



Case study of a successful internet advertising strategy in Hong Kong: a portal for teenagers

Internet
advertising
strategy

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Abstract

Purpose – To identify key success factors related to internet advertising, in the specific case of a portal directed at a teenage audience in Hong Kong; to derive a generally applicable formula for measuring the effectiveness of internet advertising.

Design/methodology/approach – Proposes a framework for advertising effectiveness that includes traditional objective measures (click-through rates), subjective measures applied by advertisers, and seasonality corrections. Derives a mathematical formula for measurement of effectiveness. Extracts components from ten banner advertising campaigns at one web site between January 2001 and May 2002, and analyses them by means of proprietary data-mining rule-induction software. Selects two rules from the several generated, on the basis of confidence levels.

Findings – Finds that, in the case example studied: small interactive games and free gifts deliver the highest brand impression after normalization of the banner click-through rate; revenue is significantly affected by local cultural and seasonal factors; “media-rich” design is an important factor in attracting the target audience to click on a banner. Notes the importance of countering the natural variability of click-through rates, and proposes a variety of design add-ons to stabilise them.

Research limitations/implications – The study relates to a very specific case example of internet advertising in one special administrative area of China. Caution is therefore indicated in applying the proposed model and formula or the related communication strategies more generally. Future research should investigate the conversion of mouse-clicks to sales.

Practical implications – Since, the cost to internet users of switching from one site to another is almost zero, competition for audiences is particularly severe, and planned marketing communication strategies essential to effective performance. In particular, continuing uncertainty about the cause-effect link to sales threatens the revenue stream for firms that rely heavily on internet advertising. It is vital that such advertisers keep abreast of relevant research, such as the case study reported here.

Originality/value – The proposed formula for measurement of effectiveness is original in combining objective and subjective measures of effectiveness. The general principles underpinning strategic conclusions drawn in this particular situation could be selectively applied by planners of internet advertising campaigns for other products and services to other target audiences.

Keywords Advertising media, Internet, Marketing strategy, Youth, Hong Kong

Paper type Research paper



Introduction

The ability of the internet to deliver and obtain information in a flexible, effective manner at relatively low costs is very attractive. However, not many research projects have focused on how young people use the internet and the effects on the time spent with other media activities. In this study of teenagers' use of the internet in Hong Kong,

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the primary objectives were to discover the major sources of effectiveness of banner ads and the major factors that lead to the success of an advertising campaign.

The internet provides a new medium for breaking down the traditional boundaries of media advertising. The research reported here focuses on “banner ads” in particular. Two of the key features that distinguish those from traditional forms of media advertising are control and interaction. Clawson (1993) found that consumers looked for control, convenience and customisation in their use of banner ads. Park *et al.* (1997) argued that consumers primarily search information on the internet to satiate desire or curiosity, and to achieve a positive goal. Rubin (1994) stated that “communication behaviour including media selection and use, is goal-directed, purposive, and motivated”. In the process model of Katz *et al.* (Edelstein, 1989), the emphasis is on the social and psychological origins leading to expectation of rewards, which causes a person to select sources that will, in turn, give satisfaction. Yoon (2003) provides an experimental approach to understanding the effectiveness of banner ads in Korea. The results showed that respondents wanted to use banner ads for “maintaining social relationships” “curiosity” “practical reasons” and “two-way communication” and to “rest and pass time”. They also demonstrated that image was significantly more effective than text in banner advertising. Wen and Maddox (2003) studied the effectiveness of web advertising in China and found a high click-through rate among users, which was a significant predictor for banner recall. They found that banner exposure improved Chinese users’ brand recall, changed their attitude towards the brand, and increased their purchase decisions.

These studies suggest that banner ads provide an interesting area of research, with an instrumental orientation that accommodates selectivity, intentionality and involvement of media consumers. Internet usage is increasing significantly in the Asian region. The total number of users in China, Korea and Hong Kong reached 103, 30 and 4 million, respectively, in 2006, of whom a significant portion are teenagers (CNNIC, 2006). The figure for Hong Kong represents 57 per cent of the total population, showing that the scope for further increase in internet usage there is high.

