Destination Iran: An analysis of tourism marketing message characteristics

Arghavan Hadinejad

BA, MSc

Department of Tourism, Sport and Hotel Management
Griffith Business School
Griffith University

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ABSTRACT

Visitor attitude is a critical component that affects potential tourists’ decision making and, ultimately, destination choice. Tourism marketers seek to influence prospective visitors’ attitudes through reinforcing existing associations with the destination or creating new associations. In addition, marketers use persuasive marketing stimuli to affect associations with the destination. In particular, the design or characteristics of marketing stimuli such as the perceived credibility and emotive aspects exert a significant impact on potential tourists’ attitudes towards, and associations with, the destination. Furthermore, the characteristics of marketing messages can influence tourists’ cognitive and affective evaluations of a place, confidence in and consideration of a holiday destination.

Social psychologists believe that message characteristics influence attitude via three dimensions of thinking: the amount of thought; valence of thinking; and thought confidence. The assertion is that the cognitive engagement with a message and the favourability of thoughts, along with an individual’s confidence in their thoughts predict attitude. However, tourism scholars have investigated only the first two dimensions of thinking: the amount and valence of thoughts. Therefore, the role of thought confidence has been understudied in the tourism context. Thought confidence forms part of the self-validation hypothesis, which asserts that thought generation is not enough to influence attitude, rather people need to feel confident in their thinking (Petty, Briñol & Tormala, 2002). Although social psychologists have examined the influence of a number of variables on attitude, the role of emotion, and specifically emotional arousal, is not well discussed in the self-validation hypothesis literature. This thesis aims to fill the gap in the
tourism and social psychology literature through adapting the main elements of previous theories of attitude – notably the elaboration likelihood model and heuristic systematic model - along with the self-validation hypothesis to study the effect of the three dimensions of thinking on attitude towards a less known tourism destination, Iran. To achieve that aim, this research applies a two-stage sequential design to manipulate the emotional arousal and perceived credibility of tourism stimuli and measures the effect of the three dimensions of thinking on attitude.

In order to manipulate the characteristics of an advertisement of Iran, a mock tourism marketing stimulus was created in Stage I. This stage involved two focus groups and Delphi panels to select the images and video segments of Iran to be included in a mock advertisement. The Delphi panellists and focus group members selected nine images of historical monuments, nature, and food along with segments of current videos of Iran to be included in the mock advertisement. Subsequently, the mock advertisement, that was created as a combination of selected photos and segments of videos was pilot tested from a representative sample of Australians to check the emotional arousal and perceived credibility manipulation. In particular, FaceReader, skin conductance, a questionnaire and post-hoc interviews were applied to assess the emotional arousal and source credibility manipulation. The results indicated that while the video with light rhythmic music was considered as a highly emotionally arousing video, the same video but without music was regarded as a low emotionally arousing advertisement. In addition, “A solo female traveller who visited Iran in 2017” was considered as a highly credible source and “A travel agency in Iran for promotional purposes” was believed to be a low credible one.
Stage II is the experiment phase (N = 416). In this stage, participants were randomly assigned to a two (emotional arousal: high or low) × two (source credibility: high or low) between subject factorial design. The results indicated that all three dimensions of thinking, the amount and valence of thoughts in addition to thought confidence, can positively affect potential visitors’ attitude towards the destination. The findings of the research also revealed that participants were more cognitively engaged with the stimuli and confident in their thoughts, and generated more positive thoughts and more favourable attitudes about Iran as a destination when the tourism stimulus was perceived as highly credible and evoked high levels of emotional arousal.

This thesis provides a number of contributions. Theoretically, the study adds value to the body of literature in social psychology by examining the role of emotional arousal in explaining thought confidence and attitude. There is also a contribution to the tourism literature by adapting the self-validation hypothesis from social psychology and adding a metacognitive aspect to attitudinal research in the tourism context. This research is also novel in exploring the effect of source credibility on attitude from a metacognitive perspective in the tourism literature. Methodologically, this research contributes to the tourism literature by its novel application of physiological tools - FaceReader and skin conductance - to analyse emotions elicited in response to tourism advertisements. From a practical perspective, the present study provides valuable feedback for destination managers and marketers, especially for the design of marketing stimuli. Managers of less-known destinations need to create emotionally arousing advertising in order to make potential visitors cognitively engaged with the stimuli, make them confident in their thoughts and thus exert a positive impact on subsequent attitude towards the destination. Furthermore, Iranian tourism practitioners can rely on the content and stories shared on
social media by real tourists as credible references to encourage potential visitors to travel to their destination.
Statement of originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Arghavan Hadinejad

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CHAPTER 1

INTRODUCTION

1.1. Background of the study

Visitors’ favourable or unfavourable evaluations of a destination shape their attitude towards that place (Newhouse, 1990). Visitor attitude is an important construct in the tourism literature which affects the trip planning process (Lee, 2009; Um & Crompton, 1990). In the pre-travel stage, visitor attitudes towards a destination are influenced by information they receive from organic sources (e.g., word of mouth, online reviews, etc.) as well as tourism marketing stimuli (Ayeh, Au, & Law, 2013; Jalilvand, Samiei, Dini, & Manzari, 2012; Li, Walters, Packer, & Scott, 2018a). Accordingly, tourism marketers seek to influence visitors’ attitude and visitation decisions by using persuasive marketing stimuli in the pre-travel stage (Loda, Norman, & Backman, 2007; Kim, Hwang, & Fesenmaier, 2005).

According to social psychology, marketing stimuli affects attitude by influencing three dimensions of thinking: the amount of thought; valence of thinking; and thought confidence (Briñol, Petty, & Barden, 2007a; Tormala, Briñol, & Petty, 2006; Briñol, Petty, Tormala, 2004). The first two primary aspects of thinking, the amount of thinking and the valence of thoughts, are described in contemporary theories of attitude, notably the elaboration likelihood model and the heuristic systematic model (Petty et al., 2002). These theories assert that attitude is affected by the extent to which an individual cognitively responds to a persuasive message or elaborates on that information, that is,
the amount of thinking, as well as the number of favourable thoughts, that is, the valence of thinking generated in response to the stimuli.

In 2002, social psychology researchers introduced metacognition as the third dimension of thinking. Metacognition is thinking about primary thoughts. This third dimension of thinking is presented in a theoretical framework called the self-validation hypothesis which has been understudied in the tourism context (Briñol, Petty, & Rucker, 2006). The key notion of the self-validation hypothesis is that generating thoughts is not enough to influence attitude, rather people also consider confidence in their own thoughts (Briñol & Petty, 2015; Briñol, Petty, & Stavraki, 2012; Evans & Clark, 2012). Thought confidence refers to “a sense of conviction or validity regarding one’s thoughts” (Petty et al., 2002, p. 724), which can affect attitude. That said, when individuals report their thoughts regarding a message, they need to think again about their thoughts to explain how much confidence they have in their thinking. According to the self-validation hypothesis, people who are more confident in the validity of their thoughts have more confidence in their beliefs and, therefore, are more convinced of their attitude towards an object, in this context a destination (Petty et al., 2002). This is especially true for tourism due to the intangible nature of services (i.e., you are unsure of what you will get until you are experiencing it in the destination) and the perceived risk associated with destination selection (i.e., selecting the right destination to fulfil your needs) (Loda, Teichmann, & Zins, 2009).

Prior research has revealed that the design of marketing stimuli can significantly affect individuals’ thoughts and attitude (Briñol et al., 2004). The characteristics of tourism communications, therefore, play a critical role in influencing visitors’ beliefs and
evaluations of destinations (Decrop, 2007). This is mainly because the design of tourism marketing stimuli affects potential visitors’ attitudes towards a destination, information processing, their decision-making procedure regarding visiting a place and, thus, is a measure of advertising effectiveness (Ngan & Yang, 2019). The characteristics of a stimulus - such as the strength of arguments of a message, reliability of persuasive communication, and cohesiveness of information in an advertisement - can influence attitude through affecting thoughts (Tormala, Petty, & Briñol, 2002; Clark & Evans, 2014; Clark & Thiem, 2015). The literature also suggests that source credibility and emotional features of marketing stimuli influence thinking and attitude towards the object (destination) (Briñol et al., 2007a; Tormala et al., 2006). These concepts, relating to attitude formation, are central to this study.

Source credibility is the perceived expertise and trustworthiness of a message (Kelman & Hovland, 1953), which influences an individual’s thoughts and attitude towards an object (Tormala et al., 2006). Highly credible sources have a stronger impact on an individual’s amount of thought, valence of thoughts and though confidence in response to a stimulus and subsequent attitude towards the destination, compared to low credible stimuli (Tormala et al., 2006; Tormala, Briñol, & Petty, 2007; Clark et al., 2013). The credibility of stimuli is particularly critical for a tourism destination because its experiences are intangible, so people are often unsure exactly what they will receive until they arrive at the destination. Despite the extensive literature on the impact of source credibility on the three dimensions of thinking, tourism studies have neglected this effect through the lens of metacognition.
Emotion is another stimuli characteristic which can affect individuals’ thoughts and attitudes (Edell & Burke, 1987; Hosany & Prayag, 2013). Emotional stimuli have a stronger effect on attitude through influencing individuals’ thoughts compared to non-emotional messages (Chartrand, van Baaren, & Bargh, 2006). Emotional responses evoked by an advertisement are predictors of positive attitude and intention to purchase (Niazi, Ghani, & Aziz, 2012). For example, research has shown that designing an emotional advertisement, rather than an informational one, can affect prospective visitors’ attitudes towards a destination and their visit intentions (Wang, Kirillova, & Lehto, 2017; Yoo & MacInnis, 2005). Similarly, the valence of emotions (positive or negative) and emotional arousal (activation of an emotion) elicited in response to tourism marketing stimuli affect potential visitors’ attitudes towards a tourism destination (Li et al., 2018a). Emotions evoked by marketing stimuli influence the amount of thought, valence of thinking, thought confidence and attitude (Briñol et al., 2004; Hirt, Devers, & McCrea, 2008). Previous social psychology literature has investigated the impact of the valence of emotion on three dimensions of thinking (e.g. Briñol et al., 2007a); meanwhile, the role of emotional arousal in thoughts and subsequent attitudes is underexplored. Prior research has overwhelmingly applied self-report surveys to measure emotions evoked by marketing stimuli which have come under scrutiny (Chiou, Lin, & Perng, 2011).

Self-report surveys are simple and quick to administer (Li, Scott & Walters, 2015). However, self-report methods depend heavily on recollection of emotions, which may not represent an individual’s emotional responses in-situ (Robinson & Clore, 2002; Hadinejad, Moyle, Scott, & Kralj, 2019b; Mauss & Robinson, 2009; Hetland, Vittersø, Wie, Kjelstrup, Mittner, & Dahl, 2018). There are a number of physiological techniques available for use as alternatives to the self-report measurement of emotion, such as facial
electromyography, electrodermal activity, and facial action coding system (Chittaro & Sioni, 2014; Li, Walters, Packer, & Scott, 2018b; Kreibig, 2010). Electromyography measures the electrical impulses involved in the contraction of the facial muscle (Mauss & Robinson, 2009), but can only measure the valence of emotions (Bolls, Lang, & Potter, 2001). Skin conductance, which is a tool to measure electrodermal activity, is an effective technique to assess emotional arousal (Khalfa, Isabelle, Jean-Pierre, & Manon, 2002). FaceReader is a facial action coding system software used to identify six basic emotions: happiness, sadness, anger, fear, disgust, and surprise (plus neutral), as well as emotional arousal and valence (Zaman & Shrimpton-Smith, 2006). Scholars are becoming aware that physiological techniques can be used in combination with existing self-report measures to explore elicitation of emotion to marketing stimuli (Kim & Fesenmaier, 2015; Brodien Hapairai, Walters, & Li, 2018). This thesis seeks to adopt recent developments in theories of attitude from social psychology and apply innovative physiological approaches to measure emotional responses.

1.2. Research problem

Tourism scholars have called for applying new theories and frameworks to study attitude (Wang, 2016; Gao, Mattila, & Lee, 2016; Sharpley 2014). In particular, scholars have suggested adopting recent developments in foundation disciplines such as social psychology to advance the body of knowledge on attitudinal research in tourism (Hadinejad, Moyle, Scott, Kralj & Nunkoo, 2019a). Prior tourism research in the domain of visitor attitude has applied the first two dimensions of thinking, amount and valence of thinking (as described in the elaboration likelihood and heuristic systematic models) (e.g., Tang, Jang, & Morrison, 2012; Sparks, Perkins, & Buckley, 2013). Accordingly, the role
of thought confidence (as described in the self-validation hypothesis) in explaining attitude is underexplored in the tourism field. This research, therefore, adapts the key tenets of the elaboration likelihood model and heuristic systematic model, the amount and valence of thinking, as well as the primary principle of the self-validation hypothesis, thought confidence. That is, this research aims to explore the effect of emotional arousal and source credibility of tourism marketing stimuli on the three dimensions of thinking and subsequent attitude. Figure 1.1 shows the overarching conceptual framework for this study.

![Figure 1.1 Proposed model for the current research](image)

In addition to gaps in the theoretical underpinning of attitudinal research in tourism, enhanced insights into the impact of marketing message design on visitor attitude are needed. The prior scholarly enquiry has revealed that, although much attention has focused on advertising effectiveness, little research has examined message design and its effect on attitude in tourism (Amar, Droulers, & Legohérel, 2017). Accordingly, this thesis explores the effect of emotional arousal and source credibility of tourism marketing stimuli on three dimensions of thoughts and attitude. There are two reasons for this. First, although social psychologists have examined the influence of a number of variables such
as source credibility, self-affirmation, and ease of retrieval on attitude (Briñol & Petty, 2015; Briñol, Petty, Gallardo, & DeMarree, 2007b; Tormala et al., 2002), the role of emotion, and specifically emotional arousal, is not well discussed in the self-validation hypothesis literature. Accordingly, this research responds to the call of the self-validation hypothesis scholars for the investigation of other possible factors that have the potential to affect thought confidence (Briñol & Petty, 2015; Clark, Wegener, Sawicki, Petty, & Briñol, 2013). Second, previous tourism researchers have extensively examined the impact of source credibility on potential and actual visitors’ attitude (e.g., Kerstetter & Cho, 2004; Mack, Blose, & Pan, 2008; Veasna, Wu, & Huang, 2013). However, the effect of source credibility on attitude has not been explored from a metacognitive perspective. Accordingly, there is a dearth of research in tourism which delves into the role of source credibility on attitude through the lens of metacognition (Hadinejad et al., 2019a).

The final research problem deals with the measurement of emotional responses. There is a growing emergence of studies in tourism that have adopted physiological technologies (e.g., Brodien Hapairai et al., 2018; Shoval, Schvimer, & Tamir, 2018; Babakhani, Ritchie, & Dolnicar, 2017); however, scholars note more research is required using such techniques (Hetland et al., 2018; Kim, Kim, & Bolls, 2014). Previous scholars have criticised self-report surveys for allowing retrospective reflection which might be non-representative of actual emotions experienced (Li et al., 2015) and, thus, called for further application of physiological technologies to measure emotional experiences (e.g. Li et al., 2018a; Hadinejad et al., 2019b; Hetland et al., 2018). Accordingly, this research applies both physiological and self-report techniques to assess participants’ emotional responses.
1.3. The context of the study

Familiarity with a destination affects potential tourists’ attitudes towards that place (Khan, Chelliah, & Ahmed, 2017), yet, most of the tourism literature concentrates on well-known destinations, while unfamiliar destinations have been understudied (Tan, 2017). Iran is not often considered as a tourism destination and therefore, many people are unfamiliar with its tourism offering (Jalilvand et al., 2012). It was therefore selected as the context for this thesis for several reasons. First, although the concept of attitude has been explored in Iran’s tourism literature (e.g., Jalilvand, Ebrahimi, & Samiei, 2013; Zamani-Farahani & Musa, 2008), previous research has neglected a metacognitive approach to investigate this concept among Iran’s potential visitors. Thus, a more in-depth understanding of metacognition may significantly contribute to improving Iran’s potential visitors’ attitudes towards this country. Second, Iran has the potential to attract tourists from all over the world, but the tourism industry’s weak advertisements hinder potential tourists from visiting this country (Mowforth & Munt, 2003). In addition, due to a lack of effective advertising and sufficient information, the tourism offerings of Iran remain less known to the world (Jalilvand et al., 2012). Destination managers need to utilise persuasive tourism marketing stimuli to exert a positive influence on prospective visitors’ attitudes and encourage them to visit their destination (Kim et al., 2005). Accordingly, examining Iran’s promotional advertisements might assist in addressing this real-world problem. Finally, prior research has indicated that tourism provides destination managers with the opportunity to generate income and employment (Snyman, 2012). This is especially true for countries such as Iran to substitute tourism with the oil industry due to the sanctions and consequent reduction in oil revenue during recent years (Karrouri, Hadinejad, & Mahmoudzadeh, 2014).
Iran has significant tourism potential as an emerging Middle Eastern destination. Iran is one of the world’s oldest civilisations, with historical and urban settlements dating back to more than 5000 BC. Iran possesses environmental and heritage assets, rich culture and different climate zones that offer a diverse range of tourism attractions (Fakharyan, Jalilvand, Elyasi, & Mohammadi, 2012). Iran’s tourism industry relies on archaeology, cultural heritage, custom and natural assets, all of which are attractive for international tourists (Zamani-Farahani & Musa, 2008). However, Iran’s negative image regarding safety, political insecurity, and poor management, coupled with international sanctions, has led to a decrease in international tourism revenues (Pratt & Alizadeh, 2018). The United States (US) governments’ sanctions and boycotts against Iran have negatively affected Iran’s tourism industry and, more broadly, Iran’s international reputation (Seyfi & Hall, 2019a). Despite the US sanctions, Iran gained reputation as a tourism destination on media discourse (Seyfi & Hall, 2019a). However, perceptions of political instability, whether reflecting on the ground realities or not, generate safety concerns for visitors and accordingly negatively affect destination choice (Sharifpour, Walters, Ritchie, & Winter, 2014). Therefore, using persuasive marketing stimuli might positively affect potential visitors’ attitudes towards Iran and encourage their visitation decision.

### 1.4. Research objective and questions

The preceding sections highlighted the recognition of the importance of the role of emotional arousal and source credibility on attitude towards a destination. Accordingly, the study’s objective is:

*To explore the effect of emotional arousal and source credibility on potential visitors’ thoughts and attitude towards a tourism destination.*
To assist in the achievement of the research objective, the following research questions are presented:

**RQ1:** How do different tourism marketing stimuli of Iran differ in evoking emotional responses in potential visitors?

**RQ2:** How do cognitive and metacognitive thinking affect attitude towards Iran as a destination?

**RQ3:** How do cognitive and metacognitive thinking affect attitude across different levels of emotional arousal and perceived credibility of a tourism marketing stimulus of Iran?

