

---

## **THE EFFECT OF VISUAL SOURCES AND TIME PRESSURE ON ENVIRONMENTAL PERCEPTION AND ATTRACTIVENESS THROUGH THE ADVERTISEMENT**

Nhu-Y Tran, Iván Alvarez León  
CETT, School of Tourism, Hospitality and Gastronomy  
tny1002@gmail.com, ial79arq@yahoo.com

Article history:

First Received: 08 October 2018

Final Proof Received: 12 November 2018

**Abstract:** The main objective of this study was to capture and analyses the role of visual resources and time pressure as they affect customer behaviour in the hospitality industry. This study examined effective reactions on booking time and type based on vacation advertisements. The research method had a 3 x2 within-subjects design with 6 experimental conditions obtained by crossing the levels of two independent variables: 1) Time pressure (i.e., exact date, number of days left and counting-down timing); 2) Visual source (i.e., video and picture). The study designed a self-report questionnaire based on 8 socio-demographic items and three conceptual elements, such as the facility quality, environmental features and promotional attractiveness. This research provided data regarding the differences in visual source and time pressure in marketing promotion. It showed that videos had more impact on customer perceptions regarding the facility quality and environmental features. The study outlines the value of marketing strategies in building content and successful design in differentiating a resort from the competition and offering a positive experience (low investment yielding high return) for millennial.

**Keywords:** Environmental perception, time pressure, resort, attractiveness of advertising

### **INTRODUCTION**

The growth rate of Internet users worldwide from 2000 to 2016 was 900.4%, and in Asia it was 1,467.9%. According to the statistics of Business Monitor International, in 2014, Vietnam is a country with high Internet growth rate, up to 9% per year and ranks fifteenth in the world. In Vietnam, the percentage of tourists using the Internet to purchase new travel services accounts for 34%, which is mainly in the form of book-direct services. In addition, the domestic online travel market focuses on foreign tourism enterprises. The dominance of online travel agents abroad has had a positive impact on the country's tourism, especially in attracting international visitors.

Poon (1993) and Sheldon (1997) claimed that technology and tourism have been attached and developed together from many years (Buhalis & Law, 2008). Technology has changed tourism, not only in company behaviour, but also in customer behaviours. Social media and smartphones appeared to have enriched these online channels and allowed traveller updates from primary products to mass information (Huang et al., 2017; Xiang and Gretzel, 2010). Social media is a considered an

abundant, equitable and responsive tool for customers. Social media, including Facebook, Twitter, Instagram, YouTube, blogs, etc. are being used widely and play an essential role in providing information to customers. Sago (2010) pointed out that although used in wide range of age groups, social media is used significantly by the millennial generation (1980s as starting birth years to early 2000s as ending birth years) who are young and depend heavily on technology.

The use of images and video clips enhances information and improves consumer interaction by making it tangible, close, lively and reliable. The customer is able to experience the journey without actual travelling to a place (Buhalis & Law, 2008). From the hotel's perspective, images and videos of their amenities and rooms can be browsed by customers easily through social media. Huang (2017) stated that many travellers nowadays rely solely on the Internet to prepare their trips: from their initial search for information to booking reservations to paying. During travel time, the Internet and smartphones are essential tools for travellers. Xiang & Gretzel (2010) pointed out that travellers record their experiences by capturing

photos of their trips, tagging friends and reviewing hotels on personal pages such as Facebook, which reaches a specific audience.

Based on the use of technology, businesses focus on creating promotions as well as events that will attract attention. Hotel and airlines usually offer special rates at specific times and dates to encourage customer purchase. The limited-time factor plays an important role because it allows a business to determine whether a promotion was successful. Ben Zur & Breznitz (1981) said that the pressure of time in promotions allows customers to receive accurate information and process the transaction quickly.

## LITERATURE REVIEW

### *Customer aspect*

Technology has changed customer behaviour in a way that allows them to have a surprising experience (Koo et al., 2016). In 2011–2012, social networks allowed a nearly 20% growth based on the consumers ability to approach and manipulate their travel by buying tickets and booking rooms online (eMarketer, 2012). From the very beginning, customers are able to plan their trips by finding secure and reliable information through multiple channels like websites and blogs (Huang et al., 2017; Raab et al., 2016). The impact of highly-development search engines and networks allow customers to plan and experience their travels more quickly and easily (Buhalis & Law, 2008). As Xiang & Gretzel (2010) reported, smart tourism technology makes transaction-oriented services more efficient in both reserving and paying.

Raab et al. (2016) pointed out that customers have many tools (such as Yelp.com and Tripadvisor.com) for rating and reviewing services, platforms (such as Cruise Critic) for sharing travelling experiences, and more advanced forums (like Flyertalk.com) for loyalty programs. In this way, consumers can have an objective overview that is trustworthy and reliable because it comes from other customers and is not subjective as it would be if provided solely by businesses. From 2000 to 2010, hotel rooms were overwhelmingly reserved through online distribution and online travel agencies (OTA), which pushed the growth of the Internet travel market by 445% globally (Nusair et al., 2010).

### *Company perspective and technologies in tourism marketing*

Go and Williams (1993), O'Connor & Frew (2004) and Yu & Law (2000) emphasized that business marketing and distribution are dominated by the technology revolution (Buhalis & Law, 2008). Businesses have looked to smart technology for new concepts and rebuilt its base economy to make it more attractive (Koo et al., 2016). Sigala (2015) argued that business cannot have a long-term

relationship with customers based only on direct sales; integrated communication channels (email, social media, virtual communities...) are also necessary.

