that alcohol advertising and other alcohol promotions to young people should be limited. As a result, this study is very beneficial for policy makers and public health organizations in all countries, especially in Thailand, for preventing alcohol consumption among youth more effectively.*

**Keywords :** Alcohol marketing communications, Awareness, Attitude toward alcoholic beverage consumption, Attitude toward alcoholic beverages, Attitude toward alcoholic beverage businesses, Purchase intention to alcoholic beverages, Alcohol consumption behavior, Thai youth

### **1. Introduction**

Alcohol consumption among Thai youth has become a major public health concern in Thailand over the past few decades. National studies (National Statistical Office, 2002, 2005, 2006) have indicated a significant increase in the use of alcohol among the 15-24-year-old age group; national surveys have found that the proportion of Thai youth using alcohol increased from 21.6 % in 2001, to 23.5 % in 2004, and to 23.7 % in 2006. In addition, the latest national surveys of Thailand in 2011 reported that the proportion of Thai youth using alcohol is still at 23.7 % and beer is the most consumed alcoholic beverage among this age group (National Statistical Office, 2011). Moreover, 79.7 % of current Thai drinkers over 15 years old reported that they first tried alcohol at the age of 15-24 years old (National Statistical Office, 2005). One study indicated that 37.3 % of Thai adolescents in Bangkok were alcohol users. Among them, 42.1% were lifetime alcohol users, 56.1% were frequent drinkers (1-20 days in the preceding 30 days of the survey), and 1.7% were heavy drinkers (more than 20 days in the preceding 30 days of the survey) (Ruangkanchanasetr et al., 2005). Between 1991 and 2004, the percentage of drinkers among young Thai females increased by 14% and 50% in the 15-19-year-old and 20-24-year-old age groups, respectively (National Statistical Office, 2005). Consequently, Thai youth should be recognized as a major risk group involved in alcohol use, particularly university students.

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Several studies in Thailand reported the widespread use of alcohol among Thai university students (18-24 years old). A majority (83.5 %) of public university students in Bangkok reported using alcohol (Sukda, 2000), and 97.2 % of private university students in Bangkok reported trying alcohol (Samul, 2002). One study reported a 54.5 % prevalence of alcohol use among university students in Silpakorn University (Jongwutiwes et al., 2002). Another study indicated that the prevalence of alcohol use among university students in southern Thailand was 82.5% of male and 56.6% of female students (Wungthanakorn et al., 2007). A recent study indicated that 53 % of university students in the west of Bangkok and Metropolitan areas were lifetime alcohol users (Inglab, 2008). Furthermore, alcohol use among Thai university students was related to a wide variety of problems including drunk driving, fighting, social relationship, academic problems, health problems, and financial problems (Center for Alcohol Studies, 2007).

It is believed that this social phenomenon is the following result from using the strategy of marketing communications targeted young people among alcohol businesses in Thailand (Thamarangsi, 2009). Currently, although Thailand has a national law to control alcohol advertising and other promotions (Alcohol Control Act B.E. 2551 [2008]), this law can control them partly; it is not a total ban. In other words, the alcohol businesses in Thailand can still advertise their alcoholic beverages or use other marketing communication tools if these practices are conducted for the purpose of giving information or creative knowledge without displaying pictures of the products or packages according to the section 32 of this Act, as shown in the following.

**Section 32.** *No person shall advertise or display names or trademarks of alcoholic beverage deemed to exaggerate their qualifications or induce people to drink such alcoholic beverage either directly or indirectly.*

*Any advertisement or public relation which made by manufacturers of alcoholic beverage of all kinds is able to conduct only for the purpose of giving information or creative knowledge without displaying pictures of the products or packages, except for the display of symbol of such alcoholic beverage or the symbol of the company manufacturing the alcoholic beverage. In this regard, it shall be in accordance with the Ministerial Regulations.*

*The provisions of paragraph one and paragraph two shall not apply to the advertisement originated outside of the Kingdom. (Source: Alcohol Control Act B.E. 2551 [2008])*