**RQ4:** How do cognitive and metacognitive thinking and attitude differ across different levels of emotional arousal and perceived credibility of a tourism marketing stimulus of Iran?

### 1.5. Research methodology

This research aims to explore the objective and questions which is guided by a pragmatic paradigm and employs both qualitative and quantitative methods (Teddlie & Tashakkori, 2003). Figure 1.2 presents a map of research methodology against the research questions. The first research question assesses how emotional responses vary according to the level of emotional arousal evoked by the tourism marketing stimuli of Iran which is covered in Stage I. Stage II deals with RQ2, RQ3, and RQ4 on the impact of the amount and valence of thoughts and thought confidence on attitude and the difference in these concepts across experimental conditions.
Figure 1.2 Map of the current research methodology
Stage I identifies the images and video segments which create emotional arousal, positive emotions and have the potential to affect tourists’ attitude (Niazi et al., 2012). To this end, industry practitioners and tourism marketing leading scholars from Iran and Australia participated in two Delphi studies. As a result, they selected nine images of historical monuments, nature and food to be included in a tourism advertisement of Iran. Tourism marketing experts from an Australian university took part in two focus groups and selected 87 seconds of existing videos of Iran to be included in the advertisement. A mock advertisement of Iran was created as a result of combining nine images and 87 seconds of videos. The researcher then conducted a pilot study on 43 Australians to check the manipulation of emotional arousal and source credibility to be used in Stage II. FaceReader, skin conductance, a questionnaire and post-hoc interviews were applied to check the required manipulation. Overall, the results of Stage I led to the creation of tourism marketing stimuli with the required characteristics for use in the second stage of the research.

In Stage II, data were collected from Australians using an online survey that resulted in 416 fully completed questionnaires. An experimental design was followed where participants were randomly assigned to a two (emotional arousal: high or low) × two (source credibility: high or low) between subject factorial design. That is, conditions included either high or low emotional arousal and a high or low source credibility group, as shown in Figure 1.3. There are four conditions in the current study: Condition 1 (high emotional arousal, high source credibility); condition 2 (high emotional arousal, low source credibility); condition 3 (low emotional arousal, high source credibility); and condition 4 (low emotional arousal, low source credibility) (see section 3.5.1 for further information about each experimental condition). The quantitative data were tested using
standard multiple regression analysis and analysis of variance (ANOVA) using Statistical Package for Social Sciences (SPSS version 22).

1.6. Contribution of the study

This thesis contributes to attitudinal research by exploring the effect of emotional arousal on thought confidence. In addition, this research provides a methodological contribution through the application of FaceReader and skin conductance as physiological technologies to measure emotional responses. This thesis presents practical contributions for tourism destination managers and marketers for the design of marketing stimuli. Theoretical, methodological and practical contributions are further detailed below.

1.6.1. Theoretical contributions

This thesis responds to the call for the application of new theories of attitude (Wang, 2016; Gao et al., 2016; Sharpley 2014; Hadinejad et al., 2019a) by utilising a
metacognitive theoretical framework from social psychology. Previous tourism literature has examined only two dimensions of thinking, that is, the valence and amount of thought. This research advances tourism knowledge by merging the key tenets of the theories of the elaboration likelihood model, heuristic systematic model and self-validation hypothesis to investigate the effect of the characteristics of tourism marketing stimuli on potential visitors’ three dimensions of thinking and attitude. In particular, in response to the call for further analysis of the self-validation hypothesis (Briñol & Petty, 2015; Clark et al., 2013), this thesis contributes to both tourism and social psychology literature through examining the effect of emotional arousal on three dimensions of thoughts and attitude. This research is also one of the first in tourism to explore the effect of source credibility on thought confidence.

1.6.2. Methodological contributions

Methodologically, this research contributes to tourism literature by applying psychophysiological measurements of emotions. Self-report measures dominate studies on individuals’ emotional responses in the tourism and marketing literature. The self-report approach, which asks participants to express emotions through questionnaires based on remembered emotional experiences, has been criticised for allowing retrospective reflection (Li et al., 2015). An emerging body of literature highlights the reliability of physiological techniques in combination with existing self-report measures to explore the elicitation of emotion (Kim & Fesenmaier, 2015). In Stage I, physiological measurements were employed to capture participants’ emotional responses to tourism advertisements. A methodological contribution of this research is the application of physiological technologies by employing FaceReader and skin conductance to measure
participants’ emotional responses. This research advances knowledge in tourism literature as it employs experimental design in Stage II which is not common in the field (Fong, Law, Tang, & Yap, 2016). This thesis also applies a bigger sample size for the experimental condition compared to the self-validation hypothesis literature and similar tourism studies (e.g., Briñol & Petty, 2003; Briñol et al., 2007a; Wang & Sparks, 2016).

1.6.3. Practical contributions

From a practical perspective, the present study provides valuable feedback for destination managers and marketers, especially for the design of marketing stimuli. Connected to this, there are significant implications for tourism practitioners as they need to create emotional stimuli to influence potential visitors’ emotions and, accordingly, their attitude (Amar et al., 2017; Yoo & MacInnis, 2005). The findings of this research can help tourism managers, in particular, Iran destination marketers and countries in a similar position, regarding the content of a tourism advertisement to promote the destination and affect potential visitors’ attitudes. Further, insights are provided into the creation of emotionally arousing advertising in order to engage potential visitors with the stimuli and thus generate positive attitudes towards a destination (Chartrand et al., 2006; Briñol et al., 2004). This research also shows that tourism marketers need to employ emotionally arousing stimuli to ensure potential visitors are confident in their thoughts and attitudes towards the destination. More than this, tourism managers and marketers need to utilise credible sources to influence potential visitors’ attitudes positively (Tham, Croy, & Mair, 2013).
1.7. Thesis structure

This thesis includes six chapters as indicated in Figure 1.4. Chapter 1 has provided an overview of the background of the study and the theoretical framework, research problem, questions and contributions of the thesis as well as research methodology. Chapter 2 reviews the literature relevant to the thesis topic, specifically attitudinal research in tourism and social psychology, emotion and source credibility. Chapter 2 also closely examines the self-validation hypothesis framework and concludes by presenting the research gap, conceptual framework and research hypotheses. Chapter 3 discusses the methodology used to examine the research hypotheses, as well as the research design, and data collection stages and methods. Further, Chapter 3 explains the measurements of variables and the application of statistical analysis. Chapter 4 presents the details of Delphi panels and focus groups for creating the mock advertisement of Iran. In addition, Chapter 4 reveals the findings of the emotional arousal and source credibility manipulation check. Chapter 5 presents the results of hypotheses testing using standard multiple regression analysis and ANOVA. Chapter 6 discusses the results and presents the theoretical, methodological and practical contributions. Research limitations and future research directions are also discussed in Chapter 6.
<table>
<thead>
<tr>
<th>Chapter 1</th>
<th>Introduction</th>
<th>An outline of the study background, theoretical framework, research problem, research questions and objective as well as the contributions of the thesis and a brief summary of the research methodology.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 2</td>
<td>Literature Review</td>
<td>A literature review on attitudinal research in tourism and social psychology, the influence of emotion and source credibility on attitude, an outline of the research gap, conceptual framework and research hypotheses.</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Research Methodology</td>
<td>An overview of the research methodology, research design, data collection, measurements of variables and data analysis.</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Stage I: Stimuli Development</td>
<td>Details of Delphi panels and focus groups for creating the mock advertisement of Iran and findings from physiological and self-report methods on the stimuli manipulation check.</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Stage II: The Experiment</td>
<td>Details of data analysis, results of regression analysis, ANOVA and hypotheses testing.</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>Discussion</td>
<td>A discussion of the findings, research limitations and future directions and research contributions.</td>
</tr>
</tbody>
</table>

Figure 1.4 Thesis structure

### 1.8. Definitions

A number of key terms are used frequently in this thesis. To assist the reader in understanding their meaning as applied in the context of this study, Table 1.1 presents this terminology.
### Table 1.1 Definition of key terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>An individual’s favourable or unfavourable evaluation of objects, issues, and events (Newhouse, 1990).</td>
</tr>
<tr>
<td>Self-validation hypothesis</td>
<td>The self-validation hypothesis is a social psychology theoretical framework which highlights the role of confidence people have in their thoughts and contends that thought confidence can strengthen or weaken attitude (Briñol &amp; Petty, 2009b).</td>
</tr>
<tr>
<td>Elaboration likelihood model</td>
<td>The elaboration likelihood model is a cognitive theory from social psychology which postulates that attitude change occurs through two routes, a central or peripheral route (Gu et al., 2017).</td>
</tr>
<tr>
<td>Heuristic systematic model</td>
<td>The heuristic-systematic model is a cognitive theory from social psychology which posits that an attitude change mechanism can be induced through two modes of information processing, the heuristic and systematic modes (Chen, Duckworth, &amp; Chaiken, 1999).</td>
</tr>
<tr>
<td>Cognitive thinking</td>
<td>An individual’s initial association of an object with some attributes is referred to as cognitive as well as primary cognition (McGuire &amp; McGuire, 1991).</td>
</tr>
<tr>
<td>Metacognitive thinking</td>
<td>Secondary thoughts or second-order thoughts are thoughts about cognitive or primary thoughts (Briñol et al., 2006).</td>
</tr>
<tr>
<td>Thought confidence</td>
<td>“A sense of conviction or validity regarding one’s thoughts” (Petty et al., 2002, p. 724).</td>
</tr>
<tr>
<td>Emotion</td>
<td>“Episodic, relatively short-term, biologically based patterns of perception, experience, physiology, action, and communication that occur in response to special physical and social challenges and opportunities” (Keltner and Gross, 1999, p. 468).</td>
</tr>
<tr>
<td>Emotional arousal</td>
<td>Emotional arousal refers to an individual emotional state, either activated or calm (Kim &amp; Fesenmaier, 2015).</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Valence of emotion</td>
<td>Valence indicates the pleasantness (positive or negative) of an emotion (Li et al., 2015).</td>
</tr>
<tr>
<td>Source credibility</td>
<td>The perceived expertise and trustworthiness of a message (Kelman &amp; Hovland, 1953)</td>
</tr>
<tr>
<td>FaceReader</td>
<td>FaceReader is a tool used to identify facial expressions which can measure six basic emotions; happiness, sadness, anger, fear, disgust, and surprise (plus neutral), as well as emotional arousal and valence (Zaman &amp; Shrimpton-Smith, 2006).</td>
</tr>
<tr>
<td>Skin conductance</td>
<td>Skin conductance is an effective technique to assess emotional arousal, which works based on sweat gland activity and change in skin conductivity (Grabe, Lang, Zhou, &amp; Bolls, 2000).</td>
</tr>
</tbody>
</table>

### 1.9. Summary

This chapter highlights the role of thinking in explaining attitude in social psychology. It was emphasised that only two dimensions of thinking - the amount and valence of thoughts - have been applied in tourism. The role of thought confidence is underexplored in the tourism domain. This chapter discussed the effect of message characteristics on attitude, revealing that social psychologists apply all three dimensions of thinking (amount, valence and confidence) to explain attitude. By examining the effect of emotional arousal and source credibility on the three dimensions of thinking and attitude, this thesis contributes to knowledge in social psychology and tourism. In addition, through the utilisation of physiological technologies, this thesis responds to criticisms of self-report surveys measuring emotions and provides insights into the relative merits of each technique.

The following chapter outlines a review of the current literature on attitudinal research in tourism and social psychology and the impact of message characteristics on attitude. Through the in-depth review, Chapter 2 will highlight the key research gaps, build the
case for the conceptual framework, and develop the particular research hypotheses to be investigated in the main experimental study.
CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

The purpose of Chapter 2 is to critique relevant bodies of knowledge to set a theoretical foundation to solve the research problem and achieve the related objective. Accordingly, this chapter reviews the relevant literature to the thesis topic, specifically attitude. The chapter begins with a review of the relevant research on visitor attitude in tourism. The criticism against the current theories of attitude applied in the field is then presented. This section is followed by a review of attitudinal research in social psychology which aims to identify a synopsis of history and evolution of theories of attitude. Models of prominent theories of attitude are also presented. Following a review of seminal and contemporary literature on attitudinal studies, the main gap between tourism and social psychology is outlined. A brief history of the self-validation hypothesis is critiqued with a core focus on reviewing the factors affecting thought confidence. Source and recipient effects in the self-validation hypothesis literature are discussed to identify the research gap. In this chapter, message characteristics, such as emotion and source credibility, and the potential of these characteristics to influence attitude are also discussed. Finally, the research gap, conceptual framework and hypotheses are presented.
2.2. Visitor attitude towards tourism destinations

Visitor attitude is defined as the favourable or unfavourable perceptions of a destination (Al Muala, 2011). Attitude towards a destination is shaped by a consumer’s positive and negative views or beliefs about that place and is therefore critical to travel decision making (Ayeh et al., 2013). However, due to the intangible nature of tourism services and the perceived risk pertinent to destination selection, potential visitors might have impressions or views about a destination, but they are unable to know exactly what they will get until they arrive and experience (Loda et al., 2009). Therefore, potential visitors are unable to truly understand a destination’s attributes in the pre-travel stage and rely on their impressions and attitude based upon secondary sources, such as advertising and word-of-mouth (Ayeh et al., 2013). In addition, potential visitors have limited knowledge about a place they have not previously visited ((Budi, Wen, & Ratnawati, 2017) or tourism destinations which are weak in providing sufficient marketing and advertising stimuli (Jalilvand et al., 2012). Thus, attitude plays a central role in destination choice and planning for the trip (Um & Crompton, 1990).

One of the earlier pioneers in attitudinal research, Fishbein (1967), argues the importance of distinguishing between an individual’s beliefs and attitude. While beliefs refer to information held about an object, attitude is a favourable or unfavourable evaluation of objects, issues, and events (Pike & Ryan, 2004). Fishbein (1967) proposes attitude involves cognitive, affective and behavioural aspects. The cognitive component is awareness, knowledge or beliefs. Cognition is the sum of what is known about a tourism destination and is the evaluation made in the attitude formation stage (Jalilvand et al., 2012). This attitude formation stage can be affected by previous visits or information
received from different marketing sources (Pike & Ryan, 2004). The affective aspect indicates an individual’s feelings towards a destination, which could be favourable, unfavourable or neutral (Back & Parks, 2003). According to Gartner (1994), potential visitors’ affect plays a critical role in the evaluation stage of the destination selection process. The behavioural dimension is the likelihood of visiting a destination (Pike & Ryan, 2004). Tourism scholars have explored the factors with the potential to influence the components of visitor attitude.

The study of attitude towards travel, and specifically destinations, dominates the contemporary tourism literature (Jordan, Bynum Boley, Knollenberg, & Kline, 2018). Studies on the factors affecting the components of visitor attitude can be classified into two categories. One group of studies deals with the consequences of attitudinal judgments (e.g., Litvin & MacLaurin, 2001; Pandža Bajs, 2015; Sparks & Pan, 2009); another group of studies explores the antecedents of attitude (e.g., Gomez-Jacinto, San Martin-Garcia, & Bertiche-Haud’Huyze, 1999; Kim & Jun, 2016; Sharifpour et al., 2014). Visitor attitude is considered as a key influencer of individuals’ travel planning decision-making and can predict intention to visit a destination (Oh & Hsu, 2001). Numerous studies in tourism have explored the effect of visitor attitude on intention to visit a destination (e.g.; Schroeder, Pennington-Gray, Kaplanidou, & Zhan, 2013; Kim & Stepchenkova, 2015). For instance, research has indicated that potential visitors’ attitudes predict their intention to take a vacation to a wine region (Sparks, 2007). Similarly, potential visitors’ attitudes towards, and the mental image of a casino play significant roles in predicting their intentional behaviours (Wang & Fu, 2015).
Tourism literature has extensively focused on potential visitors’ attitudes towards destinations (e.g. Amar et al., 2017; de Oliveira Santos & Giraldi, 2017; Tang et al., 2012; Sparks & Pan, 2009). Research has found that visitor attitude towards destinations in the pre-travel stage can be influenced by the associative slogans and destination familiarity (Zhang, Gursoy, & Xu, 2017), word of mouth (WOM) (Jalilvand et al., 2012), and destination advertising (Loda et al., 2007). As an underlying premise of marketing, tourism practitioners try to influence visitors’ attitudes through contrived, marketer-designed stimuli, such as advertisements on television and the Internet. This communication has been shown to have a substantial impact on attitude towards a destination (e.g., Amar et al., 2017; Li et al., 2018b) and the travel planning process (Sparks, & Pan, 2009; Um & Crompton, 1990).

Tourism marketers seek to influence tourists’ travel planning by using persuasive marketing stimuli (Kim et al., 2005) that either reinforce their existing opinions, create new beliefs or change attitudes towards a destination (Yüksel & Akgül, 2007). Visual elements of an advertisement design, such as typography, have a significant impact on potential visitors’ evaluations of the advertisement and their attitude towards the destination (Amar et al., 2017). Further, the emotional features of tourism marketing videos elicit different levels of emotional arousal and valence (Li et al., 2018b) and, thus, impact on potential visitors’ attitudes (Li et al., 2018a). Tourism researchers have sought various ways such as celebrity endorsers (Van der Veen & Song, 2014), narratives (Ryu, Lehto, Gordon, & Fu, 2019), advertising (Li et al., 2018a), destination postcards (Yüksel & Akgül, 2007) or destination websites (Tang et al., 2012) to influence visitors’ attitudes towards destinations and their subsequent decision-making procedure. That said, the
ability to affect potential tourists’ attitudes towards a destination is of crucial importance for destination marketers.

### 2.2.1. Dominant theories to explore visitors’ attitude

There is a long history of attitudinal research in tourism. The theory of planned behaviour has been the most common theory applied in tourism to investigate attitude (Wang & Ritchie, 2012; Esfandiar, Pearce, & Dowling, 2019). This theory proposes that tourists’ behavioural intentions are based on their attitude, social norms and perceived behaviour controls (Fishbein & Ajzen, 1975).