Web advertising for teenagers in Hong Kong

Teenagers are often described as being heavy users of media, greatly influenced by media images, and therefore, an appealing market for advertisers and marketers. However, selection of any particular medium by teenagers varies as a function of the limitations of each medium and the gratifications sought. Young people make active choices about their media they use according to their personalities, socialization needs, and personal identification. According to Arnett (2000), they already use the internet as a conduit for social stimulation. In a study attitude towards web advertising by Brackett and Carr (2001), American college students predicted that the web would overtake television as the most valuable source of information for the future. Though the number of single parent families increased from 2.3 per cent in 1991 to 3.7 per cent in 2001 (Government of Hong Kong, 2001), leading to a situation in which teenagers became a target market for household goods, special care is called for in this particular subset because research has also shown that they are sceptical about advertising and more apt to recognise emotional advertising appeals than the previous generation (Manglebury and Bristol, 2000).

The interactivity of the internet provides teenagers with an opportunity to communicate directly with advertisers. It combines several qualities of each medium (text, sound, and visual effects) in a way that was not possible before. Chat rooms and newsgroups are said to be replacing traditional conversation among young people. The ability of the internet to deliver and obtain information in a flexible, effective manner at relatively low costs is very attractive. However, few research projects have focused on how teenagers use the internet, on the time spent with other media activities, or on its ability to fulfil interpersonal communication needs. Such information would of course be a valuable input to advertisers' media planning decisions. In Turkey, Calisir (2003) conducted an in-depth study on the perceived position of the web as an advertising medium compared with other media, from the perspective of young consumers. The results showed that this group perceived the web to be the best medium for guiding action and the most reliable source of information.

Therefore, to provide useful intelligence for advertisers' media-selection strategies, the study reported here investigated the effectiveness of the advertising campaigns for a portal directed at teenagers in Hong Kong.

Yes.com.hk

In 1996, Yes Communication Ltd, publisher of the popular teenager magazine *YES!*, recognising the internet as an attractive medium of information disclosure and a potential lucrative market on its own, launched a subsidiary responsible for development of a companion web site: yes.com.hk. The success and popularity of the magazine, with a weekly circulation of about 92,000, was taken as sound proof that the market dedicated to teenagers was real and profitable.

In this study, yes.com.hk was chosen as the vehicle for a detailed case study of the effectiveness of the internet as a targeted advertising medium because it is the most popular portal among teenagers in Hong Kong. The parent company has built contact with the roughly 900,000 inhabitants of Hong Kong aged between 10 and 19 through *YES!*, which is on sale in every newspaper and magazine outlet there. The average daily hit rate of the web site is 2 million, comparable to such large mainstream portals as hongkong.com. The number of active registered users is about 288,000 with a male to female ratio of 55:45.

In 2006, Yes Communication charges advertisers a fixed monthly rate to display banner ads. All banners at the yes.com.hk site are sold on a "run-of-site" basis, independent of the content within which they are embedded. On occasion, they can be linked to editorials covering products linked to the advertiser's, in the manner of press "advertorials". A special package is available, combining print advertisements in *YES!* with banner ads, targeted at advertisers who may be sceptical about internet advertising.

Pricing and effectiveness measurement

Three pricing and measurement models are commonly used for buying and selling banner advertising: exposure-based cost-per-thousand; interaction-based click-through rate; an outcome-based pricing model, in which advertisers pay for deliverables such as enquires and purchases. The price of banners at the yes.com.hk site is mainly a fixed fee for a given period of time, negotiated on the basis of cost per thousand exposures. Because of strong competition, the company is investigating other models that are more directly related to performance.

Cost-per-thousand is considered by many advertisers to offer a higher degree of accountability than other criteria (Hoffman and Novak, 2000; Zeff and Aronson, 1999). This preference seems to be based on three pragmatic considerations: first, a lack of uniform measurement and auditing standards relating to such performance-based measures as click-through rates; second, publishers' resistance to performance measures, because cost-per-thousand is directly comparable to standard practice in print media; third, the argument that charging on the basis of exposures better reflects the traditional responsibility of the publishers to deliver opportunities-to-see (Zeff and Aronson, 1999).

However, a study by Shen (2002) found that advertising agencies favoured interaction and performance metrics, some 86 per cent reporting that they used click-through rates for measuring advertising effectiveness, and only half claiming to use such exposure-based criteria as cost-per-thousand. Like most advertising agencies and media owners in the western world, Yes Communication would like to develop more effective strategies for evaluating the effectiveness of advertising campaigns. However, by default, click-through rate is used in this study as the basis for evaluating the performance of an advertising campaign.