In addition, alcohol industry in Thailand tended to use other marketing communications tools more prevalently, such as online marketing, sponsorship, event marketing, direct marketing, and personal selling, to target youth. This strategy is called “Integrated Marketing Communications (IMC)”. IMC was defined by the American Association of Advertising Agencies (AAAA) that it is a concept of marketing communications planning that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communication disciplines (for example, general advertising, direct response, sales promotion, and public relations) and combines these disciplines to provide clarity, consistency and maximum communications impact (Belch & Belch, 2004). Additionally, Schultz (1996) defined that IMC is the process of developing and implementing various forms of perspective communications programs with customers and prospects over time. The goal of IMC is to influence or directly affect the behavior of the selected communications audience. IMC will consider all sources of brand or company contacts which customer or prospect has with the product or service as potential delivery channels for future messages.

Further, IMC makes use of all forms of communication which are relevant to the customer and prospect, and to which they might be receptive. In sum, the IMC process starts with the customer or prospect and then works back to determine and define the forms and methods which persuasive communications programs should be developed. Therefore, IMC is considered as the marketing communication planning process by using any forms of communication tools and contact points to create long-term relationships with stakeholders for maximizing communications impact effectively. Alcohol businesses in Thailand used this marketing communications strategy to target youth prevalently. However, the impacts of using IMC among alcohol businesses on youth in Thailand remain an important question for Thai society. Additionally, the study of marketing communications field beneficial for public health planning, not for businesses, was scarcely found in Thailand. Clearly, beer is the most consumed alcoholic beverage among this age group (National Statistical Office, 2011). Hence, the alcoholic beverage in this study was defined as beer only, not covering other alcoholic beverages.

## 2. Research Objectives

This study is aimed to study the impacts of integrated marketing communications of alcoholic beverage businesses in the big picture of alcohol industry, not a specific brand, on 3-stage marketing information responses (a cognitive stage, an affective stage, and a behavioral stage) among undergraduate youth in Bangkok.

## 3. Research Methodology

A cross-sectional survey was undertaken from March to May 2012 to investigate the impacts of integrated marketing communications of alcoholic beverage businesses on 3-stage marketing information responses including a cognitive stage, an affective stage, and a behavioral stage among Thai university students. The conceptual framework of this study is shown in **Figure 1**. The research proposal was reviewed and approved by The Research Committee, Faculty of Humanities, Kasetsart University. The self-reporting questionnaires were collected from 450 undergraduate students in nine universities located in Bangkok Metropolitan area by multistage sampling technique (1. King Mongkut's University of Technology North Bangkok, 2. Rajamangala University of Technology Phra Nakhon, 3. Srinakharin Wirot University, 4. Saun Sunandha Rajabhat University, 5. Phranakhon Rajabhat University, 6. Bansomdejchaopraya Rajabhat University, 7. University of the Thai Chamber of Commerce, 8. Sripatum University, and 9. Saint John's University). The students were asked to complete the questionnaire after they were informed that their participation was voluntary, that their responses were anonymous and confidential, and that results would be reported only in a group format. All signed informed consent forms were separated from their questionnaires.