The theory of planned behaviour discusses that behavioural intentions are the most significant determinant of whether an individual will engage in a specific behaviour and are a function of a person’s attitude towards the behaviour, his or her perceptions of the subjective norms regarding the behaviour and the perceived behavioural control over the performance of that behaviour (Guan et al., 2016). Attitude refers to the extent to which a person has a favourable or unfavourable evaluation of the behaviour in question (Fielding, Terry, Masser, & Hogg, 2008). Subjective norms refer to a person’s perceptions of others’ opinions on whether he or she should engage in a given behaviour or not (May So, Danny Wong, & Sculli, 2005). Perceived control is a person’s perceived ability to control a particular behaviour (Niewöhner, Cox, Gerrard, & Pidgeon, 2004). The theory of planned the behaviour model is presented in Figure 2.1.
A number of scholarly studies in tourism have employed the theory of planned behaviour in the past decade across broad geographical locations to investigate leisure participation (e.g., Goh, Ritchie, & Wang, 2017); hotel choice (e.g., Han, Hsu, & Sheu, 2010), hospitality employees’ behaviours (e.g., Huh, Kim, & Law, 2009), holiday cycling (e.g., Kaplan, Manca, Nielsen, & Prato, 2015); casino gaming (e.g., Wang & Fu, 2015); international travel (e.g., Hsu & Huang, 2012); and risk management (e.g., Gstaettner, Rodger, & Lee, 2017). In particular, tourism scholars have utilised the theory of planned behaviour to explore travellers’ decision-making and intention to visit based on their attitude towards a specific destination. For instance, the theory of planned behaviour has been applied to investigate the effects of Chinese travellers’ motivation, previous travel experience, perceived constraint and attitude concerning their intention to visit Hong Kong with the results confirming the impacts of all variables on visit intention (Huang & Hsu, 2009).

Prior research has revealed that while Taiwanese travellers’ attitudes, perceived behavioural control and past behaviour predict their intention to visit Hong Kong (Lam & Hsu, 2006), Chinese outbound tourists’ intention to travel is mostly influenced by their
social normative influences and perceived levels of personal control (Sparks & Pan, 2009). Similarly, Sparks (2007) has shown that subjective norms do not have a significant impact on the intention to visit a winery in Australia. In similar studies, researchers have found that potential visitors’ attitudes affect their intention to visit wineries in Australia and USA (Quintal, Thomas, & Phau, 2015), while attitude and subjective norms have no significant effect on intentions to visit cultural heritage sites in China (Shen, Schüttemeyer, & Braun, 2009).

The theory of planned behaviour is claimed to be effective in explaining attitude and intentions in tourism (Chao, 2012), with the frequent application of this conceptual framework confirming its usefulness. In addition, numerous empirical studies have confirmed the relationship between the three theory of planned behaviour variables and visit intentions in tourism (Park, Lee, & Peters, 2017). However, scholars have claimed that there is a gap between an individual’s intention and the actual behaviour (Esfandiar et al., 2019). A visitor’s actual behaviour is not equivalent to his/her attitude towards a destination and this issue can be solved by conducting longitudinal studies (Armitage & Conner, 2001). Connected to this, Sniehotta et al. (2014) argue that the theory of planned behaviour has less predictive power of behaviours in a longitudinal study than a ‘shortitudinal’ design when outcome measures were taken objectively rather than using self-report surveys. The theory of planned behaviour seems simplistic to apply to tourism where visitors’ attitudes and visit intentions are affected by myriad factors, sometimes with an absence of reasoned thoughts (Miller, Rathouse, Scarles, Holmes, & Tribe, 2010). The theory of planned behaviour has been criticised for assuming human decision-making a rational and cognitive procedure (Bagozzi, Gurhan-Canli, & Priester 2002; Smallman
& Moore 2010). The reliance on cognition tends to neglect the influence of emotions, personal norms, habits and unconscious influences (Hale, Householder, & Greene, 2002; Esfandiar et al., 2019). Accordingly, this theory is deficient for neglecting the affective and metacognitive aspects involved in the tourist decision-making procedure (McCabe, Li, & Chen, 2016). Gao et al. (2016) argue that “the positive relationship between consumer perceptions and behavioural intentions is well-established. Therefore, it might not be fruitful to continue to apply identical frameworks (e.g., the theory of planned behaviour or the theory of reasoned action) in future research”. Hagger (2015) suggests that the ease of data collection on the measures of theory of planned behaviour constructs led to a replication of this theory and thus studies applying this theoretical basis are the same but in different behavioural contexts and, thus, not novel.

Further, tourism scholars have called for reviewing attitude applying new theories and frameworks from early studies on this topic (Stringer & Pearce, 1984) until recent publications (Wang, 2016; Gao et al., 2014). Scholars (e.g., Hadinejad et al., 2019a; Esfandiar et al., 2019) have called for the use of alternative theories of attitude, especially applying recent developments in foundation disciplines like social psychology, to push the body of knowledge on attitudinal research in tourism forward. Therefore, a synopsis of theories of attitude in social psychology is presented in the following section.

2.3. Attitudinal research in social psychology

The study of attitude began in ancient Greece (Thomas & Webb, 1994). Early approaches to attitude focused on issues such as the persuasiveness of experts in comparison with non-experts, the persuasiveness of emotional compared to logical arguments and the relative utility of fear in persuasive communication (McGuire, 1969). The modern
research on attitudinal studies was initiated in the early 1900s (Murphy & Murphy, 1931). The next section critiques the existing body of literature in social psychology and provides an overview of the evolution of research on attitude.

2.3.1. Single process mechanism

The initial approaches to attitude regarded it as single process mechanism and concentrated on the main effect of a variable on attitude. The single process mechanism was based on the belief that any one variable (e.g., emotion or perceived expertise of a source) has a single effect on attitude (Petty, 1997). For instance, it was proposed that happiness increases attitude change due to classical conditioning (Petty & Briñol, 2008). One of the most influential single process theories is known as the Yale approach (Hovland, Janis, & Kelley, 1953). The Yale approach assumes that a sequence of steps resulting in the absorption of the content of a message is required for influencing an individual’s attitude (Petty & Briñol, 2008). Briefly described, this approach studies the conditions under which people’s attitudes are changed when they are exposed to a persuasive message (Reis, 2010). This approach describes the presentation of a persuasive message, after which an individual pays attention and understands the message, before it may lead to attitude change that can last for a long time and result in behavioural changes (McDonald, 1999). The Yale approach model is presented in Figure 2.2.

![Figure 2.2 Yale approach model (adapted from Natunen, 2010)](image)
2.3.2. Dual processes mechanism

Scholars began to challenge the single process mechanism on the basis that it produced inconsistent empirical findings. For instance, one specific variable (e.g., fear) was found to affect attitude in a particular study, but it did not have a significant influence on others or, alternatively, attitude changes were sometimes durable and at other times transitory (Petty & Briñol, 2008). Consequently, researchers started to modify the single process mechanism of attitude. Petty and Briñol (2008) argue that the ideas about duality can be traced to Aristotle’s work who presented emotional versus logical arguments. The most important initial example of this duality was in a classic study by Hovland et al. (1953) which explored the augmenting or discounting cues (characteristics of a message such as how much credible or attractive a source is) versus argument (the effects of message itself) which can increase or decrease attitude change (Kelman & Hovland, 1953).

Another influential work introducing duality in persuasion is Kelman’s study (1958) which distinguishes between internalisation (acceptance of the message arguments) and identification (agreeing because one likes the message). In Kelman’s framework, factors such as high source credibility lead to an agreement because they increase acceptance of the message arguments. Kelman (1958) argues that attitude change in response to an expert source can persist because the change is due to the acceptance of the message; whereas attitude change in response to an attractive source would not persist because the change is due to identification with the message rather than acceptance of the source (Petty & Briñol, 2008).

In 1968, Greenwald proposed cognitive response theory, which was one of the most important dual process theories. Cognitive response theory considers the role of the
valence of thoughts (favourable or unfavourable thoughts) in influencing attitude (Greenwald, 1968). The key notion of cognitive response theory is that attitude change happens when a person generates favourable thoughts in response to a persuasive message (Harmon, Unni, & Anderson, 2007). In this framework, any variable, like source credibility, can affect people’s attitudes through affecting the favourability of their cognitive reactions to the message (Petty & Briñol, 2008). Cognitive response theory emphasises the relationship between a message and an individual’s thoughts and has become one of the most widely used models in marketing (Millard, 2010). Figure 2.3 illustrates this model of thought processing and its influence on attitude and intention to purchase.

![Figure 2.3 Model of Cognitive response theory (adapted from Millard, 2010)](image)

The amount of thought a person generates toward a communication intervention was later added to the valence of thought and is considered an important variable in the procedure of influencing attitude (Petty, Ostrom, & Brock, 2014). For instance, if a person generates a greater number of favourable thoughts in response to a communication intervention, the message has a greater effect on attitude (Petty & Briñol, 2008). In general, if any variable such as an emotional message increases information processing (leads to generate a greater amount of thought), it enhances the effect of message quality on an individual’s
attitude. To test the effect of the amount of thought on attitude, Petty, Wells and Brock, (1976) conducted a two (high versus low distraction) × two (strong versus weak argument quality) experiment. The results of this research revealed that when the arguments were strong, high distraction reduced information processing and attitude change.

2.3.3. Multi-process mechanism

Social psychology researchers found many variables that can accelerate, and stall attitude change through influencing the likelihood of an individual’s thoughts in response to a message (e.g., Cacioppo & Petty, 1979; Petty & Cacioppo, 1979; Mackie & Worth, 1989). Therefore, researchers moved away from exploring the effect of one variable on attitude; rather, they started to study the role of moderators affecting attitude and the mechanism of these effects. As a result, new theories emerged in social psychology that aimed to explore variables that could have multiple effects on attitude. The elaboration likelihood model and heuristic systematic model are the most notable multiple-process models which highlight variables that could influence attitude in different ways (Dillard, Meijnders, Dillard, & Pfau, 2002).

The elaboration likelihood model emerged from research conducted by Petty (1977), focusing on why some attitude changes last longer. The elaboration likelihood model describes four ways in which any one variable can influence attitude: serving as a simple cue, serving as an argument, influencing the amount of thought (i.e., the cognitive reaction), and affecting the direction of thinking (i.e., the valence of thoughts) (Briñol & Petty, 2009b). The elaboration likelihood model is a cognitive theory that posits attitude change can be induced through two cognitive routes: a central or peripheral route (Gu et al., 2017). When information or arguments are strong, attitude change occurs through the
central route. When factors related to source characteristics are appealing for the receiver, attitude change occurs through the peripheral route (McAlister & Bargh, 2016). In other words, when a person is highly engaged in information processing and uses high cognitive effort while reading or processing a message, the central route is applied (Shin, Hall, Song, Lee, & Lang, 2016). Individuals use less cognitive effort for processing information when a peripheral route is chosen (Huber, Meyer, Weihrauch, & Weisshaar, 2014).

According to the elaboration likelihood model, simple cues (such as the attractiveness of a message) can serve as arguments (the message itself) when motivation and ability to think are high (Petty & Briñol, 2008). Thus, when an individual generates favourable thoughts to a message, increasing thinking has a greater impact on attitude.

The elaboration likelihood model is a leading attitudinal theory in marketing and consumer behaviour literature (Bagozzi et al., 2002). The elaboration likelihood model outlines the role of peripheral and central routes to attitude change and, thus, has been criticised for preventing multi-channel information processing (Dillard & Pfau, 2002). The elaboration likelihood model has been criticised for theoretical, conceptual and methodological issues such as the imprecision of central and peripheral routes of processing or the influence of involvement on low quality messages (Stephenson, Benoit, & Tschida, 2001). The elaboration likelihood model is presented in Figure 2.4.
Figure 2.4 Elaboration likelihood model (adapted from Smith, 2009)
As an extension of the elaboration likelihood model, Chaiken (1987) explored the hypothesis that attitude change can be the result of effortful thinking, specifically the level of attention to a task. The heuristic systematic model is another cognitive processing model that suggests two routes to attitude (Petty & Briñol, 2008). As opposed to the elaboration likelihood model that suggests two routes of information processing (i.e., central and peripheral routes), the heuristic systematic model is based on the belief that information processing can happen jointly or in parallel (Cameron, 2009). The heuristic systematic model proposes two modes - heuristic and systematic - of information processing in the attitude change mechanism, as shown in Figure 2.5 (Chen et al., 1999). Whereas heuristic processing requires less effortful thinking, systematic mode demands a more cognitive effort (Maheswaran, Mackie, & Chaiken, 1992). Both the elaboration likelihood model and heuristic systematic model hold that any one variable can affect attitude through different processes in different situations (Petty & Briñol, 2008). The heuristic systematic model has been criticised for the dichotomisation of information processing (Reimer, Mata, Katsikopoulos, & Opwis, 2005).

![Heuristic systematic model](adapted_from_Kim_Paek_2009)

Figure 2.5 Heuristic systematic model (adapted from Kim & Paek, 2009)
2.3.4. Metacognitive process, the main gap between tourism and social psychology

Social psychology scholars have noted that the theories of attitude in the single and dual process mechanisms focus on primary or first-order cognition (Briñol & Petty, 2009a). An individual’s thought about an object with some attributes or feeling is referred to as primary cognition which occurs at a direct level of cognition (McGuire & McGuire, 1991). Petty et al. (2002) introduced secondary cognition or second-order cognition and termed this process as metacognition in a new theoretical framework called the self-validation hypothesis. This theory emphasises the role of thought confidence. Metacognition is considered a second-order cognition because it refers to the reflections on the first-order thoughts or thinking about primary thoughts (Briñol et al., 2006). Accordingly, this theory proposes that when individuals report their thoughts regarding a message, they need to think again about their thoughts (have secondary thoughts) to explain how confident they are in their thinking. Thought confidence refers to “a sense of conviction or validity regarding one’s thoughts” (Petty et al., 2002, p. 724). This theoretical framework emphasises the role of confidence people have in their thoughts, ranging from extreme confidence to extreme doubt in their validity (Briñol & Petty, 2009a). Metacognition is important because the greater the confidence in thought, the greater its impact on attitude is (Tormala et al., 2007). The key notion of the self-validation hypothesis is that generating thoughts is not enough for influencing attitude, rather people need to feel confident in their thoughts to influence their attitude towards an object (or destination). This means two people may have the same thoughts, but the amount of confidence in their thoughts predicts their attitude (Briñol & Petty, 2015; Briñol et al., 2012; Evans & Clark, 2012). According to the self-validation hypothesis,
any one variable can affect attitude by influencing the amount and valence of thoughts and confidence in thinking (Petty et al., 2002).

Initial research on the self-validation hypothesis indicated that when positive thoughts toward a message dominated, increasing thought confidence led to an increase in attitude change. The reverse results were found when negative thoughts dominated (Petty et al., 2002). The self-validation hypothesis holds that when people are more confident in the validity of thoughts, confidence affects attitude more, with the reverse effect experienced when they feel less confident in their thoughts (Briñol et al., 2004). Thus, the self-validation hypothesis contends that thought confidence has the capacity to increase or decrease attitude change. In other words, when people’s confidence in their thoughts increases, they rely more on their thoughts in forming an attitude. Prior research has identified potential variables that can affect thought confidence and subsequent attitude which is discussed in the following section.

2.3.4.1. Factors affecting thought confidence

This section discusses the self-validation hypothesis studies conducted to examine the role of thought confidence in explaining attitude. These studies can be categorised into two groups: source and recipient effects (Briñol & Petty, 2009b). Source effects refer to the impact of characteristics of a message source on thought confidence and attitude. Recipient effects include the influence of recipient variables like emotion or personality of an individual on thought confidence and attitude. Source and recipient effects in the self-validation hypothesis literature are indicated in Table 2.1 and a summary of the self-validation hypothesis studies is presented in Appendix A.
Source effects. Source credibility is the perceived expertise and trustworthiness of a message (Kelman & Hovland, 1953). It is one of the most studied variables in the self-validation hypothesis literature (e.g. Briñol et al., 2004; Tormala et al., 2006; Tormala et al., 2007; Clark & Evans, 2014). In an initial demonstration of the effect of source credibility on thought confidence and attitude, Briñol et al. (2004) designed two studies to explore consumers’ thoughts toward an advertisement on a new cellular phone. Briñol et al.’s research indicates that increasing confidence in positive thoughts enhanced advertisement effectiveness. In addition, source credibility affects consumers’ attitudes by influencing their thought confidence. Other social psychology researchers found that people’s positive thoughts toward a message and high source credibility lead to a more favourable attitude (Tormala et al., 2006). Tormala et al. (2006) found that high source credibility can increase or decrease attitude change, depending on the nature of thoughts towards the message.

Researchers have also explored whether a persuasive message affects thought confidence when source information (source credibility) follows the message or precedes it (Tormala et al., 2007). The findings indicated that the effect of source credibility on thought confidence is dominant when source information follows the message. In a similar research study, scholars conducted three experiments to investigate the effects of source credibility on thought confidence depending on the position of advocacy (Clark & Evans, 2014). The findings of the research revealed that when messages were pro-attitudinal (i.e., agreeable), highly credible sources elicited greater confidence and attitude because participants were more motivated to confirm their thoughts.
The self-validation hypothesis researchers have also investigated the impact of source majority versus minority status, whether a message is endorsed by a majority or a minority of other people, on thought confidence (Horcajo, Petty, & Briñol, 2010). Researchers found that the majority status of the source (stimuli) increased participants’ thought confidence. Further, researchers studied the effect of a message versus the messenger (the source or the issue of a message) on attitude and found that when participants focused on the source, highly motivated participants were more confident in their thoughts and, those who focused on the issue, their thought confidence was higher when perceived credibility was high (Clark et al., 2013). Social psychologists have also investigated the effect of group entitativity - that is, the influence of the cohesiveness of a group - on attitude. They found that participants rated a highly entitative group as more likely to present valid information and they were more confident and had attitudes that were more reflective of their message-related thoughts when source entitativity was higher (Clark & Thiem, 2015).

Recipient effects. The self-validation hypothesis scholars have examined the impact of a number of recipient effects - such as thinking, bodily responses, emotion, power and anger - on thought confidence and attitude. For instance, Tormala et al. (2002) investigated the effect of ease of retrieval, that is, the ease of generating thoughts, on thought confidence and attitude. Results indicated that ease of retrieval occurs under the high-elaboration condition and people are more influenced by their thoughts and this is mediated by their thought confidence. Another study investigated the effect of mere thought (i.e., more time to think leads to produce more attitude-consistent thoughts) on thought confidence and attitude. Clarkson et al. (2011) found similar results for the mediating role of thought confidence in the relationship between mere thought and
attitude. In a recent study on the effect of origin of thoughts on thought confidence and attitude, researchers indicated that internal thoughts (i.e., thoughts come from the self) are considered to be valid and, thus, have a stronger impact on attitude formation than those coming from others (external sources) (Gascó, Briñol, Santos, Petty, & Horcajo, 2018). Further, this research indicated that thought confidence reported in the internal origin condition did not differ from the external one.

The self-validation hypothesis has also been applied in body posture studies. For instance, Briñol & Petty (2003) conducted four experiments to explore the effect of thought confidence on head movement. During the experiments, participants were asked to nod or shake their head while listening to a persuasive message. Researchers found that when the message arguments were strong, nodding the head showed more thought confidence and attitude change than shaking. A similar research on the impact of behavioural responses on attitude indicated that valence of thoughts affects attitude significantly greater when participants write their thoughts in the confident (sitting down with their back erect and pushing their chest out) than in the doubtful (slouched forward with their back curved) posture and these postures affected participants’ thought confidence (Briñol, Petty, & Wagner, 2009c). These studies highlight the importance of metacognitive processes in the embodiment.