Dev & Olsen (2000) emphasized that hoteliers nowadays have advantages in garnering customer preference, taste and behaviour because of website identification, which allows them to calculate the number and frequency of targeted customer visits. That information has reduced challenges for the marketing segment, saving time in targeting customers and allowing them to create marketing strategies more quickly than before (Rishi & Gaur, 2012). All information is now spread widely on both hotel websites and social networks that make up the online marketing strategy. They are also linked together to interact with customers easily and quickly (Virginia Phelan et al., 2013). For instance, a hotel's Facebook page may have hyperlinks to its website, twitter, email, Instagram and YouTube.

The appearance of mobile apps helps customers access social networks and reach targeted activities (Wang et al., 2012). Instead of searching cultural and heritage sites, nowadays customers can search for information in one place regarding where to stay, how to get there, the perfect time for visiting, top attractions, and special activities taking place at that time (events and festivals). They even suggest complete vacation plans along with attractive services offered (Koo et al., 2016). 'Visit a City', for example, provides full information needed to make the most of a city visit including top attractions, locations, admission rates, operating hours and transportation details. They can also suggest itineraries for particular lengths of visits (one day, two days, etc.) and other trips and excursions.

Although it is clear that new media has many advantages, like accessibility, marketers do not want to use it as their only tool; they also use some traditional media. Along with apparent advantages, social media and blogs carry unpredicted threats if the company is passive in receiving customer comments (Rishi & Gaur, 2012).

### *Travel approached by image and video*

In the last few years, video marketing has become increasingly popular as a new direction in the field of advertising. Video marketing is probably no longer a strange term, but not every marketer is aware of its importance. Aldebert et al. (2011) pointed out that tourism requires a combination of nature, space and time to become visual and cognitive. Research by comScore, an online marketing and measurement company, shows online video content such as blogs, articles and images make up 87% of content. It is worth mentioning that 96% of users click on video links and 90% of them decide whether to buy something after watching the video. According to a survey

conducted by global research firm Kanta Millward Brown in June 2017, Vietnam is among the world's leading countries for video viewership on smartphones. Specifically, Vietnam, along with Saudi Arabia and Hong Kong (China), have seen smartphone videos accounting for 32% of total video viewed on TV, desktop and other devices.

Video was used along with text and other content as a tool for customer visits to hotel websites (Jeong & Choi, 2005). A study by Jeong & Choi (2005) about the effect of diverse content images available on hotel websites on customer attitude and behaviour, suggested that content and realistic pictures on hotel websites strongly impacted customer perceptions and their product purchasing behaviour. Customers perceive and appraise image and video clips through six different elements: user interface, aesthetics, customization, assurance, flexibility and virtual human interaction.

#### ***Advantages of video marketing in tourism and the hotel industry***

Video is becoming one of the most effective forms of storytelling. It conveys elements that a hotel cannot communicate through traditional content, such as facial expressions, voices and music. Video is also the easiest way to evoke powerful emotions. Video clips give customers an opportunity to have an overview about hotel environment and available services before booking and help limit perceived risks (Murphy et al., 1996; Reichheld & Scheffer, 2000; Tifferet & Vilnai-Yavetz, 2014). In addition to creating a creative 'filmmaker', employees can also become excellent 'actors' in short video hotel introductions. A staff with an enthusiastic, thoughtful and professional presence in the video make the guests feel secure. But hotels need to be sure to focus on features such as beautiful location, remarkable amenities or exceptional staff in order to make the best impression. With image ads, text will be very limited. The video allows the hotel to comfortably tell its story, building and guiding the emotions of the audience, helping viewers remember what is different about that particular hotel. Touching customer emotions is very important in branding and letting users evaluate and remember the brand.

With text, it's hard to measure the number of users that hotel content actually reaches, but videos contain analytics that provide play counts, watch time, and the social interaction it receives. Hotels can use this as a way to determine what is working and what is not. Marketing managers can continue to improve video content as well as ROI (return of investment). For an online marketer, it is important to determine how much profit can be made from an initial investment, and the goal is increasing the ROI as much as possible. Advertisers must ask whether the money they invest in marketing brings in more

customers. It is a fact that video advertising has a powerful, positive impact on ROI, and it is a great way to stand out from the many text-based marketing efforts in the hospitality industry. If done right, a hotel can reach new customers, increase website traffic and share hotel stories in an effective and engaging way.

#### ***Time constrain in marketing strategy***

There are two kinds of products—utilitarian and hedonic. Khan, Dhar & Wertenbroch (2005) explained that utilitarian products are usually known as instruments and are especially good at attention-grabbing functions (Myers & Shocker, 1981). Customer can easily evaluate utilitarian products systematically (Hirschman & Holbrook, 1982; Ratchford, 1987; Thompson & Hamilton 2006). On the contrary, hedonic products offer fun, pleasure, excitement and adventure, which are processed unsystematically providing an overview and self-discovery (Ratchford, 1987). Since people travel to relax and enjoy experiences, Hirschman & Holbrook (1982) noted that tourism and hospitality have been mostly considered as hedonic products that require different sales and promotional methods.

Yelkur & Nêveda DaCosta (2001) claimed that websites are widely used in hotel marketing because they are concrete, visual and clearly formatted. On a website, the customer can find many types of materials and content presented in various ways that allow him/her to find information easily, saving time and money. Payne, Bettman & Johnson (1988) suggested that marketing strategies should be created based on attributes and how these attributes are processed. The strategy would have higher efficiency when put under time pressure, which acts as a catalyst. Eisenbeiss et al. (2015) found that effective promotion, attractive discount levels and severe time pressure are keys for success, pushing customers to respond. 'Limited time' offers can be compared to the 'special offers' or 'special programs', but this technique uses the exact phrase 'time limited' to describe buying products and services. It can incorporate several other sales techniques, such as scarcity, by referring to the amounts of residuals for sale. Coupons also can be offered on a 'limited time' basis to entice people who may be hesitant to make a purchase.