The dependent variable in this study was divided into 3 stages according to marketing information responses including a cognitive stage, an affective stage, and a behavioral stage (Belch & Belch, 2004; Duncan, 2008). *Awareness* is the only one dependent variable in the cognitive stage. *Attitude toward alcoholic beverage consumption, Attitude toward alcoholic beverages, and Attitude toward alcoholic beverage businesses* are the three dependent variables in the affective stage. *Purchase intention to alcoholic beverages and Alcohol consumption behavior* are the two dependent variables in the behavioral stage. To assess awareness, participants were asked to give beer brand names that they knew and the research counted those numbers they gave. This method is called as unaided recall test (Aaker, 1996). To assess attitude toward alcoholic beverage consumption, attitude toward alcoholic beverages, and attitude toward alcoholic beverage businesses, 5-point semantic differential scale was used in this part by adapting questions from past studies (Davies, 2009; Pasch, Komro, Perry, Hearst, & Farbaksh, 2007; Dubihlela, 2011; Kuo, Wechsler, Greenberg, & Lee, 2003). Lastly, to assess purchase intention to alcoholic beverages and alcohol consumption behavior, the dichotomous question (yes or no) was used in this part. Participants were asked to answer the dichotomous question: Do you intend to purchase beer in the next 30 days? And in the last 30 days, did you drink beer? Response categories were "yes" (1) or "no" (0). This method is considered as measuring the actual behaviors recommended by past studies (Gordon, Harris, Mackintosh, & Moodie, 2011; Pinsky, Jundi, Sanches, Zaleski, Laranjeira, & Caetano, 2010).

The independent variables in this study are the ten integrated marketing communications tools including 1) mass media advertising 2) outdoor advertising, 3) in-store media advertising, 4) public relations, 5) personal selling, 6) sponsorship, 7) sales promotion, 8) online marketing, 9) direct marketing, and 10) event marketing. They were measured using 5-point rating scale to assess the frequency of exposures (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = always). Questions in this part were adapted from the past studies (Cousins & Kypri, 2008; Fielder, Donovan, & Ouschan, 2009; Gentry et al., 2011; Pasch et al., 2007; Kuo et al., 2003; Hoof, Noordenburg, & Jong, 2008; Workman, 2004; Dubihlela, 2011; Thamarangsi, 2009; Huckle et al., 2008; Pinsky et al., 2010; Davies, 2009; Jones, 2010; Jiang & Ling, 2011; Griffiths & Casswell, 2010; Carroll & Donovan, 2002; Gordon et al., 2011; Gordon, Hastings, & Moodie, 2010; Jernigan, 2009, 2010; Smith & Foxcroft, 2009) A pretest was conducted with forty university students in Bangkok. The reliability analysis by Cronbach's alpha was done to evaluate the internal consistency of the variables that were measured by using summed scale. Therefore, this kind of variables included all independent variables, attitude toward alcoholic beverage consumption, attitude toward alcoholic beverages, and attitude toward alcoholic beverage businesses was tested. The results showed that alpha levels ranged from 0.74 to 0.94. Scores within this range are considered as an adequate indication of internal consistency of the data (Cottrell and McKenzie, 2005).

For statistical analyses, means, standard deviation, and percentage were used in describing characteristics of the study sample. Additionally, inferential statistics was also used in examining the impacts of integrated marketing communications of alcoholic beverage businesses on 3-stage marketing information responses. Both bivariate analysis and multivariate analysis were used in analyzing the data in this study to increase knowledge in this field more deeply. Therefore, simple regression analysis (SRA) and simple logistic regression analysis (SLRA) were used in bivariate analysis at the 0.05 level of statistical significance while multiple regression analysis (MRA) and multiple logistic regression analysis (MLRA) were used in multivariate analysis at the 0.05 level of statistical significance. Before multivariate analysis, checking the problem of multicollinearity was performed by considering all correlations among independent variables. The results as shown in **Table 1** found that all correlations in this study were less than 0.8. This range of correlation coefficients was considered an acceptable level without the problem of multicollinearity (Cooper and Schindler, 2001; Hair *et al*, 1992). Therefore, multivariate analysis can be performed without violating the statistical rules.

## **4. Research Findings**

### **4.1 Characteristics of the study sample**

The sample included 450 undergraduate students, aged 18-24-years-old in nine universities in the Bangkok Metropolitan Area. Most of them were male (53.3%). The average age was 20.71 years (S.D. = 1.24, Max. = 24, Min. = 18). The average income was THB 4,391.33 (S.D. = 1,114.12, Max. = 10,000, Min. = 2,000). The sample studied in the fourth year in the highest proportion (36.4%).