Psychology researchers have also investigated the role of self (evaluation of oneself) in thought confidence and attitude. Self-affirmation, an individual’s positive feeling about oneself, is one example of evaluation of oneself. Briñol et al. (2007b) found that self-affirmation can decrease information processing when induced prior to message reception and affects thought confidence and the subsequent attitude. Connected to this, the self-
validation hypothesis scholars explored how source attributes elicit different levels of confidence depending on participants’ levels of self-monitoring, which involves adjusting behaviour to fit social environment (Evans & Clark, 2012). The results indicated that self-monitoring was found to interact with source manipulation to influence thought confidence and attitude. Another recipient effect relevant to the evaluation of oneself is the fear of invalidity, which refers to the extent to which people are apprehensive about being incorrect in their judgments (Clarkson et al., 2013). Clarkson et al. (2013) found that fear of invalidity heightens reflection on attitude-inconsistent thoughts. Heightened reflection affected individuals’ thought confidence to determine whether attitude-inconsistent thoughts were assimilated or refuted. The results of the study highlighted the importance of thought confidence in the assimilation and refutation of self-generated thought.

Emotional states have also been studied in the self-validation hypothesis literature. For example, in an attempt to examine the effect of the valence of emotions on attitude, researchers found that emotion can affect people’s evaluative judgements by influencing their thought confidence and people who felt happy reported more thought confidence (Briñol et al., 2007a). Power is another emotional state which was found not to affect mood, but impact individuals’ thought confidence and attitude (Briñol, Petty, Valle, Rucker, & Becerra, 2007c). When people are led to believe that they are in a high-power role, their power increases their thought confidence and argument quality affects attitude more. Social psychology researchers have also explored the self-validating role of anger in two experiments on the effect of driving situation (neutral vs. provoking) on driving anger (Blankenship, Nesbit, & Murray, 2013). Researchers found that participants higher
in driving anger showed more thought confidence in a provoking situation and their thought confidence mediated the effect of anger on aggressive driving intentions.

Table 2.1 Source and recipient effects in the self-validation hypothesis literature

<table>
<thead>
<tr>
<th>Source effects</th>
<th>Author(s)</th>
<th>Recipients effects</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tormala et al. (2006)</td>
<td></td>
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<tr>
<td></td>
<td>Tormala et al. (2007)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Clark &amp; Evans (2014)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Briñol et al. (2009c)</td>
</tr>
<tr>
<td>Message versus the messenger</td>
<td>Clark et al. (2013)</td>
<td>Emotion</td>
<td>Briñol et al. (2007a)</td>
</tr>
<tr>
<td>Group entitativity</td>
<td>Clark &amp; Thiem (2015)</td>
<td>Self-affirmation</td>
<td>Briñol et al. (2007b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power</td>
<td>Briñol et al. (2007c)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mere thoughts</td>
<td>Clarkson et al. (2011)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-monitoring</td>
<td>Evans &amp; Clark (2012)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anger</td>
<td>Blankenship et al. (2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fear of invalidity</td>
<td>Clarkson et al. (2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Origin of thoughts</td>
<td>Gascó et al. (2018)</td>
</tr>
</tbody>
</table>

2.4. Effect of emotion and source credibility on attitude

This thesis investigates the impact of tourism marketing stimuli characteristics on attitude. In particular, the effect of emotion and source credibility on visitors’ attitudes are explored in this research. Accordingly, the following sections review the relevant literature on emotion and source credibility and their impact on attitude.
2.4.1. Definition of emotion

Emotion is not a simple phenomenon and there is no common consensus on a definition of this concept (Hamilton, 2014; Li et al., 2015; Mulligan & Scherer, 2012). Since the theories of emotion have evolved over the years, the definition of emotion has also varied over time (Solomon, 1993). Keltner and Gross (1999, p. 468) define emotion as “episodic, relatively short-term, biologically based patterns of perception, experience, physiology, action, and communication that occur in response to special physical and social challenges and opportunities”. In contrast, other scholars have sought to define emotion as “non-instrumental behaviours and non-instrumental features of behaviour, physiological changes, and evaluative, subject-related experiences, as evoked by external or internal events” (Frijda, 1986, p. 4).

Emotion, affect and mood are often used interchangeably in the literature (Ma, 2013). However, these terms can be separated by considering emotion as a response to a stimulus, whether internal or external, which leads to changes in the individual’s experience, behaviour and physiology (Palmer & Alfano, 2016). Moods are usually states with low intensity and last longer than emotions (Li et al., 2015). Affect, an umbrella term which covers other terms like emotion, feeling and mood (Li et al., 2015; Ma, 2013), seeks to describe an internal feeling state (Cohen, Pham, & Andrade, 2008) that is inclusive of different emotions which each are distinguished by the level of valence, arousal and sign (Palmer & Alfano, 2016).
2.4.2. Approaches to study emotion in tourism

Researchers in the marketing and tourism fields use two main categories to describe emotions, the basic and dimensional approaches (Hadinejad et al., 2019b). The basic approach, otherwise known as the categorical approach (Ma, 2013; Watson & Spence, 2007) or discrete approach (Lopatovska & Arapakis, 2011), proposes six or more basic emotions including happiness, sadness, anger, fear, disgust and surprise. Several scales in psychology belong to the basic approach such as the differential emotions scale (Izard, 1977), the circular models of emotions (Plutchik, 1980) and consumption emotions set (Richins, 1997). There is a lack of consensus on the number of emotions listed in these scales. For instance, the differential emotions scale identifies ten basic emotions; the circular model of emotion recognises eight basic emotions; and, consumption emotion set, which is related to consumption experiences, identifies 16 emotions (Li et al., 2015; Ma, 2013).

The dimensional or continuous approach to emotion attempts to identify two or more dimensions to differentiate emotions from one another (Shen & Morris, 2016). The two major dimensions used to distinguish emotions are valence and arousal (Hadinejad et al., 2019b). Valence indicates pleasantness (positive or negative) and arousal refers to the activation of an emotion (active or passive) (Kim & Fesenmaier, 2015). The circumplex model of emotion (Watson & Tellegen, 1985), the pleasure-arousal-dominance model of emotion (Russell, 1980) and the positive affect negative affect schedule (Watson, Clark, & Tellegen, 1988) are dimensional approaches applied in the tourism and marketing fields. Numerous studies have applied the dimensional approach and supported the role of emotion in consumption experience (Chamberlain, & Broderick, 2007). For instance,
scholars have developed the net emotional response strength which is part of the positive affect negative affect schedule to explore the role of emotions in decision-making and attitude towards advertisement (Trujillo, 2008). While the dimensional approach is more popular in the advertising literature (Li et al., 2018a), previous tourism scholars have applied both approaches which provide a better understanding of the type, intensity and valence of emotions experienced (e.g., Mura, 2010; Tucker, 2009; Hadinejad et al., 2019b; Brodien Hapairai et al., 2018).

In addition to the basic and dimensional approaches to emotions, tourism scholars have applied novel methods to study emotions such as the cognitive appraisal theory and experience sampling method (Ma, 2013; Cutler, Carmichael, & Doherty, 2014). The cognitive appraisal theory attempts to explain the elicitation of emotions in addition to the influence of emotions on behaviour (Watson & Spence, 2007). A core tenet of the cognitive appraisal theory is that emotions are elicited due to an individual’s evaluation of an external stimulus (Ma, Gao, Scott, & Ding, 2013). The cognitive appraisal theory emphasises the role of cognition in the process of emotion elicitation (Moors, 2012). The cognitive component specifies which stimuli lead to an emotion, which emotion should be produced and also determines the intensity of emotion (Moors, 2009). The cognitive appraisal theory has been recommended for investigating emotion in consumer behaviour (Watson & Spence, 2007). The experience sampling method captures real-time emotional experiences over time (Hektner, Schmidt & Csikszentmihalyi, 2007). The experience sampling method applies self-reports to investigate individuals’ experiences throughout a given period (Courvoisier, Eid & Lischetzke, 2012). However, there are few studies in tourism which apply the experience sampling method to examine real-time experiences (Birenboim, Reinau, Shoval & Harder, 2015). The experience sampling method requires
collecting data in a natural real-world environment over a specific period of time (Quinlan Cutler, Doherty & Carmichael, 2018). Further information on the various perspectives used to study emotion is presented in Table 2.2.

### Table 2.2 Approaches to study emotion

<table>
<thead>
<tr>
<th>Approach</th>
<th>Theory/Scale</th>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The basic emotion/categorical/discrete</td>
<td>Differential emotions scale</td>
<td>Izard (1977)</td>
<td>Ten basic emotions: guilt, shame/shyness, fear, contempt, disgust, anger, distress, surprise, enjoyment and interest</td>
</tr>
<tr>
<td></td>
<td>The circular models of emotions</td>
<td>Plutchik (1980)</td>
<td>Eight basic emotions: surprise, expectancy, disgust, acceptance, sadness, joy, anger and fear</td>
</tr>
<tr>
<td></td>
<td>Consumption emotions set</td>
<td>Richins (1997)</td>
<td>16 basic emotions: anger, discontent, worry, sadness, fear, shame, envy, loneliness, romantic love, love, peacefulness, contentment, optimism, joy, excitement and surprise</td>
</tr>
<tr>
<td>Dimensional/continuous</td>
<td>The circumplex model of emotion</td>
<td>Watson &amp; Tellegen (1985)</td>
<td>Emotions are illustrated on two orthogonal axes: high positive affect-low positive affect and high negative affect-low negative affect</td>
</tr>
<tr>
<td></td>
<td>The pleasure-arousal-dominance model of emotion</td>
<td>Russell (1980)</td>
<td>Emotion has three dimensions: pleasure-displeasure, arousal-non-arousal, dominance-submissiveness</td>
</tr>
<tr>
<td></td>
<td>The positive affect negative affect schedule</td>
<td>Watson et al. (1988)</td>
<td>Two dimensions of emotions are positive or negative and they are high or low in activation</td>
</tr>
<tr>
<td>Cognitive appraisals</td>
<td>Cognitive appraisal theory</td>
<td>Lazarus (1984)</td>
<td>Emotions are elicited as a result of a process of cognitive appraisal of a stimulus</td>
</tr>
<tr>
<td>Experience sampling</td>
<td>Experience sampling method</td>
<td>Cutler et al. (2014)</td>
<td>This method captures real-time emotional experiences over time in a natural real-world environment</td>
</tr>
</tbody>
</table>
2.4.3. **Measurement of emotion**

Selecting an appropriate method for the measurement of emotion is critical to collecting reliable and valid data. The extant tourism literature overwhelmingly uses self-report surveys to measure emotional responses to marketing stimuli (Chiou et al., 2011). Such self-report methods evaluate cognitive and affective responses based on recollected emotional experiences (Robinson & Clore, 2002). Self-report measurement of emotional responses is simple and inexpensive. However, critics of this approach suggest that the retrospective reflection of self-report measurements may not reflect or be representative of an individual’s actual emotional responses (Robinson & Clore, 2002; Hadinejad et al., 2019b; Mauss & Robinson, 2009; Hetland et al., 2018). Firstly, the time between when emotions are elicited and when participants report them leads to recall inaccuracy. Self-report data are also subject to cognitive bias and tend to reinforce positive self-description (Brodien Hapairai et al., 2018). Moreover, a self-report questionnaire cannot measure emotions continuously in real-time, such as when respondents are exposed to video stimuli (Li et al., 2018b) as they are subconscious and non-discrete (Poels & Dewitte, 2006). Emotions have a dynamic architecture and those from a particular recalled moment can seldom be reported (Scherer, 2009). Emotional responses evoked by commercials are usually short-lived (Mano, 1996) and, thus, self-report surveys may not be able to report affective reactions accurately.

In response to the criticism against the self-report measurements of emotions, researchers have turned to physiological techniques to assess emotional responses (Li et al., 2018b; Hetland, Vittersø, Fagermo, Øvervoll, & Dahl, 2016; Stadler, Jepson, & Wood, 2018; Wilhelm & Grossman, 2010; Bagozzi, Gopinath, & Nyer, 1999; Healey & Picard, 2005).
There are a number of physiological techniques available for use as alternatives to the self-report measurement of emotion. These include facial electromyography, electrodermal activity, and facial action coding system (Chittaro & Sioni, 2014; Li et al., 2018b; Kreibig, 2010). Electromyography measures the electrical impulses involved in the contraction of the facial muscle (Mauss & Robinson, 2009) but can only measure the valence of emotions (Bolls et al., 2001). Skin conductance, which is a tool to measure electrodermal activity, is an effective technique to assess emotions (Khalfa et al., 2002). When respondents are exposed to a stimulus, activation of their autonomic nervous system leads to sweat gland activity and a resultant change in skin conductivity (Grabe et al., 2000). Thus, changes in skin conductance indicate an individual’s level of arousal towards the stimulus (Kroeber-Riel, 1979). The facial action coding system is used to capture changes in facial expressions and hence identify the basic emotions expressed (Kline, Neumann, Hall, & Capito, 2017). FaceReader is a facial action coding system software used to identify facial expressions and for measurement of emotions elicited in response to a marketing stimulus (Kayser, 2017). FaceReader allows continuous measurement of six basic emotions; happiness, sadness, anger, fear, disgust, and surprise (plus neutral), as well as emotional arousal and valence (Zaman & Shrimpton-Smith, 2006).

Increasingly, scholars are becoming aware that physiological techniques can be used in combination with existing self-report measures to explore elicitation of emotion in advertisements, and the marketing and tourism fields more broadly (Kim & Fesenmaier, 2015). Connected to this, there has been a growing emergence of studies in tourism that has adopted physiological technologies (e.g., Brodien Hapairai et al., 2018; Shoval et al., 2018; Scott, Green, & Fairley, 2016; Wang & Sparks, 2016; Li, Huang, & Christianson,
The efficacy of physiological technologies in measuring emotions such as skin conductance, facial electromyography, and FaceReader has been assessed in tourism studies; however, scholars note more research is required in this area (Hetland et al., 2018; Kim et al., 2014; Li et al., 2018a).

2.4.4. Effect of emotion on attitude

Emotion as an evaluative construct can affect individuals’ attitudinal judgements (Hosany & Prayag, 2013). Emotional responses evoked by advertisements are predictors of a positive attitude and intention to purchase (Niazi et al., 2012). That said, in a tourism context, advertisement-evoked emotions induce a positive attitude towards the marketing content and influence intention to visit a destination (Li et al., 2018b; Wang et al., 2017). Moreover, tourism scholars found that emotions evoked by marketing stimuli influence vacation choice and mental images of a destination (Kim et al., 2014; Walters, Sparks, & Herington, 2012). Similarly, emotional responses of tourists’ visions of their future vacation influence their behavioural intentions (Neelamegham & Jain, 1999).

Emotions affect attitude through affecting an individual’s thoughts and beliefs (Edell & Burke, 1987). Previous literature has indicated that stimuli-induced emotions influence the amount of thought individuals generate and subsequently impact their attitude towards the message (Moore & Harris, 1996; Wyland & Forgas, 2007). Emotional states interfere with cognitive capacity and subsequently have an impact on an individual’s attitude (Mackie & Worth, 1989). Connected to this, the self-validation hypothesis researchers have articulated that message characteristics tend to influence an individual’s need for cognition which refers to one’s effortful thinking and subsequent attitude (Brinol et al., 2004). That said, message characteristics such as emotive aspects can influence the
amount of thought generated in response to a stimulus and the following attitude. In this regard, the feeling-as-information framework suggests that emotional stimuli have a stronger effect on attitude through influencing cognitive effort compared to a non-emotional message (Chartrand et al., 2006; Moons & Mackie, 2007).

In addition, according to the hedonic contingency view, emotions elicited in response to a message have a tendency to influence attitude through affecting the valence of thoughts (Hirt et al., 2008). In other words, individuals in a happy mood are sensitive to the hedonic implications of messages they encounter and thus the valence of their thoughts influences their attitude towards the source. Early research clearly shows that individuals report more favourable thoughts in response to messages which elicit positive emotional states (Wegener, Petty, & Smith, 1995). Connected to this, social psychology researchers have indicated that individuals generate more favourable thoughts and attitude in the strong argument and emotional state experimental conditions (Briñol et al., 2007a).

Social psychologists have also argued that similar to the amount and valence of thoughts, thought confidence is influenced by message characteristics (Tormala et al., 2006). Emotional states can affect thought confidence with individuals having positive emotions being more certain and confident (Tiedens & Linton, 2001). Briñol et al. (2007a) argue that emotive features of a message have an impact on thought confidence. That is to say, emotional messages lead to higher confidence in thoughts and favourable attitude compared to a non-emotional stimulus. Prior self-validation hypothesis literature has mainly investigated the effect of the amount of thought, valence of thinking and thought confidence on attitude when the valence of emotions elicited by a message was manipulated. However, tourism scholars have noted that both dimensions of emotion,
valence and arousal, are positively related to attitude towards a tourism marketing stimulus (Li et al., 2018a).

2.4.5. **Different levels of source credibility in tourism**

The tourist experience is not only influenced on-site; it is also affected in different phases of experiencing a destination: anticipation, travel-to, on-site, travel-back, and recollection (Hammitt, 1980). Although tourism scholars have emphasised the importance of managing the holistic experience to allow visitors to have the most satisfying experience possible, the anticipation stage has been less studied (Moyle & Croy, 2009). In the pre-visit stage, potential tourists’ experiences and evaluation of a destination are influenced by the information they receive from marketing stimuli and communications which affect their travel planning process substantially (Sparks, & Pan, 2009). The media plays a momentous role in creating tourists’ pre-visit experiences and hence influences their perceptions of a tourism destination (Walters, Mair, & Lim, 2016). Gunn (1972) was one of the first researchers to discuss the credibility of persuasive communications and their impact on an individual’s evaluation of a destination. There are three agents or sources that convey different levels of credibility and thus can influence potential tourists’ evaluations of a destination in the pre-visit stage; organic, induced and real (Tham et al., 2013).

Online reviews, WOM, reports, news articles and online communities which exhibit general life experiences are examples of organic agents and are perceived to be highly credible (Park, Lee, & Han, 2007; Dickinger, 2011). Induced agents are the information provided by destination marketers (Tham et al., 2013). They are often viewed as contrived sources and can, therefore, have lower credibility among consumers than organic sources.
Real agents are those from the actual experiences and visitation in a destination (Jenkins, 1999). While organic agents influence motivation and build emotive associations with the place, induced agents are used for functional perceptions of a destination and can impact expectations of a location (Croy & Wheeler, 2007).