There are two kinds of advertising—expressive advertising and information advertising. Expressive advertising works to help customers decide immediately in a short time because too much information may confuse them or make them hesitate in processing information. Similarly, information advertising is effective for customers who need much time for consideration (Sirgy & Su, 2000). Consumers often have two states—desire ('I have to get this right away') and delay ('For later, I

do not need it now'). Therefore, to motivate customers to buy products faster and bring more efficiency, marketers should certainly not let the delay state occupy the minds of customers. Instead, they should use the desire state to urge shoppers to buy quickly.

Along with price promotion, flash sales, which like a discount events, only open for a certain period of time, Public Relations (P.R.), aggressive advertising, give buyers the feeling of waiting, challenging and conquering, are becoming more and more popular marketing strategies. Both of these strategies put customers into a time constraint and make them feel an urgent motivation to purchase (Svenson & Maule, 1993). Marketing managers have grasped the basic psychology of customer behaviour in which cost savings, such as promotions, discounts or free gifts, build a relationship and stimulate the customer to purchase goods or services (Grewal et al., 1998). Marketing managers can increase interaction with customers by encouraging them to share promotional messages or pictures with friends and family to receive a reward. Chandon, Wansink & Laurent (2000) emphasized that the discount level plays a crucial role in deciding whether the promotion is successful or not. An attractive discount, for example 50%, has a higher impact on customer psychology than a low one.

When the customer making a decision dominated by time pressure, it is necessary for retailers to know which category plays a decisive role in customer decision making in order to achieve the most effective promotion (Dhar & Nowlis, 1999). Despite the fact that price discounts are very attractive, time limitations are necessary to create motivation for customer decision making. Silayoi & Speece (2004) agreed that visual elements such as images, videos, numbers, colours, etc. have more impact on customers under a time constraint and less power when time is unlimited. A sense of urgency motivates people to act fast to solve the problem immediately, rather than thinking and considering. In the face of increasing consumer insecurity, retailers create urgent situations that completely bypass the thought and consideration behaviours. In particular, in the buying decision process, consumers are more likely to be sensitive to the feeling of losing than gaining something. Retailers will take advantage of this psychological factor to deliver the right sales message, for example, 'There's only 30 minutes left for the promotion!' or 'Only 1 product left. Quick hands buy any!' Dhar & Nowlis (1999) also suggested that unique features are key for these types of promotions. Usually, the unique features are considered unimportant and can be ignored, but under time pressure, they become a dominant

element. Shen & Bigsby (2013) suggested that advertising messages have to be clear and concrete so that the customer can easily process and rapidly respond without misunderstanding the message.

Most people, especially young people, are often afraid to of missing something (fear of missing out). Limiting the incentives of time or quantity will evoke this very instinctive fear, causing people not to delay in seizing the opportunity. The countdown timer on the sales page can be used to motivate customers by showing that the offer period is running out. Marketers can also emphasize that they only discount X products. Scarcity will motivate people to move quicker. O'Neill & Palmer (2001) reported that perception of customers about the service at the moment they make decision should be taken to an account by marketing managers since their survey results proved that the determinant element was not after consumption but was the experience during the buying steps. By offering an attractive reward package, marketers are able to motivate and encourage customers to purchase and increase their expectation in product or services functions (Lewis, 2004).

In summary, the existing literature focuses mostly on the content of offers but does not pay great attention to gain attraction. Additionally, our study responds to the call of extending the investigation regarding the perception as well as perceived ability of traveller when dealing with promotions. The results advance the understanding of the impact of technology in terms of media tools and time on customer behaviours. Thus, we would propose the following hypotheses:

Hypothesis 1 (H1): The effect of a video as visual source in advertising of a tourist resort will increase the perception of facility quality, environmental features, and promotional attractiveness in potential customers.

Hypothesis 2 (H2): The effect of counting-down timing as a time pressure mechanism in advertising for a tourist resort will increase the perception of facility quality, environmental features, and promotional attractiveness in potential customers.

Hypothesis 3 (H3): An interaction effect between a video and counting-down timing as time pressure mechanism in an advertising of a tourist resort will increase perception of facility quality, environmental features, and promotional attractiveness in potential customers.

## **METHOD**

### ***Participants and study design***

The study recruited participants from Vietnam and they were contacted in May of 2018 by a convenience sample of the researcher's personal networks. Researchers estimated almost 1000 people checked the post's link on their social media;

however, only 191 individuals clicked on it. All responses were confidential, there was no compensation for participation and participation was strictly voluntary.

The majority (nearly 70%) of participants were young people between 19 and 23 years old who were students, and 20% were people between 24 and 28 years old who had just finished studying in university and began working. In contrast, 5% were from 29 to 33 years old, and 5% were from 34 to 38 years old. In addition, there were no participants under 18 years of age, and none were over 39. In general, almost participants were 'millennials' who perfectly fit with the objective profiles (Table 1).

**Table 1. Profile of Respondents**

Characteristic	Sample profile	
	(M)	(SD)
Gender	56.8% (female) 43.2% (male)	-
Age group	24 years	3.87
Income per month	450\$-550\$	-
Frequency of leisure travel in a year	4.48 times	2.26
Frequency of stay in a resort in a year	2.52 times	1.60

Source: Authors

The study was an experiment utilizing two visual sources and three-time pressure mechanisms in its design.

**Measures: Self-report evaluations**

Once the participants clicked on the link, the following introduction message appeared:

Welcome to the Resort Study.

This study leads you through a simulated advertisement experience at a resort in Vietnam and asks you to answer some questions. This should take approximately 15 minutes to complete.

We do not anticipate any risks to you if you participate in this study other than those encountered in day-to-day life. All of your responses are completely anonymous, so you may answer freely and openly. Your participation will help us to better understand the phenomenon we are investigating. You must be 18 years or older to participate.