### **4.2 Bivariate analysis**

Simple regression analysis (SRA) was performed to investigate the causal relations between each independent variable and each dependent variable in the cognitive stage and the affective stage while simple logistic regression analysis (SLRA) was performed to investigate the causal relations between each independent variable and each dependent variable in the behavioral stage. The results found that exposures of all alcohol marketing communications tools affected responses in all dependent variables as shown in **Table 2**. The findings can be concluded that all alcohol marketing communications tools affected all 3-stage responses (a cognitive stage, an affective stage, and a behavioral stage) among Thai youth in Bangkok. Besides, all causal relations also have a positive direction. They clearly show that the higher the youths expose alcohol marketing communications tools, the higher they tend to recall alcohol brand names, to have good attitudes toward alcohol consumption, alcoholic beverages, alcohol businesses, and to have alcohol purchase intention and alcohol consumption.

### **4.3 Multivariate analysis**

Multiple regression analysis (MRA) was performed to investigate the causal relations between the group of 10 independent variables and each dependent variable in the cognitive stage and the affective stage while multiple logistic regression analysis (MLRA) was performed to investigate the causal relations between the group of 10 independent variables and each dependent variable in the behavioral stage. These multivariate analyses were performed for building a deeper understanding of the impacts of alcohol marketing communications tools on responses among Thai youth. Because multivariate analysis is the statistical conduction by considering the effects the group of independent variables on the dependent variable simultaneously and by controlling the confounding effects among independent variables efficiently in nature, it gives more beneficial results to prioritize the effects among independent variables for public health planning to restrict alcohol marketing communications tools consecutively. As benefits mentioned before, hence, multivariate analysis was performed in this study. Multiple regression analysis and multiple logistic regression analysis were performed in which all 10 independent variables were entered simultaneously to calculate the overall level of variance accounted for all 3-stage responses (a cognitive stage, an affective stage, and a behavioral stage) among Thai youth in Bangkok. The results can be concluded that the effects of alcohol marketing communications tools on Thai youth varied by each stage of responses as shown in **Table 3**.

In a cognitive stage, there were 3 independent variables affecting awareness significantly after multiple regression analysis (MRA). They were public relations ( $\beta = .325$ ), direct marketing ( $\beta = .299$ ) and mass media advertising ( $\beta = .273$ ) respectively. It showed that youth who exposed these alcohol marketing communications tools more frequently tended to recall alcohol brand names more increasingly. In addition, the variance of awareness explained by all 10 marketing communications tools was 18.1 % (16.3 % adjusted).

In an affective stage, 3 dependent variables were examined in this study: attitude toward alcoholic beverage consumption, attitude toward alcoholic beverages, and attitude toward alcoholic beverage businesses. For attitude toward alcoholic beverage consumption, there were 4 independent variables affecting attitude toward alcoholic beverage consumption significantly after multiple regression analysis (MRA). They were public relations ( $\beta = .422$ ), direct marketing ( $\beta = .354$ ), sponsorship ( $\beta = .213$ ), and online marketing ( $\beta = .184$ ) respectively. In addition, the variance of awareness explained by all 10 marketing communications tools was 40.9 % (39.6 % adjusted). For attitude toward alcoholic beverages, there were 4 independent variables affecting attitude toward alcoholic beverages significantly after multiple regression analysis (MRA). They were public relations ( $\beta = .424$ ), direct marketing ( $\beta = .421$ ), online marketing ( $\beta = .320$ ), and sponsorship ( $\beta = .251$ ) respectively. In addition, the variance of awareness explained by all 10 marketing communications tools was 39.9 % (38.5 % adjusted). For attitude toward alcoholic beverage businesses, there were 5 independent variables affecting attitude toward alcoholic beverage businesses significantly after multiple regression analysis (MRA). They were public relations ( $\beta = .387$ ), direct marketing ( $\beta = .365$ ), sales promotion ( $\beta = .335$ ), sponsorship ( $\beta = .271$ ), and event marketing ( $\beta = .239$ ). In addition, the variance of awareness explained by all 10 marketing communications tools was 28.4 % (26.8 % adjusted). These results showed that youth who exposed these alcohol marketing communications tools more frequently tended to have more supportive attitudes toward alcoholic beverage consumption, alcoholic beverages, and alcoholic beverage businesses.