2.4.6. **Impact of source credibility on attitude**

The effect of source credibility on attitude is widely established in psychology and tourism literature. Credibility is a critical component of communication which has a significant effect on an individual’s thinking and subsequent attitude (Briñol & Petty, 2015). Briñol et al. (2004) argue that source credibility can influence the perceived validity of the information in an advertisement. Information from a highly credible source, such as the Washington Post, is perceived more believable and accurate than the same information coming from a low credible source (Kaufman, Stasson, & Hart, 1999). This is in line with Gunn’s (1994) organic and induced agents which convey different levels of perceived credibility. In fact, high credibility sources have typically been found to impact attitude more than low credible messages (Pornpitakpan, 2004). Connected to this, researchers have demonstrated that high source credibility results in a more favourable attitude (Tormala et al., 2006).

Travel-related products involve risk due to the intangibility of tourism services (Loda et al., 2009). Therefore, tourists seek information as a risk reduction strategy and higher credible sources lead to lower perceived risk. Source credibility is a strong predictor of the type of information used in the particular context of travel information search which can affect tourists’ overall attitude and behavioural intentions toward a specific destination (Kerstetter & Cho, 2004). The credibility of user-generated content on social
media has a tendency to influence tourists’ evaluations of a place, attitude towards, and consideration of a holiday destination (Shu & Scott, 2014). In addition, the credibility of travel-related user-generated content influences attitude and the travel planning process (Ayeh et al., 2013). Tourism scholars have indicated that destination source credibility along with destination image affect perceptions of destinations (Veasna et al., 2013).

Source factors, such as source credibility, can influence attitude by influencing cognitive and metacognitive thinking, i.e., the amount and direction of thoughts, and the confidence individuals have in their thoughts (Briñol & Petty, 2015). Source credibility can bias an individual’s thoughts generated in response to a message (Tormala et al., 2007). Consistent with the predictions of theories of attitude such as the elaboration likelihood model and heuristic systematic model, the perceived credibility of a message determines the amount of thinking (Tormala et al., 2006). When individuals are exposed to an advertisement, the credibility of the information presented in the advertisement influences the amount of thinking that takes place (Briñol et al., 2004). Highly credible sources have a stronger impact on the amount of thought an individual generates in response to a stimulus and subsequent attitude compared to low credible information (Tormala et al., 2006). That said, under high source credibility conditions, individuals are more motivated to think and are able to generate more thoughts (Briñol & Petty, 2009a).

Source credibility tends to affect attitude through influencing the direction of thoughts that come to an individual’s mind when exposed to an advertisement (Briñol et al., 2004). Performing as a peripheral or heuristic cue, the source credibility of a message can influence the direction of thoughts (Chaiken & Maheswaran, 1994). As one of the most studied source factors in the self-validation hypothesis literature, the perceived credibility
of a message can affect the valence of individuals’ thoughts generated in response to a persuasive communication (Tormala et al., 2007). High credibility sources influence the effect of the valence of thoughts on attitude stronger than a low credible message (Briñol & Petty, 2015). In fact, high source credibility biases individuals’ thinking and results in more favourable thoughts (Briñol & Petty, 2009a; Clark et al., 2013).

Besides the amount and valence of thoughts, source credibility affects attitude by influencing thought confidence, leading individuals to rely on their thoughts generated in response to a message (Briñol & Petty, 2009a). Social psychology research reveals that source credibility determines the confidence individuals have in their thoughts about a message (Horcajo et al., 2010). The logic behind this is the impact of source credibility on the perceived validity of information in a message (Kaufman et al., 1999) and thus has implications for individuals’ thought confidence in response to the message. Under high source credibility conditions, people have more confidence in their thoughts (Tormala et al., 2007). On the other hand, low credibility sources engender a lack of trust in the message and, hence, elicit lower thought confidence in individuals (Clark et al., 2013). Accordingly, it could be concluded that source credibility has an impact on three dimensions of thinking and subsequent attitude.

2.4.7. Effect of music on emotion and attitude formation

The impact of music on cognitive and affective response to advertising is experiencing increasing scholarly attention. Music is considered a creative element in advertisements (Kellaris Cox, & Cox, 1993). The amount of money spent on the composition of musical background in marketing stimuli reflects its importance. Choice of music is also important as different types of music differ in their appeal to different market segments.
For example, the type of music and level of familiarity with the musical stimuli enhance emotional arousal as well as positive emotions (Van Den Bosch, Salimpoor, & Zatorre, 2013). Music is used in marketing stimuli to enhance advertising effectiveness as well as influence a target market’s behavioural intentions (Brown & Volgsten, 2005). Prior scholarly enquiry has shown the significant impact of music in advertising on purchase intent, attitude, stimulus content recall and emotional responses (Oakes, 2007; Park, & Young, 1986).

Compared to a spoken message in commercials, background music enhances brand evaluation and thus can elicit more favourable attitudes (Oakes, 2007). Peripheral cues of marketing messages such as music lead to positive attitudes towards the advertisement (Stout & Leckenby, 1988). Music in tourism advertising tends to influence or change visitors’ attitudes of a destination (Pan & Hanusch, 2011). In addition, music is perceived as an important background feature in marketing stimuli due to its ability to evoke emotional responses (Gorn, 1982). In this regard, researchers argue that a marketing stimulus with music elicits higher levels of emotional responses compared to the same advertisement without music (Morris & Boone, 1998). Further, researchers have shown that exciting music evokes higher levels of emotional arousal as measured via skin conductance and heart rate (Zimny & Weidenfeller, 1963).

2.4.8. Definitions of key terms of the study

The definition of key terms used in the current study is reviewed before moving on to justifying the specific hypotheses. A summary of the key terms and theories applied in this thesis is provided in Table 2.3.
Table 2.3 Definition of key terms

<table>
<thead>
<tr>
<th>Term/Theory</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-validation hypothesis</td>
<td>The self-validation hypothesis is a social psychology hypothesis which highlights the role of confidence people have in their thoughts and contends that thought confidence can strengthen or weaken attitude (Briñol &amp; Petty, 2009b).</td>
</tr>
<tr>
<td>Elaboration likelihood model</td>
<td>The elaboration likelihood model is a cognitive theory from social psychology which postulates attitude change occurs through two routes, a central or peripheral route (Gu et al., 2017).</td>
</tr>
<tr>
<td>Heuristic systematic model</td>
<td>The heuristic systematic model is a cognitive theory from social psychology which posits that attitude change mechanism can be induced through two modes of information processing, the heuristic and systematic modes (Chen et al., 1999).</td>
</tr>
<tr>
<td>Attitude</td>
<td>An individual’s favourable or unfavourable evaluation of objects, issues and events (Newhouse, 1990).</td>
</tr>
<tr>
<td>Thought confidence</td>
<td>“A sense of conviction or validity regarding one’s thoughts” (Petty et al., 2002, p. 724).</td>
</tr>
<tr>
<td>Emotional arousal</td>
<td>Emotional arousal refers to an individual emotional state, either activated or calm (Kim &amp; Fesenmaier, 2015).</td>
</tr>
<tr>
<td>Source credibility</td>
<td>The perceived expertise and trustworthiness of a message (Kelman &amp; Hovland, 1953)</td>
</tr>
<tr>
<td>Organic agents</td>
<td>Organic agents refer to general life experiences and are perceived to be highly credible (Moyle &amp; Croy, 2006).</td>
</tr>
<tr>
<td>Induced agents</td>
<td>Induced agents are based on the information provided by destination marketers and are perceived to be low credible (Tham et al., 2013).</td>
</tr>
</tbody>
</table>

2.5. Research gap

Prior research on visitor attitude has only investigated the role of primary cognition in affecting attitude applying the elaboration likelihood model and heuristic systematic model in tourism (e.g., Tang et al., 2012; Sparks et al., 2013). Thus, tourism literature has
explored the first two dimensions of thinking, that is, the amount and valence of thoughts. Social psychology researchers have suggested that the third dimension of thinking impacts on attitude formation, that is, thought confidence (Petty et al., 2002). Tourism research has not yet investigated the role of thought confidence in attitudinal studies, although it has been emphasised in the broader social psychology literature. Therefore, this study aims to address this gap.

Furthermore, tourism scholars (e.g., Esfandiar et al., 2019; Gao et al., 2016) have criticised the current theories of attitude applied in the visitor literature and, in particular, the dominance of the theory of planned behaviour in shaping the tourism literature on attitude (Sharpley 2014; Hadinejad et al., 2019a). Therefore, the application of new theoretical frameworks and models to explore visitor attitude towards destinations is warranted (Wang, 2016; Gao et al., 2014). Consequently, this thesis adopts a new theoretical perspective for tourism research through exploring the main elements of the elaboration likelihood model, heuristic systematic model and self-validation hypothesis as its theoretical base in an effort to extend the understanding of factors that shape attitude towards a destination.

The self-validation hypothesis researchers have explored the effect of a number of source and recipient factors such as group entitativity, ease of retrieval and self-monitoring on individuals’ three dimensions of thinking and, subsequently, their attitude (Clark & Thiem, 2015; Tormala et al. 2002; Evans & Clark, 2012). Although social psychology researchers have investigated the effect of the valence of emotion on attitude through affecting the amount and valence of thinking and thought confidence (Briñol et al., 2007a), there is lack of research on the impact of emotional arousal on attitude through
the lens of self-validation hypothesis. In addition, although the role of source credibility in affecting thought confidence is well discussed in the self-validation hypothesis literature, a metacognitive analysis of this concept on attitude was neglected in the tourism context. Accordingly, this thesis responds to the call for the investigation of the effect of potential factors on attitude applying the self-validation hypothesis in different contexts and populations (Briñol & Petty, 2015; Clark et al., 2013; Gascó et al., 2018).

Further, although the combined effect of valence of emotions and argument quality (e.g., Briñol et al., 2007a) or source credibility and argument quality (e.g., Tormala et al., 2006) have been assessed in the self-validation hypothesis literature, there has been limited research that explores the effect of emotional arousal and source credibility on attitude. Accordingly, this thesis explores the combined effect of emotional arousal and source credibility on the amount of thought, valence of thinking, thought confidence and attitude.

Finally, this study also has an innovative approach to the development of the stimulus for this research and, specifically, to measure the emotional responses to this stimulus. Previous tourism literature is dominated by self-report surveys to measure emotional responses (Chiou et al., 2011). Although self-report surveys are simple and take less time to administer (Li et al., 2015), they ask participants to report on recollected experiences. In response to the criticism against the application of self-report surveys to measure emotional responses, tourism scholars have turned to physiological technologies (e.g. Li et al., 2018b; Hetland et al., 2016; Stadler et al., 2018; Babakhani et al., 2017). Tourism researchers have noted that more research is needed on the application of physiological technologies to measure emotions, especially on the utility of FaceReader and skin conductance (e.g., Li et al., 2018a; Hadinejad et al., 2019b; Hetland et al., 2018; Hadinejad, Moyle, Kralj, & Scott, 2019c). This study, therefore, embraces new methods
using a combination of psychological measures, as well as self-report approaches, to measure emotional responses to stimulus.

2.6. Conceptual framework and hypotheses development

The first two dimensions of thinking - the amount and valence of thought - are discussed in the elaboration likelihood model and heuristic systematic model. The third dimension of thinking - thought confidence - is discussed in the self-validation hypothesis. This thesis proposes to merge the key elements of the elaboration likelihood model, heuristic systematic model and self-validation hypothesis to explore the effect of the three dimensions of thinking (amount of thought, valence of thought and thought confidence) on attitude, as shown in Figure 2.6. Previous literature suggests that all three dimensions of thinking - the amount and valence of thought as well as thought confidence - have a positive influence on attitude towards a message (Petty et al., 2002; Tormala et al., 2002; Briñol & Petty, 2003; Briñol et al., 2007c; Evans & Clark, 2012). Accordingly, the study proposes the following hypotheses:

Hypothesis 1a (H1a): The amount of thought has a positive effect on attitude.

Hypothesis 1b (H1b): The valence of thoughts positively influences attitude.

Hypothesis 1c (H1c): Thought confidence exerts a positive impact on attitude.
In particular, the effect of the three dimensions of thinking on attitude was tested in a two-by-two experimental design where emotional arousal (high versus low) and source credibility (high versus low) were manipulated. Participants watched a video of Iran with light rhythmic music for the high emotional arousal condition. Participants watched a video of Iran without music for the low emotional arousal condition. Participants were led to believe that the video was made by “A solo female traveller who visited Iran in 2017” for the high source credibility condition. Participants were told that the video was made by “A travel agency in Iran for promotional purposes” for the low source credibility condition. Accordingly, four conditions with high or low emotional arousal and high or low source credibility were created (see Section 3.5.1 for further information about each experimental condition).

Having reviewed the extant literature related to these variables, it is generally expected that all three dimensions of thinking (amount, valence and confidence) will positively affect attitude (Briñol et al., 2007a, Briñol et al., 2004; Tormala et al., 2006; Tormala et al., 2007; Clark & Evans, 2014), regardless of the level of emotional arousal or beliefs about source credibility. As such, research hypotheses for each experimental condition are illustrated in Figure 2.7.
Figure 2.7 Research hypotheses in each experimental condition
Accordingly, the following hypotheses are proposed in a *Music-Organic* condition:

Hypothesis 2a (H2a): The amount of thought has a positive effect on attitude in the *Music-Organic* condition.

Hypothesis 2b (H2b): The valence of thoughts positively influences attitude in the *Music-Organic* condition.

Hypothesis 2c (H2c): Thought confidence has a positive impact on attitude in the *Music-Organic* condition.

The following hypotheses seek to test these relationships in a *Music-Induced* condition:

Hypothesis 3a (H3a): The amount of thought positively affects attitude in the *Music-Induced* condition.

Hypothesis 3b (H3b): The valence of thoughts has a positive effect on attitude in the *Music-Induced* condition.

Hypothesis 3c (H3c): Thought confidence has a positive impact on attitude in the *Music-Induced* condition.

This thesis also aimed to test the effect of the three dimensions of thinking on attitude in a *Silent-Organic* condition as in the following hypotheses:

Hypothesis 4a (H4a): The amount of thought positively impacts on attitude in the *Silent-Organic* condition.

Hypothesis 4b (H4b): The valence of thoughts exerts a positive effect on attitude in the *Silent-Organic* condition.
Hypothesis 4c (H4c): Thought confidence has a positive effect on attitude in the *Silent-Organic* condition.

The following hypotheses were formulated to explore the relationships in a *Silent-Induced* condition:

Hypothesis 5a (H5a): The amount of thought has a positive impact on attitude in the *Silent-Induced* condition.

Hypothesis 5b (H5b): The valence of thoughts has a positive effect on attitude in the *Silent-Induced* condition.

Hypothesis 5c (H5c): Thought confidence positively affects attitude in the *Silent-Induced* condition.

Further, this research sought to investigate the difference in the amount of thought, valence of thoughts, thought confidence and attitude across experimental conditions. Previous literature suggests that emotional stimuli lead to more cognitive engagement with a message, elicit more favourable thought and thought confidence, and result in more positive attitudes towards an object (Chartrand et al., 2006; Moons & Mackie, 2007; Wegener et al., 1995; Briñol et al., 2007a; Tiedens & Linton, 2001; Moore & Harris, 1996; Wyland & Forgas, 2007). Further, researchers have found that high source credibility results in higher levels of cognitive effort, evokes more favourable thoughts and confidence in thinking and, finally, leads to more positive attitude towards a message (Briñol & Petty, 2009a; Briñol & Petty, 2015; Briñol & Petty, 2009a; Clark et al., 2013; Tormala et al., 2006; Pornpitakpan, 2004). Accordingly, the following hypotheses seek
to compare *the amount of thought* generated in response to the tourism marketing stimuli of Iran in different experimental conditions:

Hypothesis 6a (H6a): The *Music-Organic* condition elicits a greater amount of thought compared to the *Music-Induced* condition.

Hypothesis 6b (H6b): Participants report a greater amount of thought in the *Music-Organic* condition compared to the *Silent-Organic* condition.

Hypothesis 6c (H6c): Participants generate a greater amount of thought in the *Music-Organic* condition compared to the *Silent-Induced* condition.

Hypothesis 6d (H6d): The *Music-Induced* condition elicits a greater amount of thought compared to the *Silent-Organic* condition.

Hypothesis 6e (H6e): The *Music-Induced* condition evokes a greater amount of thought compared to the *Silent-Induced* condition.

Hypothesis 6f (H6f): Participants generate a greater amount of thought in the *Silent-Organic* condition compared to the *Silent-Induced* condition.

This thesis also compares *the valence of thoughts* evoked by the tourism marketing stimuli of Iran in different experimental conditions as in the following hypotheses:

Hypothesis 7a (H7a): Participants have more favourable thoughts in the *Music-Organic* condition compared to the *Music-Induced* condition.

Hypothesis 7b (H7b): Participants report more favourable thoughts in the *Music-Organic* condition compared to the *Silent-Organic* condition.
Hypothesis 7c (H7c): The Music-Organic condition elicits more favourable thoughts compared to the Silent-Induced condition.

Hypothesis 7d (H7d): The Music-Induced condition elicits more favourable thoughts compared to the Silent-Organic condition.

Hypothesis 7e (H7e): Participants report more favourable thoughts in the Music-Induced condition compared to the Silent-Induced condition.

Hypothesis 7f (H7f): The Silent-Organic condition evokes more favourable thoughts compared to the Silent-Induced condition.

The following hypotheses were formulated to compare the confidence individuals hold in their thoughts about Iran as a potential tourism destination across experimental designs:

Hypothesis 8a (H8a): Participants generate greater levels of thought confidence in the Music-Organic condition compared to the Music-Induced condition.

Hypothesis 8b (H8b): Participants report greater levels of thought confidence in the Music-Organic condition compared to the Silent-Organic condition.

Hypothesis 8c (H8c): The Music-Organic condition elicits greater levels of thought confidence compared to the Silent-Induced condition.

Hypothesis 8d (H8d): Participants have greater levels of thought confidence in the Music-Induced condition compared to the Silent-Organic condition.
Hypothesis 8e (H8e): The *Music-Induced* condition evokes greater levels of thought confidence compared to the *Silent-Induced* condition.

Hypothesis 8f (H8f): Participants have greater levels of thought confidence in the *Silent-Organic* condition compared to the *Silent-Induced* condition.

And finally, the following hypotheses are proposed to compare *attitude* towards Iran as a tourism destination across experimental conditions:

Hypothesis 9a (H9a): Participants generate a more favourable attitude in the *Music-Organic* condition compared to the *Music-Induced* condition.

Hypothesis 9b (H9b): The *Music-Organic* condition elicits a more favourable attitude compared to the *Silent-Organic* condition.

Hypothesis 9c (H9c): The *Music-Organic* condition evokes a more favourable attitude compared to the *Silent-Induced* condition.

Hypothesis 9d (H9d): Participants report a more favourable attitude in the *Music-Induced* condition compared to the *Silent-Organic* condition.

Hypothesis 9e (H9e): The *Music-Induced* condition elicits a more favourable attitude compared to the *Silent-Induced* condition.

