Abstract - Previous studies argue that visual elements possess the power of persuasion and contribute in persuading the end users. However, not much attention has been given in assessing the implementation of persuasive techniques in website’s visual design. Based on Cialdini’s six persuasion techniques, this paper reviews the current state of utilising the techniques in tourism website design. Issues related to the lacking of persuasive design are highlighted. This paper also discusses, in the context of tourism, the possible visual cues representing the techniques of reciprocation, commitment and consistency, social proof, liking, authority and scarcity. A comparison is made between information-driven and profit-driven websites. The outcome of the review confirms that the design of tourism websites is mostly focusing on facilitating communication with the web users and emphasis more in providing favourable imagery and information to attract their attention. However, it is discovered that even though most persuasion principles are present, they are still under-utilised. Moreover, credibility remains as a major issue as less evidence of visual elements that emphasis trust can be found in the design. In addition to the reviews and discussion, this paper also presents a conceptual framework of persuasive visual web design.

Keywords - persuasion; tourism; visual design; website design

I. INTRODUCTION

Majority of tourism related information can be found online. Tourism websites have grown from just being a portal to display static information to more complex and complete all-in-one stop solution whereby suitable locations, travel times and dates, best prices, bookings and itineraries can be made with just a few mouse clicks. These websites’ main goals are to advertise and promote destinations, to facilitate communication with customers (visitors and potential travellers), and to reinforce a positive image and brand value [1]. In general, tourism website provides favourable imagery and information, with the aim to persuade and assist customers in making a choice of destination or planning for their trip.

However, the massive amount of tourism information that is available online has lead travellers experiencing difficulties in finding the relevant information [2, 3]. As a result, travellers are driven to make very quick decisions or judgments [4]. A major question arising from this is if there is a way to attract the visitors’ attention, retain them on the site, and influence them to act more sensibly rather than based on quick judgment or impulsive purchasing. The design of a website must be able to attract users’ attention so that they are motivated to make the decision to stay. As technology can be used to influence human behaviour [5], or at least to assist them in making decisions, identifying the techniques to optimise persuasion in an online context may contribute to better results. Designing for persuasion is a possible way to attract users’ attention.

Persuasion is an attempt to change the attitudes or behaviour, or both without using coercion or deception [6, 7]. When the motivation and ability are sufficient, with the correct triggers, visitors may change their behaviour [5], or at least make up their mind to make the decision to select a suitable travel destination. Persuasion theories have been in discussion for quite some time now, as early as 1991, as Aristotle discusses the concept of rhetoric by means of ethos (appeals to credibility), logos (appeals to logic), and pathos (appeals to emotion) [8, 9]. Aristotle defines rhetoric as “the faculty of finding the available means of persuasion” as cited in [8].

Some said that persuasion roots in the advertising domain [10, 11]. Consequently, adaptations of persuasion techniques are evident in most advertisements. Early discussion of persuasion in the domain of interface design can be found in [8]. The article evaluates the use of metaphor from the perspective of rhetorical concept. Once B.J. Fogg started to focus his works in persuasive technology in 1997 that really gets other researchers’ attention about incorporating persuasion in computing [12].

Implementing persuasive techniques in website design will have a positive impact on triggering the visitors’ attention [2, 13]. Yet, what is the current state of persuasive techniques in tourism websites? Which persuasion techniques are mostly used? How frequently and in what form are they being used? As not much guidance can be found for creating attractive website visual designs, experts merely give advice in the form of abstract and general laws [14], which in turn leave web designers to interpret the design cues on their own.
This paper reviews the current state of implementation of persuasive techniques in tourism website design. In this paper, the visual elements refer to the web elements that include plain text, headings, captions, pictures, symbols, and all forms of interaction tools such as text boxes, buttons, links, and icons. Communication tools like live chat room, forums, and social networking are also included.