A specific problem associated with measuring click-through rates is the use of proxy-servers within a company. Because all the teenage internet users in this study access the web through the major internet service providers in Hong Kong, this particular limitation does not affect the results.

Research methodology

Our research goal is to study the factors that contribute to the success of advertising campaigns. The adoption of successful advertising planning will very likely help a company to achieve profitability. At the operational level, a sound strategic plan should lead to one of the following:

- increase in the value of the advertising service, as a basis for increase revenue from the advertising rate;
- reduction of the seasonal factors affecting advertising revenues; and
- increase in page traffic, making the site more appealing to potential advertisers.

The case study reported here, therefore, aims to identify success factors in advertising campaigns for client advertisers. Promotion of those to potential advertisers has the potential to increase the probability of success of a campaign. An improving success rate can strengthen the brand name, allowing yes.com.hk to distinguish itself from other internet web sites in Hong Kong.

The measurement of success in advertising campaigns is a popular topic among academics and practitioners. However, most previous research falls short in terms of evidence and discussions on merits and demerits of various measures. In Day's (1997) model for monitoring web-site effectiveness, the discussion is focused mainly on strategy and design. While Dholakia and Regos (1998) identified hit rate as the most effective measure, Goodwin (1999) added brand tracking measures to conventional click through and cost per impression data. There is a rise in the importance of marketing accountability and marketing metrics for internet advertising (Ambler, 2000), and there are research opportunities in identifying how client marketers are evaluating its effectiveness. In addition to the various research

studies of performance measures as evaluated by consumers or expert “viewers” there is a need to address the success factors identified by client marketers.

A study by Lace (2004) reveals that there are clear differences by the client industry sector in the use of the new media and attitudes towards them. Clients who spend more on internet advertising are those who feel competent at judging their agencies’ cost effectiveness and measure internet advertising activities effectively. To address these issues, this study develops a framework to account for advertising effectiveness that takes into account both click-through rates and advertising effectiveness assessed by the client. It collects the top ten banner ad campaigns at yes.com.hk from January 2001 to May 2002 (Figure 1) and extracts the components of each promotion for analysis (Table I). Measurement has been divided into a subjective measurement (V_s) evaluated by the client advertiser and an objective measurement (V_o). For each advertising campaign, the objective of each campaign is defined and the measures identified that can be quantified as a measure of success identified by the client. The values of V_s after each campaign are then evaluated.

The value of V_o is obtained from the following formula expressing the success of a campaign:

$$V_o = \frac{C_n}{\max(C_n)} 10$$

where C_n denotes the normalized banner click-through rate and is calculated by:

$$C_n = \frac{\sum_t C_t \cdot S_t}{\Delta t C_y}$$



Figure 1.
Selected top ten banners

Table I.
Average click-through
rates of top 10 banners

Company	Product	Duration (days)	Avg CTR (per cent)	V_s	V_o	V	Success?
Alcon	Eye-drop	30	2.6	9	10.00	9.40	Yes
Otsuka Pharmaceutical	Pocari Sweat	180	1.9	9	7.91	8.56	Yes
Netvigator	Netvigator.com	30	2.3	8.5	7.48	8.09	Yes
Warners Music	CD + VCD	10	2.1	9	8.08	8.03	Yes
CSL	Pre-paid SIM card	30	1.8	8.5	6.92	7.87	Yes
Nestle	Maxibon chocolate	30	1.6	8	6.15	7.26	Yes
Konica	Film	30	1.5	8	5.77	7.11	Yes
Heng Lung	Grand Plaza	7	2.2	6	9.69	6.88	No
Hallmark	Soft toys	30	2.2	5	9.61	6.85	No
Red Earth	Make-up products	30	1.3	4	5.00	4.40	No

Where C_t denotes the average click-through rate of day t , t the ad exposure duration in days, C_y the general average click through rate of the year S_t the seasonal compensation factor. Both the values V_s , V_o are normalized within a scale of 0-10. The success degree V is then computed as follows:

$$V = 0.6V_s + 0.4V_o$$

In this study, a weight of 0.6 is assigned for V_s to derive the overall effective measurement V . In calculating V_o , it is important to consider the seasonal fluctuations, because the time that teenagers spend on the internet depends very much on special events and study breaks. In Tables II and Figure 2, it can be seen that there are a number of periods with high click-through rates. There are also low-traffic periods corresponding to examination periods, when teenagers do not have enough spare time to spend with an entertainment site like yes.com.hk. The high-traffic periods for yes.com.hk are February, April, June, July, August and December. Low traffic occurs in January, May, October and November.