In a behavioral stage, 2 dependent variables were examined in this study: purchase intention to alcoholic beverages and alcohol consumption behavior. For purchase intention to alcoholic beverages, there were 2 independent variables affecting purchase intention to alcoholic beverages significantly after multiple logistic regression analysis (MLRA). They were sales promotion (Odd Ratio [OR] = 2.209) and event marketing (Odd Ratio [OR] = 1.691). In addition, the variance of awareness explained by all 10 marketing communications tools was 18.7 % (Nagelkerke  $R^2 = .187$ ). For alcohol consumption behavior, there were 2 independent variables affecting alcohol consumption behavior significantly after multiple logistic regression analysis (MLRA). They were sales promotion (Odd Ratio [OR] = 2.368) and direct marketing (Odd Ratio [OR] = 1.854). In addition, the variance of awareness explained by all 10 marketing communication tools was 17.9 % (Nagelkerke  $R^2 = .179$ ). These results showed that youth who exposed these alcohol marketing communications tools more frequently had more probabilities to purchase alcoholic beverages and to consume alcoholic beverages.

### **5. Discussions and Implications**

In conclusion, the results found that alcohol marketing communications affected all 3-stage responses among Thai undergraduate youth in Bangkok. However, the effect sizes of each marketing communication tool varied by each stage of responses and by level of analysis (bivariate analysis or multivariate analysis) as presented before. These results were consistent with previous studies (Cousins & Kypri, 2008; Fielder et al., 2009; Jernigan & Ross, 2010; Smith & Foxcroft, 2009; Gordon et al., 2010; Jernigan, 2009, 2010; Jiang & Ling, 2011; Gentry et al., 2011; Pasch et al., 2007; Gordon et al., 2011; Hoof et al., 2008; Workman, 2004; Dubihlela, 2011; Thamarangsi, 2009; Huckle et al., 2008; Jackson et al., 2000; Meier, 2010; Davies, 2009; Jones, 2010; McCreanor et al., 2005a; McCreanor et al., 2005b; Carroll & Donovan, 2002; Belch & Belch, 2004; Kuo et al., 2003; Pinsky et al., 2010; Jackson et al., 2000; Griffiths & Casswell, 2010). They supported and indicated that alcohol marketing communications affected responses at a cognitive stage, an affective stage, and a behavioral stage among youth. In other words, youth who exposed alcohol marketing communications tools more frequently tended to recall alcohol brand names, to have supportive attitudes toward alcohol consumption, alcoholic beverages, and alcohol businesses, and to purchase and consume alcohol more increasingly.

For implications, evidences from this study suggest that alcohol advertising and other alcohol promotions to young people in Thailand should be more limited. Currently, Thailand has a law that controls alcoholic beverages directly. It was Alcohol Control Act B.E. 2551 [2008] that has enacted since 14 February 2008. It introduced a number of new restrictions on alcoholic beverages. The Act provides for the designation of alcohol-free zones, restrictions on the methods for selling alcohol, and limits on advertising for alcoholic products. The consumption and sale of alcohol are prohibited in the alcohol-free zones. Such zones include temples or other places where religious rites are performed, medical and public health establishments, drug stores licensed to sell medication, governmental and educational settings, public parks, and oil and gasoline stations. The Act also prohibits the use of price discounts, as well as other sales promotions, to persuade consumption.