II. UTILISING CIALDINI’S PERSUASION TECHNIQUES IN TOURISM WEBSITE DESIGN

This paper refers to the well-known persuasion techniques by Cialdini’s [15]. Based on his field observations, Cialdini proposes six persuasion techniques, namely (1) reciprocation, (2) commitment and consistency, (3) social proof, (4) liking, (5) authority, and (6) scarcity. He explains that once persuaded, human may react automatically without conscious thought. The techniques are widely used in many fields, especially in the advertising domain [16]. Given the fact that tourism domain is unique and a high-risk service industry [17], this paper identifies the extent of persuasion techniques used in tourism websites. The next sub-sections briefly described the six abovementioned persuasion principles.

A. Reciprocation

Reciprocation is about giving something or doing a favour to a customer without expecting anything in return. However, in the end, the customer will feel obligated to repay the favour. This situation creates a form of relationship between the site and the customer. In the case of selling, offering an in-store sample can make a customer feels obligated to make a purchase [15, 16, 18]. Commercial and profit based tourism websites may be able to offer complimentary gifts to attract potential customers. In contrast to non-profit websites, since no complimentary gifts can be offered to customers, the reciprocation technique should be addressed in such a way that no expenditure is required.

In [19], Pelaprat and Brown suggest that reciprocation can be designed to offer some kind of recognition to the customers as a gift, and they will offer their time in return. This symbolic gift does not necessarily aims at gaining profit, but more in facilitating a communication with potential customers. A common example is to provide an online forum facility where new customers are allowed to encounter, engage, and be-with the site, which in the end could make possible for them to be recognised as a valued customer of the site. In return, these new customers would offer their loyalty, information or even act as a promoter by sharing information with their families and friends. Likewise, information such as ‘the most visited cities in the world’ or ‘542 things to do in Sydney, Australia’ can be seen as a symbolic gift to customers. In 2011, a research conducted by TRAVELSAT© showed that 32% of travellers claimed they usually sought this kind of information before deciding to travel [20].

B. Commitment and Consistency

Customers are bound to make a decision based on previous commitment and they are consistent with what they think and do [16]. Past actions usually reflect on the next one. For example, a customer has the chance to describe a product criterion. The seller will then present a few suitable products. In return, the customer feels obligated to buy at least one of the offered products. This is due to human having some kind of an obsessive desire to be (and to appear) consistent in what they think and do [15]. Thus, tourism websites should allow customers to request for information, and consequently, persuading them to remain on the site would be much easier. Hence, ‘search’ tool is important to allow customers to seek for much needed information about the destination, attraction, hotel, and flight availability. This information must be properly arranged so that the website can be seen as a one stop solution centre, and no further visit to other website is required.

C. Social Proof

People love to imitate others and when they become uncertain, they will usually take cues from others [15]. Thus, providing evidence of what others are doing and how they do it, can serve as a social proof that it is worth to be imitated, and hence influence the users to repeat the same actions. For example, on Facebook website, users tend to click on the “Like” button when they saw a lot of people liked it. In tourism websites, providing evidence that other people had travelled to interesting places, can lead to persuasion. The message stating that ‘70% of Western Australians has been to the Oprah House in Sydney’ also can lead to persuasion. This technique works better if the person is someone close to the targeted customer. People can be influenced by another of whom they like the most. Reviews and evidences by relatives or friends are proven to be amongst the most important factors that influence the destination of choice. 38% of travellers admit that they mostly listen to other people’s reviews of a destination [20].

D. Liking

Tourism websites must provide favourable and relevant images [2]. Customers usually imagine what a destination is like using bits of information or images that they have viewed online. Once they form a solid expectation of the place, the mental images will then help them decide [21]. In order to assist customers to create positive mental images, a good approach is to design a website that can encourage their liking.