Table II.
Seasonal compensation
factor

Month/year	Click-through rate (per cent)	Seasonal compensation factor
February-2001	1.25	1.344
March-2001	1.3	1.292
April-2001	1.42	1.183
May-2001	0.8	2.100
June-2001	1.54	1.091
July-2001	1.65	1.018
August-2001	1.68	1.000
September-2001	1.1	1.527
October-2001	0.9	1.867
November-2001	0.66	2.545
December-2001	1.59	1.057
January-2002	0.9	1.867
February-2002	1.24	1.355
March-2002	1.31	1.282
April-2002	1.42	1.183

Note: $C_y = 1.233$ (from February-2001 to April-2002)

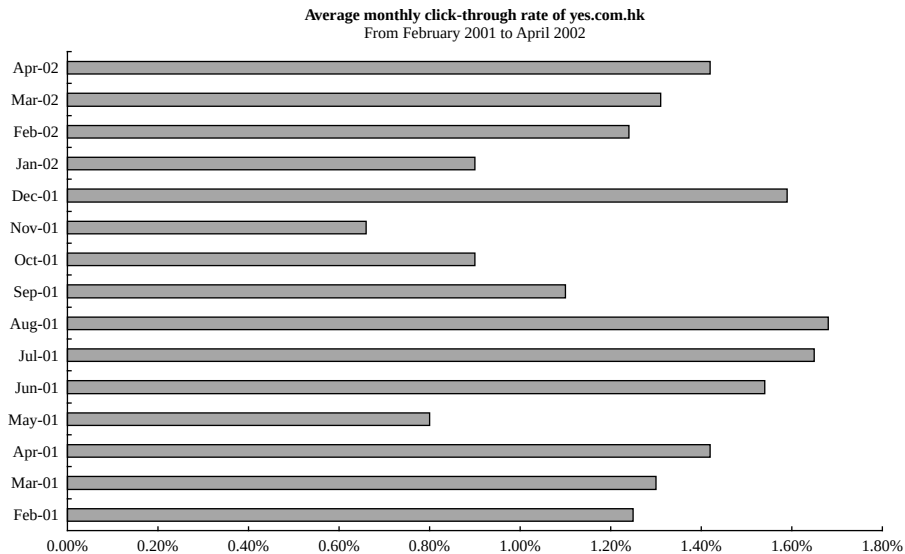


Figure 2.
Average click-through
rate of yes.com.hk

Data analysis

A banner click represents an active and positive acknowledgment of having viewed an ad and at least a momentary desire to further investigate the marketing message, which is one step beyond simple “eyeball” measurements and can be easily traced. Therefore, click-through is used in this study as an objective measurement of banner advertisement effectiveness. The measurement of success by direct comparison of the click-through rates in different periods would be unfair, and a seasonal compensation factor is introduced to make the comparisons more meaningful. By analysing the click-through rates for yes.com.hk, it is possible to derive the measurements for seasonal fluctuations in traffic due to examination periods and summer vacation. The proposed model provides an effective means of calculating the success factor values. By considering the success factor values, it is possible to determine whether an advertising campaign is effective or not.

Data mining techniques have been used to identify the attributes that contribute to the success of an advertising campaign. In the various techniques for data analysis and data visualization, users have to identify trends and cross-correlations. These are commonly identified as passive techniques. New developments in machine intelligence provide active techniques that actively support the discovery of new patterns. In these, the users specify a business goal, and rule induction-algorithms “discover” factors that contribute to the goal and consider all factors if necessary. The result is a decision procedure which, given the values for all the relevant input factors, provides forecasts for business goals. The application of data-mining algorithms provides techniques for finding useful patterns in the business data. The active varieties automatically generate associations between the various factors and present the results in the form of rules.