Moreover, the Act prohibits advertisements that include an image of the alcoholic beverage itself or its container, name, mark, or in a way that is meant to induce others to consume such alcoholic beverage. These limits appear to apply to all forms of advertising, including television, cinema, newspapers, magazines, and billboards. However, the Act contains an exception for advertisements that give information or creative knowledge unrelated to the alcoholic beverage, provided that such advertisements do not carry images of the actual product or its container. Nevertheless, the scope of this exception is not entirely clear, and it is hoped that ministerial regulations will provide further guidance. For example, Section 3, the section of defining the words of “Advertising” and “Marketing Communication”, should cover more marketing communications tools. Currently, in the Act, “Advertising” means an act undertaken by any means to allow the public to see, hear or know the statement for commercial purpose and it also includes marketing communication (Source: Alcohol Control Act B.E. 2551 [2008]). In addition, “Marketing Communication” means activities in various forms with the main objective to sell goods, services or images. It also covers public relations, dissemination of information, sales promotion, product expositions, organization or support of special events, and direct marketing (Source: Alcohol Control Act B.E. 2551 [2008]).

As presented above, it showed that the definitions of “Advertising” and “Marketing Communication” are still not clear and comprehensive. It should cover more marketing communications tools such as personal selling, online marketing, in-store media advertising, out-door media advertising, and sponsorship to include both above-the-line and below-the-line marketing communications more effectively. If the definitions are not clear, the alcohol industry will find ways to circumvent these regulations by using indirect advertising in the controlled media and increasing below-the-line media, such as internet, sponsorship events, and mobile advertisement (Thamarangsi, 2009). As a result, youth will become the most vulnerable group for these risk-threatening scenarios. Besides, section 32 of the Act, the section about control alcohol advertising and promotions, should cover both push strategy (trade-oriented marketing communications) and pull strategy (consumer-oriented marketing communications) to make the enforcement of this Act more effectively. Therefore, the regular review of Thai alcohol law is still needed in a dynamic situation in Thailand. In addition, public health organizations should monitor alcohol marketing communications closely and continuously by developing “Alcohol Marketing Communication Surveillance Systems” (AMCSS). It will help plan on preventing alcohol consumption among youth more efficiently. Besides, public health organizations and other collaborative networks should promote more alcohol counter-marketing campaigns to target Thai youth widely and continuously.

Moreover, using IMC tools to promote alcohol counter-marketing campaigns is necessary to boost the impacts of communication campaigns. While the interventions of public health organizations and other collaborative networks go on, the alcohol industry sector should also have self regulations in the form of code of ethics or code of conduct in alcohol marketing communications. Furthermore, any related persons including family, friends, educational institution administrators, community leaders, health practitioners, or even national policy makers should recognize the problem and know roles in preventing alcohol marketing communications exposures among Thai youth. If all interventions presented above were effectively mobilized, they would lead to several desired outputs: alcohol accessibility among youth could be decreased, alcohol advertising and promotions could be more limited, and anti-alcohol campaigns could be widely promoted. As a result, the short-term outcomes expected would be changes in awareness, knowledge, skills, and attitude. Then, anti-alcohol norms will increase in the intermediate term. Finally, the long-term outcomes expected include reduced alcohol use, reduced prevalence of alcohol use, reduced alcohol-related problems, and, subsequently, reduced alcohol-related morbidity and mortality. If all parts of Thai societies collaborate with one another, the prevention of alcohol use among Thai youth will succeed effectively.

This study has at least two limitations to note. First, this research was limited by the sampling area being only in Bangkok. This would reduce the generalizability of the findings. Future research may need to be broadened to get the picture of the whole country more representatively. The second limitation was because the measures were self-reported; the respondents may have underreported their alcohol marketing communications exposures, possibly because of shame and guilt. However, the anonymous nature of responses in this study reduces the likelihood of such biased responses. Despite of these limitations, the main strength of the present study was the analysis of the effects of alcohol integrated marketing communications (IMC) on all 3-stage responses (a cognitive stage, an affective stage, and a behavioral stage) among Thai youth comprehensively.