Tangibility is one of the most significant factors of emotional design and helps to increase the level of liking and interest [22]. Effective and well-designed visuals that can be clicked, resized, or manipulated can help form a bond or relationship between the customers and the visual interfaces. Therefore, tourism websites should not only follow the standard of user interface design guidelines, but also improve on the interactivity of the interface in order to improve the website’s persuasiveness. The liking technique can also be
facilitated by providing happy images or messages. An image of a family chatting happily while enjoying their dinner at a riverside restaurant in Bangkok can be a good trigger.

E. Authority

People tend to obey (or copy) authoritative figures, as in [15, 16]. Sources of authority can be generic; it can be a leader of an organization, celebrities, or even materials such as uniform, money or food. In the health domain for example, messages from somebody wearing a doctor’s uniform will be regarded as important. In tourism, celebrities can play their part to promote destinations. Words of a well-known international celebrity chef being at a place with wonderful cuisines can draw much more attention than just an image of an unknown figure. This technique also works even though the celebrity figure is not an expert in the domain. For example, a statement that says ‘Africa is the second home of Brad Pitt and Angelina Jolie’ can increase motivation for some people.

F. Scarcity

Scarcity is one of the most popular techniques used in advertising. Perceived scarcity will generate demand. For example, saying that offers are available for a ‘limited time only’ or ‘limited stock only’ can trigger or instigate customers’ awareness that they must act fast, and hence encourages sales. For a travel agent website, this technique can be easily incorporated into the website design. However, for informational websites with no business ties, designing scarcity would be difficult, unless the information is specific to an event where it is tied to a specific date. For example, to celebrate Queen Elizabeth’s birthday, the event is fixed on the 21st of April. A simple message like ‘now you see it, now you don’t’, once used in Chipsmore’s TV commercial, can also serve as a message to encourage awareness of scarcity.

In summary, reciprocation, commitment and consistency are techniques that can initiate communication and build relationship between websites and the customers. Credibility and confidence can be triggered with authority and social proof techniques. At the same time, liking and scarcity techniques help to trigger consumers’ emotion, interest, or attention.

Even though the persuasion techniques to influence human are fairly discovered by previous researchers, the current state of persuasive visual implementation in the design of tourism website is still not much discussed. Thus, the next section will assess the implementation of persuasive visual design in four well-known tourism websites.

III. EXAMINING THE USE OF PERSUASION TECHNIQUES IN TOURISM WEBSITES

Based on eBizMBA [23] results of the ‘Top 15 Most Popular Travel Websites of January 2013’ (retrieved on 22nd January 2013) that is ranked based on Internet traffic statistic, four websites were examined for the persuasive visual implementation. These websites are categorized into two groups; (1) information-driven and (2) profit-driven. Information-driven websites are the sites that only provide information. The purchasing activities are made by third party websites. In contrast, the purchasing activities for the profit-driven websites are performed within the site themselves. In this paper, only the main page of each site is reviewed as in most cases, first impression of the site usually determines whether the user will stay or leave [4]. All the visual items of each website are listed and categorized according to Cialdini’s persuasion techniques. Judgement is made based on the visibility and evidence of items in each group.

Referring to Table 1, it shows that all of Cialdini’s persuasion techniques are evident in the design of tourism websites. Yet, not all techniques are popular. Regardless of their design goals, all websites have adapted reciprocation, commitment and consistency, and liking into their design. Scarcity turns out to be popular for profit-driven websites, following the examples in product-based advertisement. So far, these websites show no signs of authority and social proof. On the other hand, information-driven websites show limited representation of social proof, and scarcity. It is clear that more work is required to emphasize the use of authority, and social proof since as they were treated as less important, regardless of the websites’ design goals.