In this study, calculated success degree values are fed the values, along with chosen factors, into the Clementine data-mining tool for analysis (www.spss.com/clementine). Most of the many rules extracted by the “rule induction” tool proved to be irrelevant, because the confidence level was too low. The two most relevant rules are:

Rule 1. Free gifts = Yes and Celebrities = No and Banner Design = Good = > Success = Yes

Rule 2. Game = Yes = > Success = Yes

The results shown in Table III imply that good banner designs contribute significantly to the success of a campaign. According to Baltas (2003), the size of the banner, its layout, and short and concise messages are factors that contribute to effectiveness. The results also suggest that the presence of a small online game is important to the success of the advertising campaign. In other words, interactivity of a banner advertisement is an important factor. Previous studies have found that many internet users spend their time playing video games online (Fattah and Paul, 2002), which has led marketers to launch a new marketing format, "advergames" that merges games with advertisements (Mack, 2004). Games engage users for long periods of time, immersing them in an environment where they can develop an affinity for the brand. Rather than merely watching the action, "advergame" consumers actually become part of the action: a powerful combination of interactivity for the user and control for the advertiser. Related forms of online branded entertainment have been increasing in recent years, and studies have shown that spending on them is continuing to grow (Raney *et al.*, 2003). "Advergames" can also be used to gather valuable consumer information, players being required to submit e-mail addresses in order to register for prizes.

Offering free gifts is the next important factor. However, to be effective, these must be of some value to users. Although a local advertiser offered a 10 per cent discount and free make-up products, the overall end result was not satisfactory, because most customers enjoyed a 20 per cent discount with their personal cards and the free products were not up to the current fashion trend. In other words, vertical integration is necessary in such marketing campaigns.

Banner design is also an essential factor in attracting visitors to click on a web site. Even when a user does not click on a banner, anything that can capture attention contributes to brand awareness.

Company	Game	Free gifts	Cele-brities	Banner design	V	Success?
Alcon	No	No	No	Good	9.40	Yes
Otsuka Pharmaceutical	Yes	No	Yes	Good	8.56	Yes
Netvigator	No	No	Yes	Average	8.09	Yes
Warners Music	Yes	Yes	No	Good	8.03	Yes
CSL	No	Yes	No	Good	7.87	Yes
Nestle	Yes	No	No	Good	7.26	Yes
Konica	No	Yes	No	Good	7.11	Yes
Heng Lung	No	Yes	No	Average	6.88	No
Hallmark	No	No	No	Good	6.85	No
Red Earth	No	Yes	Yes	Average	4.40	No

Notes: Game = availability of an online game after banner click; free gifts = free gifts offered with the campaign; celebrities = the use of stars, idols and famous celebrities in the ad; banner design = the quality of the banner ad design; criteria for a good banner design: vivid colours; attractive figures or graphics; legible fonts

Table III.
Source data used for rule
extraction

Addressing the needs of teenagers

It is also important that advertising campaigns directed at teenagers address their needs. A study by Ferle *et al.* (2000) found that teenagers used the internet to fulfil such needs as these, in decreasing order of importance:

- fun and games;
- academic materials and homework;
- music;
- socialization (travel, making friends);
- health; and
- shopping.

The “New GenerAsians” youth survey by A C Nielsen found that direct online chat tools such as ICQ and MSN messenger were most popular with teenagers in Hong Kong, which means that their socialization needs should be ranked in a relatively high position. The portal, yes.com.hk has been successful in addressing the need for “fun and games”. Internet music broadcasting was tried, but the high costs of licensing music have deterred the company from continuing that activity.

The web site currently has a section for making friends called “Love matching” but its scope is rather limited. There is still large room for improvement to fill the gaps in needs 2, 4, 5 and 6 above.

Discussion of results

The study reported here has identified the most effective internet banner-advertising strategy suggested by a case study of yes.com.hk. An effective strategy can proceed from different perspectives. It may:

- focus on users’ needs, diversifying the content to improve the loyalty of users;
- focus on advertisers’ needs, providing more flexibility and variety in advertising packages and introducing new pricing schemes;
- minimise revenue fluctuations, by varying strategy between peak and non-peak periods; and
- thereby increase the success rate of advertising campaigns.

For the last point, several critical attributes have been identified. They include Games, Free Gifts, Celebrities, Banner Design, selected from the top ten banners from January 2001 until May 2002.

The research is important in that it focuses on young consumers highly committed to the internet environment. The success of banner advertising campaigns currently being investigated will prove the legitimacy of the advertising model for yes.com.hk. This investigation, plus close monitoring of the advertising campaigns with customers, can provide valuable general information for analysis of successful advertising campaigns. Table IV reports seven successful cases-in-point (out of ten cases).

By referring to the evaluations of successful advertising campaigns, yes.com.hk and any other intending user of internet advertising in the Hong Kong market (and perhaps beyond) can develop advertising strategies targeted to the needs of teenagers.