Thus, the results of this study provide a better and deeper understanding of the impacts of alcohol IMC among this young group in Thailand. For further research, study of alcohol marketing communications among trades both on-premises and off-premises distribution is still needed. Besides, using other research methodologies to investigate the impacts of alcohol IMC tools on youth such as true or randomized experiments, quasi or non-randomized experiment, econometric, consumer ethnographic research, longitudinal analysis both in the form of trend analysis and in the form of cohort study is strongly recommended. Lastly, research and development (R&D) of Alcohol Marketing Communications Surveillance Systems (AMCSS) both in national level and in community level should be urgently conducted for preventing alcohol consumption among youth more effectively.

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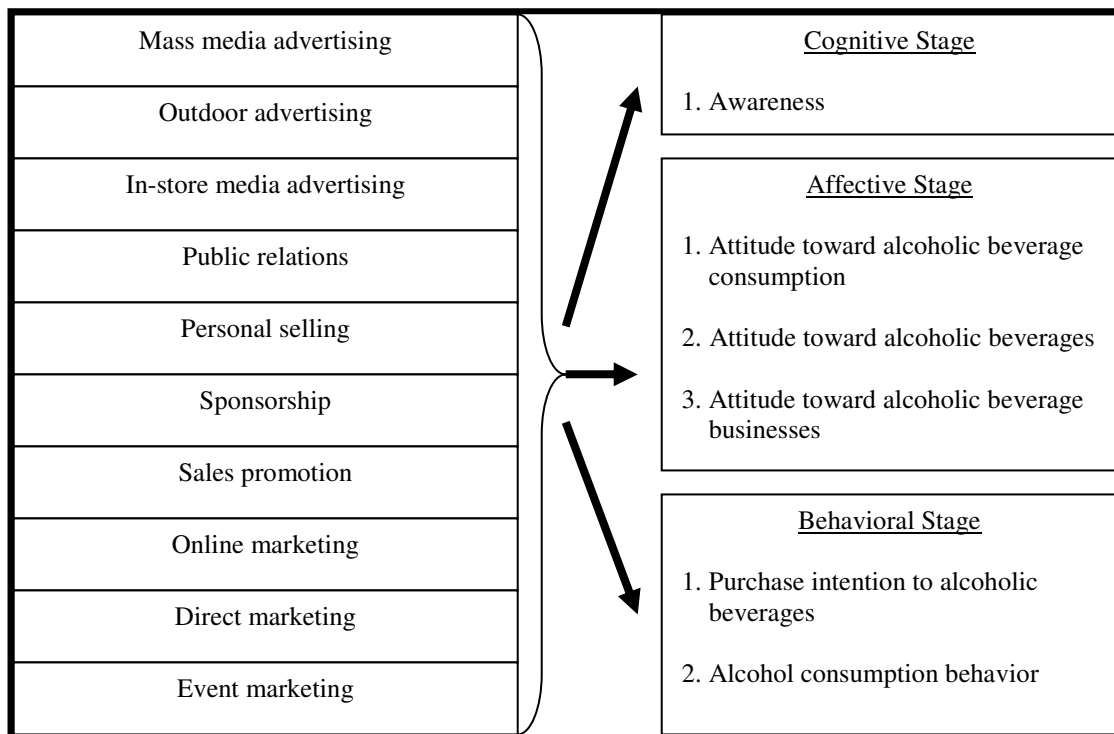
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**Figure1. Conceptual Framework**



**Table 1: Correlations Matrix among independent variables**

Variables	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
V1	1.00									
V2	.528**	1.00								
V3	.566**	.600**	1.00							
V4	.569**	.641**	.533**	1.00						
V5	.552**	.573**	.594**	.578**	1.00					
V6	.529**	.525**	.521**	.545**	.515**	1.00				
V7	.573**	.612**	.622**	.578**	.603**	.554**	1.00			
V8	.564**	.589**	.583**	.545**	.572**	.524**	.612**	1.00		
V9	.525**	.577**	.555**	.530**	.512**	.599**	.553**	.586**	1.00	
V10	.519**	.613**	.573**	.521**	.572**	.548**	.532**	.565**	.506**	1.00