Given that Cialdini provides sufficient evidence that the six techniques work well in selling situation as in [15], the evidence that shows that some techniques are not properly in use, raise the question as to why it is not the same? Whereas tourism websites do sell something on the site, even though it is just some travel information. Hence, future works should focus on identifying the visual cues of persuasion that work best on tourism websites. Nevertheless, the literature and the website design reviews indicate that all six persuasion techniques are important and should be significant in the design of persuasive website. Henceforth, the next section proposes and elaborates the conceptual framework for persuasive visual web design.
### TABLE I. PERSUASION TECHNIQUES IN TOURISM WEBSITES
(WEBSITES WERE ACCESSED ON 22/01/2013)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reciprocation</strong></td>
<td>Searching tool to initiate communication (main step).</td>
<td>Information is offered as the page loaded to initiate communication.</td>
</tr>
<tr>
<td></td>
<td>Highlights are positioned on the lower part of the page.</td>
<td>Highlights are positioned at the top-middle.</td>
</tr>
<tr>
<td></td>
<td>Instant personalisation features.</td>
<td>No instant personalisation features.</td>
</tr>
<tr>
<td></td>
<td>The forum is available.</td>
<td>No forum or chat room is available.</td>
</tr>
<tr>
<td><strong>Commitment and consistency</strong></td>
<td>Allow users to search for information. Default choice: Hotel or destination.</td>
<td>Allow users to search for information. Default choice: Destination.</td>
</tr>
<tr>
<td><strong>Social proof</strong></td>
<td>Photo of friends, friends rating and activities (personalised from Facebook or Twitter).</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>Other people: hotel review and photos of tracked location.</td>
<td></td>
</tr>
<tr>
<td><strong>Liking</strong></td>
<td>Interactive design.</td>
<td>Interactive design.</td>
</tr>
<tr>
<td></td>
<td>Limited liking images or captions.</td>
<td>Limited liking images or captions.</td>
</tr>
<tr>
<td><strong>Authority</strong></td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Scarcity</strong></td>
<td>No.</td>
<td>Yes, but limited.</td>
</tr>
<tr>
<td><strong>Reciprocation</strong></td>
<td>Information is offered as the page loaded to initiate communication.</td>
<td>Information is offered as the page loaded to initiate communication.</td>
</tr>
<tr>
<td></td>
<td>Highlights are positioned at the top.</td>
<td>Highlights are positioned at the top.</td>
</tr>
<tr>
<td></td>
<td>No instant personalization features.</td>
<td>No instant personalization features.</td>
</tr>
<tr>
<td></td>
<td>The chat room is available on a different page.</td>
<td>No forum or chat room is available.</td>
</tr>
<tr>
<td></td>
<td>Highlights are positioned at the top-right.</td>
<td>Highlights are positioned at the top-right.</td>
</tr>
<tr>
<td><strong>Commitment and consistency</strong></td>
<td>Allow users to search for information. Default choice: flight.</td>
<td>Allow users to search for information. Default choice: hotel.</td>
</tr>
<tr>
<td><strong>Social proof</strong></td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Liking</strong></td>
<td>Interactive design.</td>
<td>Interactive design.</td>
</tr>
<tr>
<td></td>
<td>Limited liking images or captions.</td>
<td>Liking images are fully utilised but not the captions.</td>
</tr>
<tr>
<td><strong>Authority</strong></td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Scarcity</strong></td>
<td>Fully utilised.</td>
<td>Fully utilised.</td>
</tr>
</tbody>
</table>

### IV. CONCEPTUAL FRAMEWORK OF PERSUASIVE VISUAL WEB DESIGN OF TOURISM WEBSITE

The combination of emotion, credibility, and relationship in website design are amongst the salient factors that lead to persuasion. These factors are depicted in the conceptual framework shown in Fig. 1. These initial factors are clustered mainly from Cialdini’s persuasion techniques by grouping the persuasion techniques that share similar design intentions or goals. New components of the framework are expected to be added once more theories and models of persuasion are discovered.