Taking part in this study is completely voluntary. You are free to withdraw at any point during the study by simply closing your browser.

After reading the introduction, participants proceeded to the self-report questions based on eight socio-demographic items, and three conceptual items, such as facility quality, environmental features and promotional

attractiveness items of the two visual sources according the time pressure element.

The dependent variables were based on the three conceptual elements, the questionnaire developed 17 items; seven items measure quality of accommodation responses of each stimulus. Two responses were scaled on a 7-point scale (from Common=1 to Exclusive=7 and Basic=1 to Glamorous=7).

The environmental perception scale included six items. Responses were scaled on 7-point scale (from Strongly agree=1 to Strongly disagree=7). Items included: (a) This accommodation has a fantastic visual image; (b) This visual image helps me have an overview of the accommodation services and activities; (c) This accommodation has enough facilities for my vacation needs; (d) This accommodation has adequate services for my vacation needs; (e) This image has truthful information about the accommodation; and (f) I will feel pleased and proud if I stay at this accommodation.

The promotional attractiveness scale included four items. Responses were scaled on 7-points scale (from Strongly agree=1 to Strongly disagree=7). Items included: (a) The discount of this advertisement is convenient; (b) This advertisement pushes me to book the accommodation; (c) I would book this accommodation immediately because of restrictions offered on the discount; (d) I would feel that I am losing an opportunity if I do not book it with this discount conditions.

Finally, the eight socio-demographic items: (a) How familiar do you feel with luxury hotels?; (b) How likely are you to stay in a resort that has a favourable discount; (c) How many times a year do you take leisure trips?; (d) How many times a year do you stay in a villa; (e) How many times a year do you stay in a luxury hotel or resort?; (f) What is your age?; (g) What gender do you identify with?; (h) What is your monthly income?. This information was useful, in order to carry out statistical analysis.

The survey aimed to evaluate the visual stimuli and the impact of time pressure in promotional advertising (exact date, number of days left and a counting-down mechanism). The date selected in the stimuli was 10 June 2018. Six randomized controlled surveys provided by Qualtrics Platform were distributed to participants in order to reduce bias in independent variables.

**Stimulus**

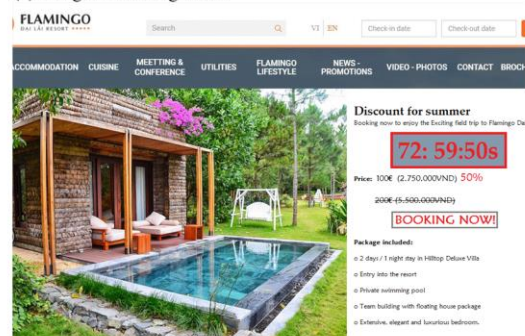
Researchers evaluated six simulated promotional advertisements for a real tourist resort located in Vietnam, named Flamingo Dai Lái Resort. Stimuli show two visuals for each of the three archetypal time-pressure elements (exact date, number of days left and counting-down timing). The independent variable of the visual source was

treated in three stimuli with same picture of the tourist resort, and the time pressure variable with a video of same resort shown in a picture. The video was 90 seconds in duration and the contents show the outside and inside environmental features of the resort. The independent variable (time pressure) was treated according to the three forms described previously, and it was shown inside a red box within the advertisement. The simulated promotion website has in the six stimuli the same header,

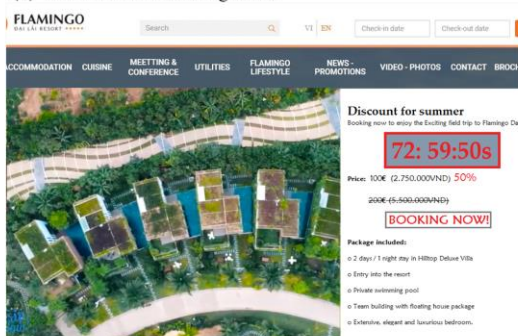
promotional contents and layout (Figure 1). The counting-down variable was installed within the advertisement as a clock in order to recreate a real promotional experience.

After watching the promotional advertisement, the participant was asked to complete a self-report questionnaire; responses were directly recorded by the Qualtrics Platform.

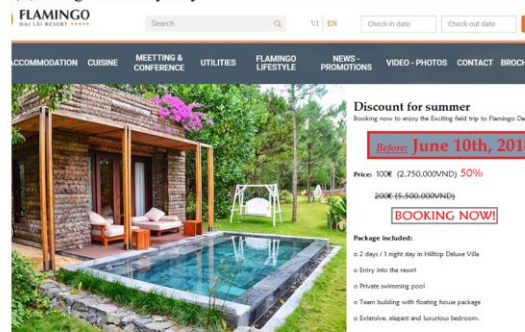
(a) Image. Counting down



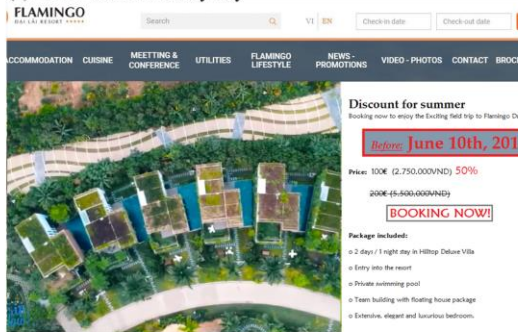
(d) Video frame. Counting down



(b) Image. Exactly day



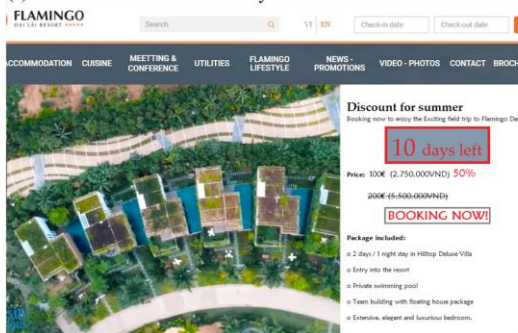
(e) Video frame. Exactly day



(c) Image. Number of days left



(f) Video frame. Number of days left



**Figure 1. Stimuli of Independent Variables (Visual Source and Time Pressure)**

**Stimulus**

The statistical calculation of the data obtained was applied using in SPSS, the multi-factor ANOVA one-way analysis, which allows for obtaining significant differences of the independent

variable in each of the responses of dependent variables.