Note: 1. V1 = Mass media advertising, V2 = Outdoor advertising, V3 = In-store media advertising, V4 = Public relations, V5 = Personal selling, V6 = Sponsorship, V7 = Sales promotion, V8 = Online marketing, V9 = Direct marketing, V10 = Event marketing  
 2. \*\* = .01 level of statistical significance

**Table 2: The standardized coefficients (Beta) and odd ratio (OR) to show the effects of alcohol marketing communications tools on three-stage responses among Thai youth by bivariate analysis**

IMC Tools (Independent Variables)	Three-stage Responses (Dependent Variables)					
	Cognitive Stage (Beta)	Affective Stage (Beta)			Behavioral Stage (Odd Ratio)	
	Awareness	Attitude toward alcoholic beverage consumption	Attitude toward alcoholic beverages	Attitude toward alcoholic beverage businesses	Purchase intention to alcoholic beverages	Alcohol consumption behavior
1. Mass media advertising	.278**	.316**	.254**	.148**	1.575*	1.476*
2. Outdoor advertising,	.235**	.393**	.332**	.218**	1.739**	1.714**
3. In-store media advertising,	.132**	.327**	.212**	.098*	2.202**	1.705**
4. Public relations	.333**	.593**	.539**	.415**	2.339**	2.225**
5. Personal selling	.190**	.498**	.432**	.320**	2.510**	2.253**
6. Sponsorship	.122*	.523**	.256**	.150**	2.521**	1.986**
7.Sales promotion	.242**	.367**	.440**	.327**	2.742**	2.443**
8. Online marketing	.232**	.522**	.441**	.309**	2.624**	2.161**
9. Direct marketing	.295**	.573**	.517**	.378**	2.310**	2.325**
10.Event marketing	.111*	.440**	.329**	.213**	2.650**	2.094**

Note : 1. The figures in the columns of cognitive stage and affective stage are the standardized coefficients (Beta)  
 2. The figures in the columns of behavioral stage are odd ratio (OR)  
 3. \* = .05 level of statistical significance and \*\* = .01 level of statistical significance

**Table 3: The standardized coefficients (Beta) and odd ratio (OR) to show the effects of alcohol marketing communications tools on three-stage responses among Thai youth by multivariate analysis**

IMC Tools (Independent Variables)	Three-stage Responses (Dependent Variables)					
	Cognitive Stage (Beta)	Affective Stage (Beta)			Behavioral Stage (Odd Ratio)	
	Awareness	Attitude toward alcoholic beverage consumption	Attitude toward alcoholic beverages	Attitude toward alcoholic beverage businesses	Purchase intention to alcoholic beverages	Alcohol consumption behavior
1. Mass media advertising	.273*	n.s.	n.s.	n.s.	n.s.	n.s.
2. Outdoor advertising,	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
3. In-store media advertising,	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
4. Public relations	.325**	.422**	.424**	.387**	n.s.	n.s.
5. Personal selling	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
6. Sponsorship	n.s.	.213**	.251**	.271*	n.s.	n.s.
7.Sales promotion	n.s.	n.s.	n.s.	.335**	2.209*	2.368*
8. Online marketing	n.s.	.184*	.320**	n.s.	n.s.	n.s.
9. Direct marketing	.299**	.354**	.421**	.365**	n.s.	1.854*
10.Event marketing	n.s.	n.s.	n.s.	.239*	1.691*	n.s.
R <sup>2</sup>	.181	.409	.399	.284		
Pseudo R <sup>2</sup> (Nagelkerke R <sup>2</sup> )					.187	.179

Note : 1. The figures in the columns of cognitive stage and affective stage are the standardized coefficients (Beta)  
 2. The figures in the columns of behavioral stage are odd ratio (OR)  
 3. \* = .05 level of statistical significance and \*\* = .01 level of statistical significance  
 4. n.s. = not significant