![Fig. 1. Conceptual framework for persuasive visual web design](image-url)

---
This framework follows the indication of [8] who believes that the persuasion techniques rooted from the field of human psychology with the purpose influencing others, can also be adapted into the design of a User Interface (UI). This adaptation enables a machine interface to influence the human user. This conceptual framework has been constructed to answer the following research questions: (1) How many persuasion techniques are relevant to the content of tourism website?, (2) What are the factors that best represent the persuasion techniques discovered from the previous question?, (3) What type of content is more influential in a tourism website?, (4) Which visual elements are considered persuasive and most suitable for the design of a tourism website?, and (5) What are the processes involved in designing the UI for a tourism website that includes the persuasion techniques? In this paper, content in is defined as the messages in which a website is trying to deliver or communicate to the user, and the visual elements are all the design features that can be used to visualise the content.

The above mentioned conceptual framework is fairly similar to the original means of persuasion by Aristotle in 1991; which also stresses the importance of credibility, and emotion. However, Aristotle’s concept contradicts to Cialdini’s theory with ‘logos’, in which means the appeal to logic. Cialdini’s theory seems to focus more on building a good communication and relationship with the user. Nonetheless, more work will be carried out to expand the conceptual framework. The concept of logic will also be considered and may be included in the framework.

V. DISCUSSIONS AND CONCLUSION

This paper shows that tourism websites realised the importance of building good relationship with their customers. Building a good relationship is significant with the representation of reciprocation, commitment and consistency in the design. Sufficient uses of liking and scarcity have also demonstrated that triggering customers’ attention is important. However, the lacking sign of authority and social proof, which in turn means the lack of credibility in design, suggests that tourism websites have yet to gain the trust of potential customers.

Credibility has been identified as a major influence towards purchasing intention, and tourism websites should pay attention to improve the customer’s level of trust [18]. Past research suggests that most shoppers go online only to find and research products or services before completing their purchase either by phone or a visit to a store (travel agent) location [19]. This implies that online users trust the information provided by the websites, but not the websites themselves. Referring to Table 1, it clearly shows that even though all of the four websites are among the most visited travel websites, most of the sites are still missing the visual elements that are related to persuasive design for trust. This could be one of the causes why customers are being cautious about shopping online.

This paper also suggests that tourism advertising differs from product-based advertising. The use of different media channels also shows some dissimilar impact out of each persuasion techniques. A paper by Louise Lystig & Kim [12] shows that social proof is the most popular technique used in television shopping, followed by scarcity and authority. Other techniques, although evident, appears less in the coded segments. Finding that what seem to be treated as more important in another media channel, but is treated as less important in tourism websites, has raised a question that there might be other persuasion techniques that may work better for online tourism context.

Visitors of tourism websites are among those who had the initial motivation to visit a destination, and have adequate ability to travel. As outlined in the Fogg’s Behaviour Model [5], the only missing component to persuade them to make a choice is the trigger. This paper has discussed and examined six possible persuasive triggers in the form of visual cues for the tourism website design. It can be concluded that the persuasion level in tourism website design is not yet at an optimum level. It is suggested that optimizing the triggers in the website design is a good practice to optimize the persuasion level in tourism websites.

As such, the framework for persuasive visual web design is proposed. At this stage, the conceptual framework shown in Fig. 1 consists of three salient factors which include credibility, emotion, and relationship. In the framework, all the UI elements will be designed using the appropriate persuasion techniques to produce a much more persuasive website that is able to influence the human user cognitively and perhaps behaviourally. In human psychology, there are more than fifty persuasion techniques that can influence us. As more techniques are identified, the visual cues to reinforce the value of credibility, emotion, relationship, and other relevant factors will be highlighted.

Once the clustering process to organise the persuasion techniques continues, more salient factors will be identified. As such, the conceptual framework for persuasive visual web design (Fig. 1) will be extended. Classifying the techniques accordingly to its specialities or effects in the visual design will contribute to the body of knowledge and also to the design practice. Optimising the persuasion triggers in website design would be beneficial because a more persuasive website can help to create the emotional bonding with the customers, strengthen their confidence and trust, and help them form the attitudes that cannot be easily changed [2].

REFERENCES