Hypothesis 9f (H9f): Participants report a more favourable attitude in the *Silent-Organic* condition compared to the *Silent-Induced* condition.
2.7. Summary

This chapter provides relevant literature to visitor attitude towards tourism destinations. The literature on visitor attitude indicates that tourism researchers have criticised the current theories of attitude applied in the field and therefore called for the application of new theoretical frameworks from other disciplines to study this concept. Accordingly, the historical development of theories of attitude in social psychology was reviewed to find the gap between this discipline and tourism. An overview of the evolution of the theories of attitude in social psychology reveals that single and dual process mechanisms of attitude were introduced first and then multiple processes were presented such as the elaboration likelihood model and heuristic systematic model. Chapter 2 indicates that although theories of attitude from social psychology like the elaboration likelihood model and heuristic systematic model have been applied in tourism, the recent theoretical development, the self-validation hypothesis, has been understudied by tourism scholars. This section is followed by the source and recipient factors affecting thought confidence, the key tenet of the self-validation hypothesis.

This chapter also discusses that social psychologists have called for the investigation of additional variables with the potential to affect thought confidence in different contexts and populations. Accordingly, marketing stimuli characteristics such as emotion and source credibility and their impact on attitude are discussed. Chapter 2 presents the research model which is theoretically underpinned by the theories of attitude from social psychology, the elaboration likelihood model, heuristic systematic model and self-validation hypothesis, followed by hypotheses which were developed based on literature.
The next chapter discusses the research design and justifies the research methodology for investigating the hypotheses and relationships proposed in the research model. Chapter 3 presents the research paradigm and explains the stages of the thesis to collect data.
CHAPTER 3

METHODOLOGY

3.1. Introduction

This chapter presents an overview of the research methodology for this thesis. This methodology seeks to investigate Australian visitors’ thoughts and attitudes towards Iran as a tourism destination. A discussion on research paradigms in social science is presented followed by indicating the paradigm by which this thesis is guided. Further, a review of previous research designs used in the self-validation hypothesis literature is discussed. The chapter presents the research design of this thesis consisting of two stages: (1) Iran tourism advertisement development and (2) the experiments; to test the study’s hypotheses. These stages include a variety of data collection methods including Delphi panel, focus group, physiological measures, interviews and questionnaire. Each of these methods is described in detail in this chapter. Data analysis techniques are also explained in this chapter. Considerations of ethical issues relevant to this research are also presented.

3.2. Research paradigm

A research paradigm is a set of concepts, assumptions, and values about the world that guides the behaviour of researchers (Bryman, 2008). Therefore, a research paradigm reflects researchers’ worldviews and beliefs of the nature of a phenomenon that steers the way to approach and solve a problem (MacPherson, 1983; Bryman, 2008). Ontology, epistemology, axiology and methodology are regarded as the components of a research
paradigm (Salvador, 2016; Klenke, 2008). These components assist the researcher in understanding the research paradigm.

Ontology is defined as “an explicit formal specification of a shared conceptualization” (Ming & Jie, 2002). Ontology concerns the nature of being and existence (Denzin & Lincoln, 2000). Epistemology refers to a branch of philosophy which explores the nature of knowledge and it concerns the relationship between the researcher and what is being researched (Capper, 1995; Guba, 1990). Epistemology is about knowledge, and how it is known, its sources and limits (Johnson & Duberley, 2000; Denzin & Lincoln, 2000). Epistemological stance has a significant impact on the selected method to understand the phenomenon under investigation. Axiology shows the ethical and moral values of a researcher (Klenke, 2008). Axiology addresses the nature of ethical behaviour and guides the researchers’ decision making (Killam, 2013). Methodology is a guideline for conducting research and a framework of procedures for a scientific investigation (Amaratunga, Baldry, Sarshar, & Newton, 2002). Methodology is concerned with the deployment and interpretations of the method applied for understanding the phenomenon under investigation (Denzin & Lincoln, 2000). Positivism, post-positivism, constructivism and pragmatism are four social research paradigms that differ from each other in their ontology, epistemology, axiology and methodology (Creswell, 2013; Tashakkori & Teddlie, 1998; Mertens, 2008; Guba, 1990).

Positivists, believing that reality is observable, try to investigate the relationship among variables in their research with an emphasis on quantitative approach and deductive reasoning (Klenke, 2008; Baran & Jones, 2016). Therefore, the ontology and epistemology in positivism assume that reality is objective, and knowledge is acquired
via quantifiable investigation. As for the axiology, positivists believe that research is free from the researcher’s bias and value (Crotty, 1998). Researchers applying a positivist paradigm usually use a theoretical framework for data collection which results in supporting or refuting the theory (Creswell, 2013; Mackenzie & Knipe, 2006). That is to say, quantitative methods such as questionnaire and experiments are commonly applied in positivism.

Post-positivists, who challenge the positivists’ views based on observable experiences, posit that not-observable human experiences such as feeling and thinking are important in conducting research and impeach the generalisation of laws to human studies (Mertens, 2008; Tashakkori & Teddlie, 1998). The post-positivist ontological and epistemological stance asserts that there might be a single reality, but it cannot be fully understood (Creswell, 2013). Therefore, reality can be known imperfectly, within a specified level of probability and is based on human subjectivity (Crotty, 1998). Post-positivists see benefit in employing multiple methods, quantitative and qualitative, for data collection and analysis (Creswell, 2007).

The constructivist paradigm holds that reality is a social construct and knowledge is constructed through experiences (Ponterotto, 2005; Creswell, 2013). According to constructivism, each person has a subjective understanding of their experiences (Creswell, 2013). Constructivism is an inductive approach and seeks to understand the deeper meaning of human behaviour (Baran & Jones, 2016). Accordingly, the ontology of constructivism is relativistic, and its epistemology assumes knowledge consists of mental constructions. Constructivist axiology states that knowledge is proportional, and individuals’ values are important (Guba & Lincoln, 2005). Through the application of
qualitative methods, constructivists study a small number of subjects in which researchers are extensively engaged with participants and focus on their subjective experiences (Bradley & Schaefer, 1998).

Pragmatism challenges the notion that social science can discover the truth (Mertens, 2008). Pragmatists combine positivism and constructivism by allowing researchers to use theories to test research hypotheses and also explore participants’ subjective experiences. This paradigm is based on the belief that knowledge complements experience (Biesta, 2010). Pragmatic ontology and epistemology hold that there is a single reality, but everyone can have their own interpretations and the researcher plays an important role in determining the relationships in research (Klenke, 2008; Mertens, 2008). In other words, there might be different levels of researchers’ values and bias in data collection and analysis. This philosophical stance does not restrict the researchers to use a particular method, but they are free to use both quantitative and qualitative data collection and analysis approaches (Teddlie & Tashakkori, 2003). According to Creswell (2013, p. 176), “The pragmatics argued that a false dichotomy exists between qualitative and quantitative approaches and that researchers should make the most efficient use of both paradigms in understanding social phenomena”. Pragmatists are problem-driven and thus use the research questions to design the study (Jick, 1979). Pragmatism gives the researcher the freedom to select the methods which best suit the questions and objectives (Johnson & Onwuegbuzie, 2004).

The current thesis is in accord with the principles of pragmatism as the research questions are the main drivers of the methodology. Further, the researcher believes that a combination of objective and subjective methods can be applied to achieve the research
objectives. The researcher believes that while qualitative approaches provide a deep understanding of individuals’ experiences, quantitative methods gain objective information. Thus, a combination of methods enables the researcher to have a better understanding of respondents’ experiences. Accordingly, this research employs both qualitative and quantitative techniques including Delphi panel, focus group, physiological measures, questionnaire, interviews and experiments to answer the research questions.

3.3. Research design

This study follows the research design in the self-validation hypothesis literature, therefore studies using this theoretical framework were reviewed to determine an appropriate method for this thesis (see Section 2.3.4.1). A total of 19 studies using the self-validation hypothesis were found, and a review of these studies revealed that the data collection procedure starts by randomly assigning the participants to an experimental condition, for example, a strong or weak argument or high or low source credibility condition (e.g. Briñol et al., 2004; Tormala et al., 2006). Afterwards, participants are asked to list their thoughts, rate their thought confidence on a five or seven-point scale using a Likert scale, and complete the measurement scales of the concepts of the study such as the need for cognition or attitude (e.g. Petty et al., 2002; Tormala et al., 2006) (see research designs in the self-validation hypothesis studies in Appendix B). Briñol et al. (2004) employed advertisements to assess participants’ valence of thoughts, thought confidence and attitude and thus, their study is the most closely aligned with the objective of the current thesis. Accordingly, the data collection procedure in this study is guided by Briñol et al.’s research (2004).
The design of this thesis is presented in Figure 3.1. There are two stages in this study including tourism marketing stimuli development and an experimental design to assess potential Australian visitors’ thoughts and attitudes towards Iran. The first stage was designed to create a mock advertisement of Iran as the marketing stimuli and explored the first research question. A mock advertisement of Iran was created as there were limited tourism stimuli of Iran available to reflect the experimental design of the current study. In Stage I, Delphi panels and focus groups were conducted to identify the images and video segments of Iran which generate emotional arousal and positive emotions in participants. After selecting the visual content, a number of techniques such as FaceReader, skin conductance, questionnaire and post-hoc interviews were applied to assess the source credibility and emotional arousal manipulation.

In Stage II, experiments were used to test the conceptual framework, research hypotheses and explored the second, third and fourth research questions. The second stage aimed to examine the effect of the amount of thought, valence of thoughts and thought confidence on attitude in each experimental condition. The difference in the amount of thought, valence of thoughts, thought confidence and attitude across each experimental design was also assessed. Stage II adopts a quantitative approach to collect and analyse data. Data were collected via an online panel provider and analysed using standard multiple regression analysis and ANOVA using SPSS software (version 22).
Figure 3.1 Current research design
3.4. Stage I: Stimuli development

The aim of Stage I was to manipulate the characteristics of tourism marketing stimuli of Iran. In particular, emotional arousal and source credibility manipulation of tourism stimuli were conducted in the first stage. Iran’s tourism industry has not provided sufficient information to attract potential visitors from all over the world (Mowforth & Munt, 2003; Jalilvand et al., 2012), thus poor advertising might not be helping to stimulate demand. Accordingly, the researcher decided to create mock tourism marketing stimuli of Iran which evoke emotional arousal, positive emotions and have the potential to affect tourist attitudes (Hadinejad et al., 2019c). This was done in a way that none of the participants had watched the video previously and their knowledge about the destination advertisement did not influence respondents (Li et al., 2018b).

3.4.1. Photo and video selection

The tourism marketing stimuli of Iran were created using a panel of experts. In a trip to Iran in April 2017, the researcher conducted an interview with Iranian tourism experts in both academia (six participants) and industry (seven participants) to collect tourism advertising stimuli. The Iranian tourism academics and industry practitioners advised using images from leading tourism photographers and segments of existing videos. The suggested photographers were Mrs. Shirin Tahanan¹, Mr. Hamed Tizrooyan², Mr. Rasool

¹ shirin.cuisine@gmail.com (https://www.instagram.com/shirin.tahanan/)
² h.tizooyan@gmail.com (https://www.instagram.com/hamedtizrooyan/)
Mojahedi\(^3\), and Mr. Mohammad Reza Domiri Ganji\(^4\) (all the photos of the photographers including the images acquired for this thesis are available on Instagram). The researcher approached the four leading photographers in Iran who either are well-known for their photos and have many followers on Instagram or have won global prizes in different international tourism exhibitions. Mrs. Tahanan’s photos included images of Persian/Iranian food. Mr. Tizrooyan is well-known for his photos of nature of Iran. Mr. Mojahedi provided the researcher with the images of tourists in Iran. Mr. Domiri Ganji has won prizes for photos of historical monuments of Iran. Each photographer provided ten images in each category (i.e., food, nature, tourists in Iran and historical monuments), 40 images in total.

In addition, Iranian tourism industry experts provided the researcher with 20 videos. These videos show different tourist attractions in Iran as well as the daily life of Iranians. The videos are available on YouTube. In order to select the best images and video segments which create emotional arousal and positive emotions with the potential to affect potential tourists’ attitudes, two focus groups and Delphi panels were conducted. The procedure of the Delphi panel and focus group is detailed in the following sections.

### 3.4.2. Delphi panels - selection of still images

A Delphi panel was conducted to obtain a consensus among a group of experts (Okoli & Pawlowski, 2004) on the images to be included in the video of Iran. This research method takes its name from the “Oracle of Delphi”, a holy place in Greek mythology, where

\(^3\) rasoolmojahedi@yahoo.com (https://www.instagram.com/rasoolmojahedi/)
\(^4\) newyork3@gmail.com (https://www.instagram.com/domiriganji/)
Apollo was consulted to forecast the future (Du Plessis & Human, 2007). As suggested by the name of this method, the purpose of a Delphi panel is to combine the knowledge of experts to make a judgement/decision on a particular subject (Miller, 2001; Park & Yoon, 2011). Researchers usually need to conduct the Delphi panel over several rounds to reach a consensus on the subject matter (Okoli & Pawlowski, 2004; Beattie & Mackway-Jones, 2004). Delphi panels usually include 10 to 20 members as few new ideas are generated in a group when the size exceeds 30 participants (Pollard & Pollard, 2004).

A purposive sampling was adopted to recruit participants. Purposive sampling refers to “picking cases that are judged to be typical of the population which we are interested in, assuming that errors of judgment in the selection will tend to counterbalance one another” (Judd, Smith, & Kidder, 1991, p. 136). The Delphi panel included industry practitioners and leading tourism marketing scholars from Iran and Australia. The panellists were selected based on their expertise and experience in the field of tourism marketing.

Recruitment of panellists was undertaken via email. The researcher (based in Australia) emailed the Delphi panel members and invited them to participate in a study aiming to select images of Iran. A questionnaire link, created via Qualtrics, was attached at the end of email which guided participants to select images if they agreed to take part. The advantages of online surveys include random selection of participants, quick data collection, obtaining information from wide geographical settings and being time and cost-efficient (Van Selm & Jankowski, 2006; Evans & Mathur, 2005).

The questionnaire asked participants to select the top three images which made them feel excited, joy, wonder, amazed, happy or inspired them to visit Iran. These emotions were selected as a result of a discussion with four tourism marketing experts (supervisory
panel) at Griffith University, Australia. The questionnaire also included a qualitative component where participants had the opportunity to comment, offer advice or justify their decisions (Beattie & Mackway-Jones, 2004; Cole, Donohoe, & Stellefson, 2013; Miller, 2001). The Delphi panel members were advised that the completion of the questionnaire would be taken as their consent to participate in the research. The recruitment form for the Delphi study is illustrated in Appendix C.

Due to the possible high attrition rate of response, a total of 54 experts were initially contacted in August 2017. Forty-one experts responded to the first Delphi. To reach a consensus on the selected images, a second Delphi was conducted in September 2017. The questionnaire in the second Delphi asked participants to drag and drop the images into an order from one to five with the top image indicating the most emotion-evoking photo (e.g., happiness, excitement, joy, wonder or inspired them to visit Iran). The assessment of emotions in the second Delphi was similar to the first one. This questionnaire also included a qualitative component to allow the participants to add comments on the photo selection and justification of their choice. The survey results indicated the top three images selected in the first and second Delphi studies.

3.4.3. Focus groups - selection of moving images

Experts in the Delphi panel suggested the researcher to include either still or moving images of local Iranians and their daily life in a tourism advertisement of Iran. As a result, a focus group was conducted to identify segments of existing videos which illustrate the life of local communities in Iran. A focus group permits the researcher to promote discussion of a topic, find common and diverse views among multiple participants, and generate data based on the synergy of the group interaction (Allbutt, Amos, &
Cunningham-Burley, 1995). The key aim of a focus group is to use deep and rich information from participants and provide an opportunity for an interactive exchange of views (Rabiee, 2004; Wilkinson, 1999). While a number of scholars advise a specific number of members to include in a focus group (e.g., Glenton, Nilsen, & Carlsen, 2006; Krueger & Casey, 2014), there are researchers who believe that the ideal size varies depending on the topic, purpose of the study and the amount of information needed to be gathered (e.g., Jervis & Drake, 2014; Stalmeijer, McNaughton, & Van Mook, 2014; Redmond & Curtis, 2009).

To select the moments of Iran tourism advertisements, two focus groups were conducted. The researcher contacted nine tourism marketing experts from an Australian university via email and asked them to participate in the focus groups. The focus group recruitment form is indicated in Appendix D. In the first focus group, in September 2017, five experts agreed to participate. Participants were invited to come to a research office where they read and signed the consent form to participate in the study. The consent form for the focus group is presented in Appendix E. The author showed the 20 videos of Iran to the focus group members and asked them to select those which create positive emotional arousal, especially those videos relevant to the life of Iranian people. After selecting the advertisements from 20 videos, the researcher invited the experts to the second focus group to select specific emotional moments to be included in a tourism marketing stimulus of Iran. Of the five experts in the first focus group, three participants agreed to attend the second session held in the same month.

For the focus group, results were available at the end of each discussion since participants only needed to select the emotional videos (demonstrating video number one or two, etc.)
in the first session and indicate the segments of the videos which created emotional responses in the second session. The researcher audio recorded the discussion and transcribed each session for further analysis. The discussions were analysed using thematic analysis (Braun & Clarke, 2006). The findings of the Delphi panel and focus group were used for the stimuli development which is discussed in chapter 4. After stimuli development, a pilot study was conducted to check the emotional arousal and source credibility manipulation for use in Stage II.

### 3.4.4. Stimuli manipulation check

Three versions of the advertisements were created to enable the researcher to select the appropriate stimuli for experimental conditions in Stage II. The focus group members selected two types of music as emotional, one traditional Iranian and one light rhythmic music and advised using one of the two pieces in the tourism marketing stimuli of Iran. Thus, the researcher created three versions of advertisements of Iran as a result of the Delphi panel and focus group findings, one stimulus with light rhythmic music, one video with traditional Iranian vocal, and one advertisement without music (see Section 4.3 for the three versions of the same mock tourism video of Iran). Then, a pilot study was conducted to assess the emotional arousal and source credibility manipulation of the tourism stimulus. The researcher utilised multiple techniques to measure emotional responses and an online questionnaire via Qualtrics to measure source credibility. Participants were invited to a research lab in an Australian University in November and December 2017. The consent and recruitment form for the stimuli manipulation check are presented in Appendix F and G. Following the introduction, participants needed to watch the three different versions of the tourism video. In order to avoid order effects,
each participant watched the videos in a different order (Li et al., 2018b). Participants viewed the videos and then completed the questionnaire and post-hoc interviews. Advertising stimuli presentation, data collection and analysis were controlled from a computer and laptop running psychophysiological software for emotional responses measurement (see Section 3.4.4.2 for further details). The total data collection procedure took around 20 to 30 minutes per participant.