Table IV.
Analysis of top 10
advertising campaign
and the overall result

Company/product	Banner ad charge (HK\$)	Avg CTR (per cent)/ Cost per click	Avg impressions per day	Duration	Campaign objective	Overall result
Alcom/Eye-drop	8,000	2.6/0.31	33,333	April 2002-May 2002 (1 month)	Sampling	Successful. Collected about 8,000 visitors who wanted to get a free sample. Over 3,000 visitors left their name and address for the first three days of the promotion
Otsuka Pharmaceutical/Pocari Sweat	10,000 per month	1.9/0.26	66,666	March 2001-September 2001 (6 months)	Branding, reposition in youth market	Successful in almost every aspect. Got an average 200,000 of page views per month of their mini web site
Netvigator/Netvigator.com	20,000 per month	2.3/0.58	50,000	August 2001-September 2001 (1 month)	Increasing traffic	Successful. Click-through rate and sales of the portal web site increased
Warners Music/CD + VCD	8,000	2.1/0.38	100,000	April 2002 (10 days)	Branding	Successful. Collected about 3,000 email addresses. (Visitors left their addresses to receive notification of how to get a free gift, after playing an online game)
PCCW/Pre-paid SIM card	8,000	1.8/0.44	33,333	April 2002-May 2002 (1 month)	Branding and increasing sales	Successful. Increase in sales of pre-paid SIM card

(continued)

Company/product	Banner ad charge (HK\$)	Avg CTR (per cent)/ Cost per click	Avg impressions per day	Duration	Campaign objective	Overall result
Nestle/Maxibon chocolate	15,000	1.6/0.63	50,000	April 2002-May 2001 (1 month)	Increasing sales	Successful. Collected info about 1,000 participants which was more effective than that of off-line <i>YES!</i> print ad. (It could only collect info of about 100 participants)
Konica/Film	8,000	1.5/0.53	47,619	April 2002 (3 weeks)	Branding and increasing sales	Successful. Increase in branding and high volume of sales due to the redemption of bags at a special price
Heng Lung/Grand Plaza	8,000	2.2/0.36	142,857	February 2002 (1 week)	Increasing business volume of the shopping mall	Failure. Unable to increase visitor count to Grand Plaza
Hallmark/Soft toys	10,000	2.2/0.45	33,333	February 2001-March 2001 (1 month)	Increasing brand awareness and sales	Success in branding but failure in increasing sales
Red Earth/Make-up products	50,000	1.3/1.28	100,000	August 2001-September 2001 (1 month)	Increasing sales	Failure. Unable to increase sales

Table IV.

Conclusions and recommendations

This paper has presented an analysis of success factors for internet advertising, with particular reference to an advertising campaigns for the online presence of a well established youth-market magazine in Hong Kong. Using data mining techniques, it has identified and evaluated the key success factors. The major findings are as that:

- small interactive games and free gifts can provide the highest brand impression after normalization of the banner click-through rate;
- revenue can be influenced by seasonal factors such as examination and summer vacation periods; and
- media-rich design is important to attract teenagers to click on a banner.

Since, unstable click-through are very likely affect the revenue of any company undertaking a venture such as yes.com.hk it is important to find ways to combat low rates during particular periods. In this case study, it is general knowledge that many teenagers in Hong Kong place higher priority on studying than on entertainment. That suggested addition to the site of new sections offering exam tips, study counselling, online search facilities that can help students to solve their problems in assignments and exams. There might also be chat rooms and private e-mail boxes with online advisers to respond to questions of health and school related problems. The internet has a distinctive advantage of allowing anonymity, making it easier for this target audience to voice potentially embarrassing questions. It could also be effective to shift design strategy between the usual emotional branding images that emphasize fun and entertainment and rational branding that enforces a utilitarian view of the site. Such planned adaptations have strong potential to increase the attractiveness of the site and hence user loyalty.

In the online world, as the cost of switching from one site to another is almost zero, and any web site that appeals to the same target audience is a competitor. Planned internet marketing strategies are, therefore, the means to compete effectively. The general principles of customer orientation underpinning these strategies could be selective applied by the planners of advertising campaigns for other products and services to other target audiences.

Future directions for research include a study of the conversion from clicks to sales. The lack of standards in measuring this will jeopardize the revenue stream for dotcoms who rely heavily on internet advertising to generate revenue. It is important that advertisers such as yes.com.hk stay abreast of research on internet advertising, in order to survive in the highly competitive internet environment.

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