**RESULTS AND DISCUSSION**

According to our hypotheses, results were described to support main effect of visual source and time pressure in Hypotheses 1 and 2. Moreover, interaction result between independent variables was show in Hypothesis 3.

Despite being instructed to indicate preferences and perceptions of the tourist resort, many subjects indicated only preferences in one of the six simulated advertisements. Participants who did not finish the six stimuli often completed the first stimulus randomly. Researchers intuit this was due to the likeness between stimuli, so participants could have decided not to continue. Accordingly, the number of participants may vary in each hypothesis' results. This variation did not compromise the study's ability to identify whether visual sources and time-pressure situations impacted preferences and perceptions of tourist resort advertising.

**Hypothesis 1 (H1): The effect of a video as visual source in advertising of a tourist resort will increase the perception of facility quality, environmental features, and promotional attractiveness in potential customers**

H1 was supported; video marketing strongly impacts the young generation, which transfers more trustworthy information than image marketing. As predicted, a significant effect of visual source was obtained. In terms of facility quality perception, the video resulted in a more favourable response to the subject ( $F(1, 45) = 6.24; p < .05$ ) than image source ( $M = 5.64; SD = 1.93$ ). The video source also transmitted more informational perceptions about environmental features of accommodation ( $F(1, 45) = 5.32; p < .05$ ) than did the image ( $M = 5.06, SD = 1.18$ ). The main reason is that in the picture, subjects just can see the view from the outside and not the furniture and design inside the accommodation, which was an upscale resort. The video not only showed the facilities inside the villa (bedroom, bathroom, living room, garden and pool), it also showed other activities and entertainment within resort campus (bar and coffee, lounge, sightseeing, spa, kayak, etc.). In terms of promotional attractiveness, the visual source was not significant in the advertisement. However, subjects rated higher attractiveness in video source ( $M = 5.63, SD = 0.53$ ) than in the image ( $M = 5.59, SD = 0.65$ ) (Table 2).

**Table 2. Main Effect of Visual Source on Facility Quality, Environmental Features and Promotional Attractiveness**

Subject perceptions	Source	M	(SD)	(p)
Facility quality	Image	5.64	1.93	0.018**
	Video	6.24	2.46	

Environmental features	Image	5.06	1.18	0.048**
	Video	5.32	1.36	
Promotional attractiveness	Image	5.59	0.65	0.520
	Video	5.63	0.53	

Coefficients are statistically different from zero at the following levels: \*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$   
Source: Authors

**Hypothesis 2 (H2): The effect of counting-down timing as a time pressure mechanism in advertising for a tourist resort will increase the perception of facility quality, environmental features, and promotional attractiveness in potential customers**

H2 hypothesised that displayed time through a counting-down mechanism in the sale promotion controlled customer behaviour and perception regarding product and pushed up purchase action. Although, H2 was not supported by results, the mean of responses showed that means of number of days had more impact than counting down, and the exact date had the least impact.

Though the prediction was not verified, counting down had more difference than in perception of facility quality ( $M = 5.83, SD = 2.12$ ) compared to exact date ( $M = 5.82, SD = 2.05$ ). The information about environmental features were also evaluated as richer under counting-down effect ( $M = 5.20, SD = 5.18$ ). However, in terms of promotion attractiveness, the counting-down element had less effect ( $M = 5.63, SD = 0.67$ ) than date ( $M = 5.66, SD = 0.65$ ) (Table 3).

**Table 3. Main Effect of Between Counting Down (CD) and Date (D) on Facility Quality, Environmental Features and Promotional Attractiveness**

	Time	M	Comparison (SD)	(p)
Facility quality	CD	5.83	2.12	0.955
	Date	5.82	2.05	
Environmental features	CD	5.20	1.19	0.728
	Date	5.18	1.18	
Promotional attractiveness	CD	5.63	0.67	0.750
	Date	5.66	0.65	

Coefficients are statistically different from zero at the following levels: \*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$   
Source: Authors

When comparing counting down and number of days, counting down ( $M = 5.90, SD = 2.17$ ) presented less information about facility quality than number of days ( $M = 6.01, SD = 2.10$ ). In addition, promotion attractiveness was favourable under number of days ( $M = 5.65, SD = 0.58$ ) display than the counting-down effect ( $M = 5.59, SD = 0.65$ ). Whereas in terms of environmental features, counting down ( $M = 5.20, SD = 1.23$ ) was preferable to number of days ( $M = 5.19, 1.23$ ) (Table 4).

**Table 4. Main Effect of Comparison Between Counting Down (CD) and Number of Days (ND) on Facility Quality, Environmental Features and Promotional Attractiveness**

	Time	M	(SD)	(p)
Facility quality	CD	5.90	2.17	0.401
	ND	6.01	2.10	
Environmental features	CD	5.20	1.23	0.897
	ND	5.19	1.23	
Promotional attractiveness	CD	5.59	0.65	0.290
	ND	5.65	0.58	

Coefficients are statistically different from zero at the following levels: \* p < .1, \*\* p < .05, \*\*\* p < .01  
Source: Authors

Between exact date and number of days, number of days was more effective than exact date in both presenting accommodation qualities, facilities or promotion attractiveness. Especially, perception of facility quality improved significantly under number of days (M = 6.01, SD = 2.10). Participants evaluated number of days (M = 5.65, SD = 0.58) higher than date (M = 5.61, SD = 0.61) in advertisement attractiveness (Table 5).