3.4.4.1. Sample of the pilot study

The researcher employed a convenience sampling approach to recruit participants. Forty-three Australians (26 females and 17 males) participated in the pilot study. Participants were selected if they were Australian by birth or had lived in Australia for more than 18 years (to exclude those who were under 18). None of the participants had watched travel videos of Iran or travelled to the country before. Given data collection with physiological measurements is complicated and time-consuming, small samples are common in studies with physiological techniques (e.g., Gakhal & Senior, 2008; Somervuori & Ravaja, 2013). Of the 43 participants, six respondents were “non-responders”, having artefacts such as poor contact of electrodes or deflections in their electrodermal activity readings (Braithwaite, Watson, Jones, & Rowe, 2013), so their data were discarded. As a result, the data from 37 participants were used (21 females and 16 male).

3.4.4.2. Emotion measurement in the pilot study

To obtain both objective and descriptive data (Mauss & Robinson, 2009), this research applied four different methods to assess participants’ emotions. The researcher utilised skin conductance, FaceReader, questionnaire and post-hoc interviews to measure
participants’ emotional responses towards the videos. While physiological data were collected while watching the videos, participants needed to complete the questionnaire to indicate their emotions and a brief interview to explain their emotional responses after each advertisement. Collecting skin conductance and FaceReader data was done simultaneously as participants were sitting in front of a screen and watching the videos. Their facial movements were captured using a webcam and FaceReader was used to analyse data. The researcher attached two electrodes to the non-dominant hand of each participant to measure skin conductance response. The following sections detail the data collection methods to capture emotional responses.

*Skin conductance.* In response to a stimulus, an individual’s autonomic nervous system is activated which leads to sweat gland activity and a change in skin conductivity (Grabe et al., 2000). The change in skin conductance is an indicator of the level of emotional arousal (Kroeber-Riel, 1979). Skin conductance measures electrodermal activity and reveals an individual’s level of emotional arousal (Khalfa et al., 2002; Hadinejad et al., 2019c). For the purpose of this research, the Biopac skin conductance was utilised to assess participants’ emotional arousal in response to the tourism advertisements of Iran. A Biopac hardware (transmitter), Biopac data logger and AcqKnowledge were used for skin conductance data collection.

A transmitter is an electronic device which sends the skin conductance data to a data logger. A data logger is also an electronic tool which records data over time. AcqKnowledge is a data acquisition and analysis software provided by Biopac (Braithwaite et al., 2013). In order to collect skin conductance data, the researchers attached two standard electrodes to the index and middle fingertips of the non-dominant
hand of each participant to allow them to use a computer mouse with their dominant hand (Birk, Opitz, & Urry, 2017; Senior, Russell, Gazzaniga, & Raessens, 2006). The electrodes were connected to a transmitter which sent skin conductance signals to the Biopac data logger. As a general rule for laboratory studies, the sampling rate for skin conductance data collection was 2000Hz and the criterion for skin conductance response was greater than 0.05 μs (a visible deflection in the chart provided by the software) (Brodien Hapairai et al., 2018). The researchers allowed five minutes between attaching the electrodes to the participants’ fingers and collecting data to check the quality of skin conductance data (Braithwaite et al., 2013). In addition, participants were given a minimum of two minutes between each advertisement to relax and avoid any “carryover” effect (Li et al., 2018b).

AcqKnowledge was used for skin conductance data analysis. In line with the latest published guidelines for skin conductance analysis for continuous stimuli (such as audio or video), two common indicators of phasic skin conductance data, namely the frequency and amplitude of skin conductance responses, were calculated (Brodien Hapairai et al., 2018; Boucsein, 2012; Braithwaite et al., 2013). The frequency refers to the number (count) of skin conductance response peaks elicited in response to a stimulus in a given period (number of peaks). That is to say, the frequency of skin conductance response indicates the number of electrodermal reactions to a stimulus in a specific period of time. Skin conductance response amplitude refers to the magnitude of the peaks (reactions) during the period of measurement. The researcher calculated the frequency and amplitude of skin conductance responses within the AcqKnowledge software. The data collected from all participants were exported from AcqKnowledge to SPSS for further analysis.
FaceReader. FaceReader is an emotion measurement technology used to identify facial expressions and measures six basic emotions: happiness, sadness, anger, fear, disgust, and surprise (plus neutral), as well as emotional arousal and valence (Zaman & Shrimpton-Smith, 2006; Hadinejad et al., 2019b). While skin conductance only measures emotional arousal, FaceReader combines both basic and dimensional approaches to assess the type, intensity and valence of emotions (Hadinejad et al., 2019c). For FaceReader data collection, as suggested by previous research, participants were asked to sit in front of a window providing natural light for better detection of facial movements (Hetland et al., 2016). To overcome one potential drawback with FaceReader, participants wearing thick frame glasses were asked to take them off for better analysis of their facial movements. The researcher asked the participants if they can see the screen clearly without any problems to avoid any potential influence of vision on the results.

In line with the FaceReader guidelines, some participants might look angry or sad by nature and scholars need to calibrate their facial expression to have more accurate results (Hadinejad et al., 2019c). Therefore, the researcher calibrated FaceReader data obtained from each participant. Additionally, the researcher examined the fluctuations of emotions during the experiment. The moment-to-moment emotional responses (i.e., fluctuations of emotional arousal and valence) over the period of the experiment were analysed in this research using z-score. Z-score is the number of standard deviations difference from the mean (Tershakovec, Watson, Wenner & Marx, 1999) and is used to average and standardise data across time to identify spikes in physiological studies (Biocca, David, & West, 1994). The emotional arousal and valence for FaceReader data obtained from all participants were exported to SPSS for further analysis.
**Questionnaire.** After watching each stimulus, participants were asked to complete the self-assessment manikin (Lang, 1980) indicating their emotions. The manikin uses five pictorial images to indicate the three dimensions of emotions according to the Russell pleasure-arousal-dominance model (Smith, 2009). For the purpose of the pilot study, participants were asked to complete the valence and arousal levels. Participants were advised to provide an indication of how they felt while watching the video by selecting one of the manikins. Figure 3.2 indicates the self-assessment manikin used in the pilot questionnaire. The emotional arousal and valence of emotions obtained from the self-assessment manikin were exported to SPSS for further analysis.

![Self-assessment manikin](image)

Figure 3.2 Self-assessment manikin used in the pilot questionnaire (adapted from Bradley & Lang, 1994)

**Post-hoc interview.** After completing the self-assessment manikin, participants were briefly interviewed. The researcher requested participants to explain what they thought while watching each advertisement. Further, the researcher allowed participants to share their emotional experiences with regard to Iran tourism advertisements. For example, the researcher asked each participant “What emotions did you have while watching the
video? All post-hoc interviews were audio-recorded. Furthermore, all participants’ responses were transcribed by the researcher for further analysis. The emotional words that participants used to describe their emotions while watching each video were coded (positive, negative and neutral) using thematic content analysis (Downe-Wamboldt, 1992; Jennings, 2001; Hadinejad et al., 2019c). This qualitative method enabled the researcher to compare self-report with physiological data.

3.4.4.3. Source credibility measurement in the pilot study

For the stimuli manipulation check, the researcher also investigated the level of source credibility. Organic and induced agents, as high and low credible sources, were applied for the source credibility manipulation (see Moyle & Croy, 2006). In the high source credibility condition, participants were led to believe that the video was made by “A solo female traveller who visited Iran in 2017”. In the low source credibility condition, participants were told that the video was made by “A travel agency in Iran for promotional purposes”. Participants were randomly assigned to high and low source credibility conditions in the stimuli manipulation check. This research follows Clark and Evans’s study (2014) for source credibility check. The questionnaire included four questions for source credibility manipulation which asked participants to rate the perceived credibility of the video on a five-point scale (anchored at “not at all” and “a great deal”). The questions measured “credibility”, ”trustworthiness", ”honesty" and "expertise" of the sources. The data from all participants (N = 43) were used for the analysis of results.
3.4.4.4. *Stimuli manipulation analysis*

As a preliminary stage for stimuli manipulation analysis, skin conductance response frequency and amplitude, emotional arousal and valence obtained from FaceReader and questionnaire were checked by inspecting skewness and kurtosis (Hair, Black, Babin, & Anderson, 2010). According to Hair et al.’s recommendations (2010), statistics should be plus or minus one for skewness and plus or minus three for kurtosis for normally distributed data. Square root, log or inverse transformation were applied if the assumption of normality was violated (Tabachnick & Fidell, 2007). The researchers need to divide the scores into one to normalise data using inverse transformation (Pallant, 2016). In addition, the square root of every value is taken for a square root transformation and the logarithm of scores are used for log transformation (Osborne, 2008). Following the normality check, ANOVA with repeated measures was used to assess the differences among the three videos in terms of creating emotional responses (Li et al., 2018b).

One-way repeated measures ANOVA with post-hoc tests is used when each subject is exposed to two or more different conditions (Pallant, 2016). Post-hoc tests are an integral part of ANOVA which show multiple comparisons among different groups (Atkinson, 2002). Since each participant watched the three versions of the tourism advertisement, ANOVA with repeated measures is the appropriate technique to analyse the emotional responses across the three videos (Hadinejad et al., 2019c). The results of one-way repeated measures ANOVA are interpreted using descriptive statistics, F-value of the multivariate tests (Wilks’Lambda), the associated probability value of Wilks’Lambda, the degree of freedom and the effect size (Pallant, 2016). The effect size using eta squared (\(\eta^2\)) indicates the amount of variance in the dependent variable explained by the group
variable (Hevey & McGee, 1998). The $\eta^2$ with the value of 0.01 is considered to have a small effect, 0.06 moderate effect and 0.14 large effect (Cohen, 1988).

Further, in order to examine the perceived credibility of the sources (high versus low source credibility conditions), a t-test was used. An independent sample t-test is used when the researcher aims to compare the mean scores of two different groups of people (Iwaro & Mwasha, 2012). Therefore, an independent sample t-test was conducted to compare the credibility score for high and low credible sources. The results of an independent sample t-test are interpreted using the descriptive statistics, t-value of the independent samples test, associated probability value and degree of freedom (Pallant, 2016).

3.5. Stage II: The experiment

Stage II aimed to investigate the effect of cognitive and metacognitive thinking on attitude across different levels of emotional arousal and perceived credibility of tourism marketing stimuli. The difference in the amount of thought, valence of thoughts, thought confidence and attitude across experimental conditions was also assessed in Stage II. Essentially, an experimental design was used in Stage II to test the conceptual framework and research hypotheses. An experimental design is concerned with assigning subjects randomly to experimental conditions and comparing the effect of a treatment in different groups (Bryman & Bell, 2015; Ary, Jacobs, Sorensen, & Razavieh, 2009).

Subsequently, participants were randomly assigned to high versus low emotionally arousing and source credibility conditions. An online questionnaire was applied to collect data on Australian visitors’ thoughts and attitude towards Iran. The online questionnaire
included the video along with the questions to measure the amount and valence of thoughts, thought confidence and attitude. The procedure to implement the online questionnaire was similar to previous research designs in social psychology (e.g., Briñol et al., 2004).

3.5.1. Experimental conditions

Four versions of the questionnaire were designed to cover the experimental conditions. As depicted in Figure 3.3, experimental conditions were named as Music-Organic, Music-Induced, Silent-Organic and Silent-Induced. In the high emotional arousal condition, participants watched a video of Iran with a light rhythmic musical overlay and participants watched the same video without music as the low emotionally arousing advertisement. Therefore, Music indicates high emotional arousal while Silent refers to the low emotional arousal.

In the high source credibility condition, participants were led to believe that the video was made by “A solo female traveller who visited Iran in 2017” as an organic agent. Participants were told that the video was made by “A travel agency in Iran for promotional purposes” as an induced agent in the low source credibility condition. Thus, Organic demonstrates high perceived credibility of the advertisement whereas Induced implies low source credibility.

Respectively, in the Music-Organic condition, participants watched a video of Iran with a light rhythmic musical overlay (as the high emotional arousal condition) and they were told that the video was made by “A solo female traveller who visited Iran in 2017” as a
highly credible source. In the *Music-Induced* condition, participants watched the same video (for the high emotional arousal condition) and they were led to believe that the video was made by “A travel agency in Iran for promotional purposes” as a low credible source. The *Silent-Organic* condition included the same video but without music (as the low emotional arousal condition) and participants were exposed to the high source credibility condition. In the *Silent-Induced* condition, participants watched the low emotionally arousing video and were assigned to the low source credibility condition.

![Experimental design in the online questionnaire](image)

3.5.1.1. Online questionnaire

The primary aim of the online questionnaire was to investigate potential Australians’ thoughts and attitudes towards Iran. Therefore, the researcher created a questionnaire in Qualtrics and electronically distributed via survey sampling international (SSI) to a
sample of Australians. The data collected via SSI is a national representative sample of
Australia as it includes an equal gender split and participants from all states.

The questionnaire included a question “Are you Australian by birth? If not, have you
lived in Australia for at least 18 years?” as a screening question. The screening question
required the respondents to have lived in Australia for at least 18 years. This question
helped the researcher to exclude the non-Australian participants, especially those that
were below 18 years old. In addition, the questionnaire included another question “what
type of music did you hear in the background of the video?” as another screening
criterion. Those participants who answered “No” to the first question or provided an
incorrect response to the second question (depending on the emotional arousal condition
they were assigned to) were guided to a termination link, which did not allow them to
continue the questionnaire.

3.5.1.2. Measures

The questionnaire started with the consent form as participants were advised that the
completion of the survey would be taken as their consent to participate in the research.
Demographic questions including age, gender, education and previous travel experience
were asked in the online questionnaire. Then, the video and source of the stimulus
(depending on the condition that participants were assigned to) were shown. Participants
then needed to list their thoughts and rate their thought confidence and attitude towards
Iran based on the video they watched.

As mentioned earlier in this chapter, the questionnaire design and measurement of the
constructs were similar to prior research in social psychology (e.g., Briñol & Petty, 2003;
Horcajo et al., 2010; Petty et al., 2002) (see Appendix H for detailed questionnaire and recruitment form for main data collection). Prior research has confirmed the validity and reliability of the scales used in this thesis (e.g., Petty et al., 2002; Clark et al., 2013; Clarkson et al., 2013; Clarkson et al., 2011). Thought confidence and attitude were measured using a Likert scale. Likert scales have the advantage of providing a high response rate and are inexpensive and easy to administer (Moraes, 2016).

Amount of thought. Following the advertisement, participants were provided with ten blank boxes to list their thoughts about Iran based on the video. Participants were asked to write down a maximum of ten thoughts (word phrases/sentences) that went through their mind in response to the advertisement (number of thoughts ranging from zero to ten) (Briñol & Petty, 2003; Tormala et al., 2002; Briñol et al., 2007a). Participants were advised not to worry about grammar or spelling (Cacioppo & Petty, 1981; Clark & Thiem, 2015).

Valence of thoughts. Similar to prior research in the self-validation hypothesis literature, two judges, unaware of the experimental designs, coded the thoughts that were listed after watching the advertisement in order to measure the valence of thoughts (Briñol et al., 2007b; Briñol & Petty, 2003; Tormala et al., 2007; Horcajo et al., 2010). The two judges are industry experts but completely unaware of the study and experimental conditions. They were not academics or supervisors of the candidate. The judges were suitably qualified for this assessment as they were experienced in Tourism Marketing. Thoughts were classified as favourable, unfavourable and neutral in content. The judges also categorised the cognitive responses as to whether or not they were relevant to the experimental design. Irrelevant thoughts were excluded from the analysis. Judges agreed
on 94% of the favourability of thoughts and disagreements resolved by discussion. To form an index of favourability, the number of unfavourable thoughts was subtracted from the number of favourable thoughts and the difference divided by the total number of thoughts (Petty et al., 2002; Briñol et al., 2004; Tormala et al., 2006; Briñol et al., 2007c).

Thought confidence. After the thought listing task, participants were asked to think back to the thoughts they listed in response to the advertisement and report the confidence they had in their thoughts on a five-point scale (anchored at “not at all” and “a great deal”) (Horcajo et al., 2010; Briñol et al., 2004; Briñol et al., 2007c; Clarkson et al., 2011; Evans & Clark, 2012; Clark et al., 2013). The questionnaire included four questions to assess participants’ thought confidence which were as follows: Overall, how much confidence do you have in the thoughts you listed (about Iran based on the video)? Overall, how valid would you say your thoughts are? How certain are you that the thoughts you had while watching the video were correct? How certain are you that other people will have similar thoughts about Iran based on this video? The reliability of thought confidence scale has been confirmed in previous studies employing the self-validation hypothesis (Briñol et al., 2004). The reliability estimates, Cronbach’s alpha (α), range from 0.86 to 0.96 indicating the four questions included in this scale are able to measure the construct, i.e., the confidence respondents have in their thoughts (e.g., Blankenship et al., 2013; Clark et al., 2013). In the current study, α = 0.84 which is above 0.7 (Pallant, 2016), confirming the reliability of thought confidence measurement. The four items used for thought confidence measurement were averaged to form an index.

Attitude towards Iran. Following the thought listing task and rating thought confidence, participants were advised to rate their attitude towards Iran. Participants’ attitude towards
Iran based on the video they watched were assessed on a series of five-point semantic differential scales (eight questions: unfavourable-favourable, negative-positive, bad-good, boring-interesting, non-attractive-attractive, unpleasant-pleasant, undesirable-desirable, and non-useful-useful) (Briñol et al., 2004). The items in the attitude scale demonstrated high internal consistency and reliability in prior research (Briñol et al., 2009c). The Cronbach’s alpha reported in the self-validation hypothesis studies varies between 0.75 (e.g., Gascó et al., 2018) and 0.98 (e.g., Clark & Evans, 2014) implying the internal reliability and validity of this scale. The attitude scale in this study has good internal consistency with $\alpha = 0.95$. The items in the attitude scale were averaged to create a composite attitude index.

### 3.5.2. Data analysis for the experiment

This study follows the publications in social psychology which applied a similar theoretical framework and research design. As indicated in Table 3.1, the statistical techniques applied in the self-validation hypothesis literature range from t-test, ANOVA to multiple regression analysis (e.g., Briñol et al., 2004; Briñol & Petty, 2003; Clarkson et al., 2011). Therefore, ANOVA and multiple regression analysis are the statistical techniques employed in the current thesis to analyse the results of experiments in Stage II.

<table>
<thead>
<tr>
<th>Self-validation hypothesis researchers</th>
<th>Statistical techniques</th>
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<tr>
<td>Petty et al. (2002)</td>
<td>Multiple regression analysis</td>
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<tr>
<td>Tormala et al. (2002)</td>
<td>Multiple regression analysis, ANOVA</td>
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Multiple regression analysis is a statistical method to measure the relationships among variables in a model (Pallant, 2016). The general purpose of multiple regression analysis is to investigate the significance of the relationships between the dependent and independent variables in a research model (Hosmer & Lemeshow, 1989). Multiple regression analysis can be used to explain how well a number of independent variables predict a dependent variable. There are different types of multiple regression analysis including standard or simultaneous, hierarchical and stepwise regression analysis (Pallant, 2016).