**Table 5. Main Effect of Comparison Between Date (D) and Number of Days (ND) on Facility Quality, Environmental Features and Promotional Attractiveness**

	Time	M	(SD)	(p)
Facility quality	D	5.90	2.09	0.455
	ND	6.01	2.10	
Environmental features	D	5.17	1.20	0.686
	ND	5.19	1.23	
Promotional attractiveness	D	5.61	0.61	0.584
	ND	5.65	0.58	

Coefficients are statistically different from zero at the following levels: \* p < .1, \*\* p < .05, \*\*\* p < .01  
Source: Authors

**Table 6. Interaction Effect of Visual Source and Time Pressure on Facility Quality, Environmental Features and Promotional Attractiveness**

Source		Counting down	Number of days	Date
		M (SD)	M (SD)	M (SD)
Facility quality	Image	5.57(1.91)	5.59 (2.14)	5.51 (2.20)
	Video	6.06 (2.54)	6.23 (2.61)	6.09 (2.50)
	(p)	<b>p = 0.058*</b>	<b>p = 0.045**</b>	<b>p = 0.035**</b>
Environmental features	Image	4.98 (1.16)	5.10 (1.20)	5.14 (1.22)
	Video	5.40 (1.33)	5.29 (1.44)	5.29 (1.33)
	(p)	<b>p = 0.002**</b>	<b>p = 0.22</b>	<b>p = 0.195</b>
Promotional attractiveness	Image	5.62 (0.71)	5.65 (0.70)	5.69 (0.84)
	Video	5.70 (0.10)	5.72 (0.74)	5.70 (0.72)
	(p)	<b>p = 0.257</b>	<b>p = 0.537</b>	<b>p = 0.904</b>

Coefficients are statistically different from zero at the following levels: \* p < .1, \*\* p < .05, \*\*\* p < .01  
Source: Authors

In general, the present time and number of days was an outstanding effective when compared to counting down and date on the advertisement.

**Hypothesis 3 (H3): An interaction effect between a video and counting-down timing as time pressure mechanism in an advertising of a tourist resort will increase perception of facility quality, environmental features, and promotional attractiveness in potential customers.**

The results confirmed that video and counting down have a strong impact on formulating the perception of facility quality, environmental features and promotional attractiveness.

Under the different types of time promotion, video had more effect on participant decisions than did image. Perception of facility quality was consistently higher in video than images under all three types of time presentation. The counting down video was significantly higher when compared to image (F (1, 54) = 6.06; p = 0.1). Video with number of days remaining counter (F (1, 48) = 6.23; p = 0.05) and date (F (1, 54) = 6.09; p = 0.05) were significantly more effective in the facility quality than image.

With counting-down timing, there were quite significant differences (F (1, 54) = 5.40; p = 0.01) between video and image, which reveals a huge advantage in terms of environmental features. In addition, in three types of time presentations, video had more effect than image.

The research revealed that counting-down timing worked better with video (F (1,54) = 5.40, p = 0.05) compared to image (M = 4.98, SD = 1.16) when expressing the environmental features. Since both video and counting down changed every second, attention was dispersed into two movements at the same time, creating an urgent situation and pushing up booking (Table 6).

**CONCLUSION**

**Research contribution**

This study contributes to the research literature on marketing strategies related to the adoption of

technology and the adaption of time effect. Previous studies focused mostly on the effective of image and video without affect of time pressure. Other marketing strategy research suggested that



constraint in time may push customer to purchase but did not go into depth about the difference between time display. Based on this study, marketers will be able to understand millennial travel behaviour (Sziva & Zoltay, 2016) and their needs and preferences. More importantly, it distinctly differentiated between video and image in perception and information adaptation (Payne, Bettman & Johnson, 1988). Especially, time elements played an important role in psychological behaviour, which impact on customer behaviour as well as their perception about environmental attributes of an accommodation (Silayoi & Speece, 2004).

#### **Managerial implications**

The study adds value to marketing strategies in building content and successfully designing content that will differentiate a resort from the competition, offering a positive experience for young people by offering a low investment with a high return. Hotels and companies need to take into account that the different materials (video and image) and display of time-counting elements can have a significant impact on customer behaviour, especially in the hospitality industry where experience is paramount. For young people, efficiency involves multi-functional promotions that not only offer attractive deals but also display an aesthetic and effective way of processing information.

In addition, the hotel management also could attract and build relationship with customer by encourage them to record video and take photo of every enjoy moment in order to share and give feedback. Koo et al. (2016) noted that travel and tourism organization update their information consecutive and steady in their channels (Twitter, Facebook, YouTube...) that ensure the homogenous, clearly and coherence of the information. Additionally, the spread of information can easily reach potential customer. At the same time, travellers have collected information which are most popular from different available social media through internet (Koo et al., 2016).

In promotion term, the reaction of participant under difference time effect though not significant but to some extent, there were still give marketer some ideas about customer behaviour. Silayoi & Speece, (2004) have done a research about customer behavior when dealing with time constraint and collected some opinion of buyer that time pressure has significant effect when they make decisions. Mostly they do not spend much time in making choice and tend to quickly make decision without carefully considering estimate quality or value of products.

#### **Limitations**

The major limitation in the study is the small sample size. Although, we spread the survey link to

almost 1,000 people, only 20% clicked on it. Significant differences were obtained by 45 respondents in H1, 48 in H2, and 54 in H3. The survey was designed to take no more than 15 minutes, and there was no economic compensation or incentive to subjects. Future researchers could consider increasing participation with incentives and showing one stimulus to each subject, in order to avoid withdrawal of respondents during the survey. However, it is comparable to other studies conducted with millennials and the impact of brand choice under time pressure (Pieters & Warlop, 1999), using search engine for travel purposes (Yusop et al., 2015) or virtual reality in tourism (Giberson, 2017).

#### **Future research directions**

To follow and complement this study in the future, it would be interesting to investigate other variables and physical attributes present in a hotel that are crucial in increasing promotional attractiveness. Such studies should reduce the limitations described previously. One future approach could be based on how an interactive video with 360° views of the tourist facility may change booking behaviour. Another suggestion is that research measure potential customers impact to environmental features and facility quality when independent variables are sound interacting with time and visual source. Finally, a study using virtual reality glasses to compare results with our research would be fascinating. Results from the present and future researches may interest the marketing departments of the hospitality industry in order to address new approaches to promotional strategies focused on customer behaviour.

#### **REFERENCES**

- Aldebert, B., Dang, R.J. & Longhi, C. (2011). Innovation in the tourism industry: The case of Tourism. *Tourism Management*, 32(5), 1204–1213.  
<https://doi.org/10.1016/j.tourman.2010.08.010>
- Ben Zur, H. & Breznitz, S.J. (1981). The effect of time pressure on risky choice behavior. *Acta Psychologica*, 47(2), 89–104.  
[https://doi.org/10.1016/0001-6918\(81\)90001-9](https://doi.org/10.1016/0001-6918(81)90001-9)
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism management*, 29(4), 609–623.  
<https://doi.org/10.1016/j.tourman.2008.01.005>
- Chandon, P., Wansink, B., & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of marketing*, 64(4), 65–81.  
<https://doi.org/10.1509/jmkg.64.4.65.18071>

- Dev, C. S., & Olsen, M. D. (2000). Marketing challenges for the next decade. *Cornell Hotel and Restaurant Administration Quarterly*, 41(1), 41-47. [https://doi.org/10.1016/S0010-8804\(00\)88884-9](https://doi.org/10.1016/S0010-8804(00)88884-9)
- Dhar, R., & Nowlis, S. M. (1999). The effect of time pressure on consumer choice deferral. *Journal of Consumer Research*, 25(4), 369-384. <https://doi.org/10.1086/209545>
- Eisenbeiss, M., Wilken, R., Skiera, B., & Cornelissen, M. (2015). What makes deal-of-the-day promotions really effective? The interplay of discount and time constraint with product type. *International Journal of Research in Marketing*, 32(4), 387-397. <https://doi.org/10.1016/j.ijresmar.2015.05.007>
- eMarketer (2012). Online travel trends in Germany vary by age: Travel is a top ecommerce activity for internet users over 50. <https://www.emarketer.com/Article/Online-Travel-Trends-Germany-Vary-by-Age/1009430>
- Giberson, J. (2017). *Generation Y, virtual reality and tourism*. Tourism Travel and Research Association: Advancing Tourism Research Globally, Graduate Student Colloquium of 2017 TTRA International Conference. 10.
- Go, F.M. and Williams, A.P. (1993). Competing and co-operating in the changing tourism channel system. *Journal of Travel and Tourism Marketing*, 2 (2/3), 229-248.
- Grewal, D., Krishnan, R., Baker, J., & Borin, N. (1998). The effect of store name, brand name and price discounts on consumers' evaluations and purchase intentions. *Journal of retailing*, 74(3), 331-352. [https://doi.org/10.1016/S0022-4359\(99\)80099-2](https://doi.org/10.1016/S0022-4359(99)80099-2)
- Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: emerging concepts, methods and propositions. *Journal of marketing*, 46(3), 92-101. <https://doi.org/10.2307/1251707>
- Huang, C. D., Goo, J., Nam, K., & Yoo, C. W. (2017). Smart tourism technologies in travel planning: The role of exploration and exploitation. *Information & Management*, 54(6), 757-770. <https://doi.org/10.1016/j.im.2016.11.010>
- Jeong, M., & Choi, J. (2005). Effects of picture presentations on customers' behavioral intentions on the web. *Journal of Travel & Tourism Marketing*, 17(2-3), 193-204. [https://doi.org/10.1300/J073v17n02\\_15](https://doi.org/10.1300/J073v17n02_15)
- Khan, U., Dhar, R. & Wertenbroch, K. (2005), in Ratneshwar, S. and Mick, D.M. (Eds.), *Inside consumption: Frontiers of research on consumer motives, goals, and desires*, Routledge, London, UK, 144-165.
- Koo, C., Joun, Y., Han, H., & Chung, N. (2016). A structural model for destination travel intention as a media exposure: belief-desire-intention model perspective. *International Journal of Contemporary Hospitality Management*, 28(7), 1338-1360. <https://doi.org/10.1108/IJCHM-07-2014-0354>
- Lewis, M. (2004). The influence of loyalty programs and short-term promotions on customer retention. *Journal of marketing research*, 41(3), 281-292. <https://doi.org/10.1509/jmkr.41.3.281.35986>
- Murphy, J., Forrest, E. J., Wotring, C. E., & Brymer, R. A. (1996). Hotel management and marketing on the Internet: An analysis of sites and features. *The Cornell Hotel and Restaurant Administration Quarterly*, 37(3), 70-82. [https://doi.org/10.1016/0010-8804\(96\)86817-0](https://doi.org/10.1016/0010-8804(96)86817-0)
- Myers, J. H., & Shocker, A. D. (1981). The nature of product-related attributes. *Research in marketing*, 5(5), 211-236.
- Yusop, N. D. B. M., Zin, M. A. A. B. M., & Kurniawan, I. (2016). The behavior analysis generation Y in using search engine for travel purposes. *The Journal: Tourism and Hospitality Essentials Journal*, 5(2), 911-920.
- Nusair, K., Jin Yoon, H., Naipaul, S., & Parsa, H. G. (2010). Effect of price discount frames and levels on consumers' perceptions in low-end service industries. *International Journal of Contemporary Hospitality Management*, 22(6), 814-835. <https://doi.org/10.1108/09596111011063106>
- O'Connor, P., & Frew, A. J. (2004). An evaluation methodology for hotel electronic channels of distribution. *International journal of hospitality Management*, 23(2), 179-199. <https://doi.org/10.1016/j.ijhm.2003.10.002>
- O'Neill, M., & Palmer, A. (2001). Survey timing and consumer perceptions of service quality: an overview of empirical evidence. *Managing Service Quality: An International Journal*, 11(3), 182-190. <https://doi.org/10.1108/09604520110391351>
- Payne, J. W., Bettman, J. R., & Johnson, E. J. (1988). Adaptive strategy selection in decision making. *Journal of experimental psychology: Learning, Memory, and Cognition*, 14(3), 534. <https://doi.org/10.1037/0278-7393.14.3.534>
- Virginia Phelan, K., Chen, H. T., & Haney, M. (2013). "Like" and "Check-in": how hotels utilize Facebook as an effective marketing tool. *Journal of hospitality and Tourism Technology*, 4(2), 134-154. <https://doi.org/10.1108/JHTT-Jul-2012-0020>
- Poon, A. (1993). *Tourism, technology and competitive strategies*. CAB international. Wallingford, New York.

- Raab, C., Berezan, O., Krishen, A. S., & Tanford, S. (2016). What's in a word? Building program loyalty through social media communication. *Cornell Hospitality Quarterly*, 57(2), 138-149. <https://doi.org/10.1177/1938965515619488>
- Ratchford, B.T. (1987), New insights about the FCB grid, *Journal of Advertising Research*, 27, 24–38.
- Reichheld, F. F. & Schefter, P. (2000). E-loyalty: your secret weapon on the web. *Harvard business review*, 78(4), 105-113.
- Pieters, R., & Warlop, L. (1999). Visual attention during brand choice: The impact of time pressure and task motivation. *International Journal of research in Marketing*, 16(1), 1-16. [https://doi.org/10.1016/S0167-8116\(98\)00022-6](https://doi.org/10.1016/S0167-8116(98)00022-6)
- Rishi, M., & Gaur, S. S. (2012). Emerging sales and marketing challenges in the global hospitality industry: a thematic analysis of customer reviews from the world's top two tourist destinations. *Worldwide Hospitality and Tourism Themes*, 4(2), 131-149. <https://doi.org/10.1108/17554211211217316>
- Sago, B. (2010). The influence of social media message sources on millennial generation consumers. *International Journal of Integrated Marketing Communications*, 2(2), pp. 7–18.
- Sheldon, P. J. (1997). *Tourism information technology*. New York: Cab International.
- Shen, L., & Bigsby, E. (2013). The effects of message features. *The Sage handbook of persuasion: Developments in theory and practice*, 20-35.
- Sigala, T. (2015), Collaborative commerce in tourism: Implications for research and industry, *Current Issues in Tourism*, 20(4), 346–355. <https://doi.org/10.1080/13683500.2014.982522>
- Silayoi, P., & Speece, M. (2004). Packaging and purchase decisions: An exploratory study on the impact of involvement level and time pressure. *British food journal*, 106(8), 607-628. <https://doi.org/10.1108/00070700410553602>
- Sirgy, M. J., & Su, C. (2000). Destination image, self-congruity, and travel behavior: Toward an integrative model. *Journal of Travel Research*, 38(4), 340-352. <https://doi.org/10.1177/004728750003800402>
- Svenson, O. & Maule, A.J. (1993), *Time pressure and stress in human judgment and decision making*, New York: Plenum Press. <https://doi.org/10.1007/978-1-4757-6846-6>
- Sziva, I. & Zoltay, R.A. (2016). *How to catch the critical Generation? – The interests, and travel needs of Generation Y during cultural travels*. Paper presented at Proceedings of TCL2016 Conference, Budapest (pp. 554–564).
- Thompson, D. V., & Hamilton, R. W. (2006). The effects of information processing mode on consumers' responses to comparative advertising. *Journal of Consumer Research*, 32(4), 530-540. <https://doi.org/10.1086/500483>
- Tifferet, S., & Vilnai-Yavetz, I. (2014). Gender differences in Facebook self-presentation: An international randomized study. *Computers in Human Behavior*, 35, 388-399. <https://doi.org/10.1016/j.chb.2014.03.016>
- Wang, X., Yu, C., & Wei, Y. (2012). Social media peer communication and impacts on purchase intentions: A consumer socialization framework. *Journal of interactive marketing*, 26(4), 198-208. <https://doi.org/10.1016/j.intmar.2011.11.004>
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism management*, 31(2), 179-188. <https://doi.org/10.1016/j.tourman.2009.02.016>
- Yelkur, R., & Nêveda DaCosta, M. M. (2001). Differential pricing and segmentation on the Internet: the case of hotels. *Management Decision*, 39(4), 252-262. <https://doi.org/10.1108/00251740110391411>
- Allen, K. L., & Law, R. (2000). *The Application of E-Commerce to Enhance The Competitive Advantages of Hotels In Hong Kong*. In *Information and Communication Technologies in Tourism 2000* (pp. 343-352). Springer, Vienna. [https://doi.org/10.1007/978-3-7091-6291-0\\_31](https://doi.org/10.1007/978-3-7091-6291-0_31)