Standard multiple regression is the most commonly used multiple regression analysis which involves entering all possible independent variables into the model simultaneously (Phillips, 2019). In standard multiple regression analysis, each independent variable is assessed as to its predictive power (Field, 2018). In hierarchical regression, the researcher specifies the order of independent variables and enters them into the model in steps...
(Wampold & Freund, 1987). Then, the researcher assesses how much each independent variable predicts the dependent variable after controlling for other variables. Researchers aim to find the best combination of independent variables to predict the dependent variable by adding or removing variables to/from the model in stepwise multiple regression (Weisberg, 1980).

Standard multiple regression is employed in this research as this technique is useful for when the researcher has a set of variables and aims to determine how much variance in a dependant variable is explained by the independent variables (Pallant, 2016). In particular, standard multiple regression analysis is used to explore how well cognitive and metacognitive thinking predict attitude (RQ2) and how the three dimensions of thinking affect attitude in each experimental condition (RQ3). In particular, the researcher tested hypotheses 1 to 5 using standard multiple regression analysis. The interpretation of standard multiple regression is reported using $R^2$ of the model, $\beta$ (coefficient between the independent and dependant variables) and the associated probability value (Pallant, 2016). Researchers need to consider the sample size, multicollinearity, outliers and normality of data before proceeding with multiple regression analysis (Pallant, 2016).

There is a lack of consensus on the sample size for this analysis technique. For example, Stevens (2012) recommends 15 observations per independent variable. This rule of thumb has also been supported by other scholars as 10 to 15 observations per independent variable is sufficient for regression analysis (Field, 2018). However, other formulas were suggested for calculating the sample size such as $N > 50+8m$ (where $m$ is the number of independent variables) (Pallant, 2016). Based on this formula, the sample size needs to be more than 74 ($50+8*3$: independent variables). Since four experimental conditions are
involved in this research, a minimum of 296 (74*4) participants needed to be employed. However, due to the potential incomplete or missing information (Saczynski, McManus, & Goldberg, 2013), the questionnaires were distributed online to a sample of 518 Australians which is considered to be more than adequate for the analysis given the “ten times rule” and the formula (Phillips, 2019).

Multicollinearity refers to the relationship among independent variables and exists when they are highly correlated (Field, 2018). If multicollinearity exists, it violates the assumptions of multiple regression analysis as it influences the estimation of parameters and is reported using the variance inflation factor (VIF) and tolerance (Phillips, 2019). The value of tolerance should be above 0.1 and the value of the variance inflation factor should be less than ten (Pallant, 2016). One possible way to detect the presence of outliers is to check the scatterplot (Tabachnick & Fidell, 2007). If the value of Cook’s distance, as a commonly used estimate of the influence of one observation on the model is below one, outliers are not an issue (Tabachnick & Fidell, 2007). For the purpose of multiple regression analysis, the data were checked for normality by inspecting skewness and kurtosis.

ANOVA is a statistical method that tests the differences between two or more means (Duverge, 2019). Researchers use a one-way between-groups ANOVA to compare the mean score of a variable among different groups (Pallant, 2016). Since the difference in the cognitive and metacognitive thinking and attitude across experimental conditions was assessed in this thesis, one-way between-groups ANOVA with post-hoc tests is the suitable technique. The results of one-way between-groups ANOVA are interpreted using
descriptive statistics, F-value of the main and interaction effects of each manipulation, the associated probability value, the degree of freedom and the effect size (Pallant, 2016).

3.6. Ethical considerations

Ethical issues need to be considered while designing and conducting research as well as reporting of results. Ethical considerations are important as researchers are required to respect the rights of individuals participating in the research (Creswell, 2013). Researchers cannot reveal participants’ identity without their permission and their participation in the research should not harm their well-being (Bryman, 2008). Ethical research allows researchers to add value to knowledge without harming the participants of the study (Neuman & Kreuger, 2011).

This research has complied with the ethical guidelines of the Griffith University Human Research Ethics Committee (Ethics reference number GU 2017/488). In all stages of the study, participants were advised that their participation is voluntary and all information they provide is confidential and will not be disclosed to third parties without their consent. Participants were also notified that they can stop participating in the data collection procedure anytime if they are not satisfied with participating further in the study, without comment or penalty. All consent and recruitment forms, information sheet and data collection questionnaires are presented in Appendix C to G.

3.7. Summary

This chapter has explained how the researcher’s paradigm guided this study and the interpretation of results. The research design includes two stages that were employed to
create the tourism marketing stimuli and assess Australians’ thoughts and attitude about Iran. Delphi panels and focus groups were applied to create the tourism video of Iran in Stage I. Further, physiological measurements, questionnaire and interviews were employed for stimuli manipulation check in Stage I. This chapter has detailed that the data were collected from Australians using an online platform, survey sampling international, in Stage II. The data in both stages were analysed using different techniques and statistical software including thematic content analysis and SPSS. Finally, the ethical considerations of the thesis have been discussed.

The next chapter reports the results from Stage I. The findings from Delphi panels, focus groups and stimuli development are discussed in chapter 4. The next chapter also discusses the results from the stimuli manipulation check using multiple methods to measure emotion and source credibility.
CHAPTER 4

STAGE I: STIMULI DEVELOPMENT

4.1. Introduction

This chapter presents the results of Stage I which tested the manipulation of the tourism marketing stimuli. In particular, the chapter focuses on answering the first research question on the difference of emotional responses of potential visitors across different levels of emotional arousal evoked by the tourism marketing stimuli. To achieve this, this chapter first reports the results of Delphi studies from Iranian and Australian tourism marketing experts on the selection of images to be included in a tourism advertisement of Iran. This is followed by the findings of the focus groups from Australian tourism marketing academics on the segments of videos of Iran which create emotional responses in participants. This chapter also presents the stimuli development that can be used in Stage II. The results of emotional arousal and source credibility manipulation are also presented. Finally, the results of this stage of the study are discussed.

4.2. Delphi panel results

The first research question seeks to find the differences in potential visitors’ emotional responses across different levels of emotional arousal elicited by the tourism marketing stimuli of Iran. To answer the first research question, the researcher created tourism advertising stimuli of Iran and measured participants’ emotional responses to the videos.
The first step to create the tourism advertisement of Iran, as explained in Chapter 3, was to conduct a Delphi panel to collect images of Iran to be included in the video.

The Delphi panel aimed to obtain a consensus among a group of experts on the images to be included in the tourism marketing stimuli of Iran. Delphi panellists included tourism marketing experts from Iran and Australia given the respective destination and market under investigation (see Section 3.4.2 for the selection of experts and details of Delphi panels). The panellists were contacted via email and asked to complete a short questionnaire. In the first Delphi panel, 54 experts were contacted. The respondents in the Delphi studies ranged in gender, nationality and academia/industry expertise. Of the 54 experts, 22 (seven from academia and 15 from industry) were from Iran and 32 (11 from academia and 21 from industry) were Australian. The number of Australian experts totalled more than the Iranian members because the target audience of the current study are Australians. Therefore, it was particularly important to understand the preferences of Australians to tourism videos of Iran or Iran as a tourism destination. The expert characteristics of Delphi panellists are illustrated in Figure 4.1.
In the first Delphi panel, 41 experts (18 from Iran and 23 from Australia) responded. Participants in the first Delphi study selected 20 images from 40 images presented, choosing five photos in each of the following categories: historical monuments, tourists in Iran, nature, and food (see Section 3.4.1 for further information on the categories of images). The selected images were assumed to create emotional responses in participants and suitable to be included in a tourism video of Iran. The results of the qualitative component in the questionnaire indicated that experts advised removing the second category of images, tourists in Iran. Experts provided comments such as, “I prefer to look and experience of the country, not other tourists?”, “needs relate uniquely to Iran, why tourists?” or “I’d rather see Iranian people than tourists going to Iran”. The overall aim

Figure 4.1 Expert composition of the sample in the Delphi studies of the current research.
of removing the images of tourists in Iran was to allocate more space to show different aspects of Iran as a potential tourism destination and the daily life of local communities.

A second Delphi study was conducted to reach a consensus on the selected images. All 41 experts were contacted for the second Delphi panel; however, only 17 members responded. Of the 17 participants, nine were Iranians and eight were from Australia which provided an approximate balance between the two nationalities. Experts in the second Delphi study selected nine images to be included in a tourism advertisement of Iran. The images included historical monuments, nature, and food. The results from the second Delphi study revealed that experts agreed to include sceneries, either still images or segments of videos, which indicate local communities and their daily life. For example, one member mentioned that “Actually hospitality is the first thing that tourists feel it... the soul of hospitality is rooted in the local communities and their culture.... So, it is better to add one section for local communities”. Similarly, another member commented as “I would like to see what the local people are doing”. Accordingly, a focus group was conducted particularly aimed to identify segments of existing videos which illustrate the life of local communities.

4.3. Focus group results

The findings from the Delphi panels indicated that a tourism advertisement of Iran needs to include sceneries of local communities in Iran and their daily life. Accordingly, focus groups with Australian tourism marketing experts were conducted. The aim of the focus group was to select the segments of the existing videos of Iran which show the life of local communities and have the potential to create emotional responses in participants or inspire them to visit Iran. For the purpose of the focus group, 20 videos were provided by
the Iranian tourism industry experts (refer to Section 3.4.1 for further explanation of these videos). The researcher emailed nine tourism marketing experts from an Australian university and invited them to participate in the focus group.

Five tourism marketing experts (two males and three females) agreed to participate in the first focus group. The participants were shown 20 videos ranging in duration from one to four minutes and asked to select the videos which they thought could evoke the greatest emotional response in Australians and inspire them to visit Iran. As a result, they selected six videos. The researcher could not include all the six videos in the tourism advertisement of Iran as an advertising stimulus longer than two minutes results in viewer fatigue (Li et al., 2018b). Accordingly, a second focus group with the same participants was organised to select the particular moments of the videos.

Three tourism marketing experts (two females and one male) agreed to participate in the second focus group. The researcher showed the advertisements, one by one, and asked the participants to select specific moments of the videos which were assumed to be emotional or had the potential to affect Australians’ visit intentions/attitudes towards Iran. In the second focus group, participants agreed that of the six videos, three advertisements elicited emotional arousal and positive emotions. Thus, participants selected 87 seconds of the three videos to be included in the tourism marketing stimuli of Iran. Of the three videos, two advertisements included emotional music, as perceived by the participants, one traditional Iranian and one light rhythmic music. The Iranian music was a traditional female vocal which expert described as peaceful and calming. The light rhythmic instrumental music had no vocal and was from the movie Paperman (Collar, n. d.). The focus group members advised using one of the two pieces of music in the tourism
marketing stimuli of Iran. As such, images selected in the Delphi panels and segments of videos chosen in the focus groups were combined to create a tourism video of Iran.

The final video (i.e., the tourism marketing stimulus for this study) is from the perspective of a solo female traveller who travels to Iran and includes images of tourist attractions, nature, food (images selected from Delphi panels) and the daily life of Iranians (segments of videos from focus groups). The video starts with an aerial view as a plane is landing in Iran and then the female tourist travels to different places and takes photos. The video ends with a blink of a Persian cat’s eye. The focus group members suggested that music should be added to the video of Iran to influence emotional arousal. Accordingly, three versions of the same video of Iran were created: Rhythmic Music (video with light rhythmic music), Iranian Music (video with traditional Iranian vocal), and No Music (video without music). Each video was ninety seconds in duration. The three versions of Iran tourism advertisement were tested to assess the emotional arousal and source credibility manipulation of the tourism stimulus.

4.4. Stimuli manipulation check

A pilot study was conducted to investigate which video creates the highest and lowest amount of emotional responses in participants. Further, source credibility manipulation was tested in the pilot study. Multiple methods including skin conductance, FaceReader, a questionnaire and post-hoc interviews were applied to assess emotional responses and a questionnaire was employed to measure source credibility manipulation. In the pilot study, 43 Australians participated. The characteristic of the sample engaged in the pilot study is explained in the following section.
4.4.1. *Sample of the pilot study*

There were 43 Australian participants (26 females and 17 males) in the pilot study. The sample had a balanced distribution of age groups as indicated in Table 4.1. All participants were either born in Australian or had lived in the country for more than 18 years. According to prior research, data collection with physiological measurements is complicated and time-consuming (Hadinejad et al., 2019b). Therefore, small samples are common in studies with physiological techniques (e.g. Gakhal & Senior, 2008; Somervuori & Ravaja, 2013). Of the 43 participants, the data from six respondents were invalid due to poor contact of electrodes or deflections in their electrodermal activity readings. This is common for physiological measurement studies, as described by Braithwaite et al. (2013). As a result, the data from 37 participants were used (21 females and 16 males) for measuring emotional responses. For the source credibility manipulation, the data from 43 participants were used.

Table 4.1 Participants’ demographic information in the pilot study (N = 43)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Categories</th>
<th>Sample size</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>26</td>
<td>60.5%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>17</td>
<td>39.5%</td>
</tr>
<tr>
<td>Age (in years)</td>
<td>18-24</td>
<td>8</td>
<td>18.6%</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>12</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>35-44</td>
<td>8</td>
<td>18.6%</td>
</tr>
<tr>
<td></td>
<td>45-54</td>
<td>6</td>
<td>14%</td>
</tr>
<tr>
<td>Level of education</td>
<td>Count</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>7</td>
<td>16.2%</td>
<td></td>
</tr>
<tr>
<td>Above 65</td>
<td>2</td>
<td>4.6%</td>
<td></td>
</tr>
<tr>
<td>Secondary Education</td>
<td>3</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Vocational (e.g., certificate/diploma)</td>
<td>3</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>University undergraduate</td>
<td>15</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>University postgraduate (master and doctorate)</td>
<td>22</td>
<td>51%</td>
<td></td>
</tr>
</tbody>
</table>

### 4.4.2. Data preparation for the stimuli manipulation check

For the pilot study, data were collected from participants by skin conductance, FaceReader, a questionnaire and post-hoc interviews. In particular, data collected by skin conductance involve skin conductance response frequency and amplitude. The FaceReader and questionnaire data report emotional arousal and valence. Also, post-hoc interviews explain the emotional experiences of participants while watching the advertisements. A preliminary stage of data analysis for the pilot study was to check the data for normality. In particular, the data were checked if skewness and kurtosis were within the acceptable values, plus or minus one for skewness and plus or minus three for kurtosis (Hair et al., 2010). The variables in Table 4.2 were labelled based on the data collection method and the video. For example, *Frequency Rhythmic Music* refers to the normality of skin conductance response frequency for *Rhythmic Music*. Similarly, *Arousal FaceReader Iranian Music* refers to emotional arousal measured by FaceReader for *Iranian Music*. 

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As shown in Table 4.2, the data for Frequency Rhythmic Music, Arousal FaceReader Rhythmic Music, Arousal FaceReader Iranian Music, Arousal FaceReader No Music, Arousal Questionnaire Rhythmic Music, Arousal Questionnaire Iranian Music, Arousal Questionnaire No Music, Valence Questionnaire Rhythmic Music, Valence Questionnaire Iranian Music, Valence Questionnaire No Music, were normally distributed, reporting skewness statistics ranging from -0.32 to 0.89 and kurtosis statistics ranging from -1.49 to 1.16.

However, the skewness and kurtosis were not within the accepted values for the variables: Frequency Iranian Music, Frequency No Music, Amplitude Rhythmic Music, Amplitude Iranian Music, Amplitude No Music, Valence FaceReader Rhythmic Music, Valence FaceReader Iranian Music and Valence FaceReader No Music. Prior research has indicated that physiological data are not normally distributed (Li et al., 2018a). Normalising physiological data using different transformation techniques have been reported in prior studies (e.g., Schupp et al., 2004; Hamann, Monarch, & Goldstein, 2002; Gallant & Hadjistavropoulos, 2017). Researchers need to normalise data if the distribution of scores is skewed using several techniques, such as square root, log or inverse transformation (Pallant, 2016; Tabachnick & Fidell, 2007).

Table 4.2 Data normality check for the stimuli manipulation check

<table>
<thead>
<tr>
<th>Measures</th>
<th>N*</th>
<th>Skewness statistics</th>
<th>Std. Error*</th>
<th>Kurtosis statistics</th>
<th>Std. Error</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Rhythmic Music</td>
<td>37</td>
<td>0.79</td>
<td>0.38</td>
<td>0.39</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Frequency Iranian Music</td>
<td>37</td>
<td>1.36</td>
<td>0.38</td>
<td>1.60</td>
<td>0.75</td>
<td>✗</td>
</tr>
<tr>
<td>Frequency Iranian Music-log</td>
<td>37</td>
<td>-0.18</td>
<td>0.38</td>
<td>-0.30</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>--------------------------</td>
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<td>---</td>
<td>-----</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency No Music</td>
<td>37</td>
<td>2.88</td>
<td>0.38</td>
<td>7.31</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Frequency No Music-inverse</td>
<td>37</td>
<td>-2.63</td>
<td>0.38</td>
<td>5.23</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Amplitude Rhythmic Music</td>
<td>37</td>
<td>2.16</td>
<td>0.38</td>
<td>4.27</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Amplitude Rhythmic Music-inverse</td>
<td>37</td>
<td>-0.73</td>
<td>0.38</td>
<td>-0.29</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Amplitude Iranian Music</td>
<td>37</td>
<td>4.54</td>
<td>0.38</td>
<td>23.68</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Amplitude Iranian Music-inverse</td>
<td>37</td>
<td>-0.97</td>
<td>0.38</td>
<td>0.85</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Amplitude No Music</td>
<td>37</td>
<td>4.16</td>
<td>0.38</td>
<td>19.24</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Amplitude No Music-inverse</td>
<td>37</td>
<td>-3.71</td>
<td>0.38</td>
<td>15.01</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Arousal FaceReader Rhythmic Music</td>
<td>37</td>
<td>-0.23</td>
<td>0.38</td>
<td>0.79</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Arousal FaceReader Iranian Music</td>
<td>37</td>
<td>-0.25</td>
<td>0.38</td>
<td>1.16</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Arousal FaceReader No Music</td>
<td>37</td>
<td>0.45</td>
<td>0.38</td>
<td>-0.44</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Valence FaceReader Rhythmic Music</td>
<td>37</td>
<td>2.95</td>
<td>0.38</td>
<td>11.22</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Valence FaceReader Rhythmic Music-inverse</td>
<td>37</td>
<td>-1.93</td>
<td>0.38</td>
<td>4.68</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Valence FaceReader Iranian Music</td>
<td>37</td>
<td>2.92</td>
<td>0.38</td>
<td>10.27</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Valence FaceReader Iranian Music-inverse</td>
<td>37</td>
<td>-1.08</td>
<td>0.38</td>
<td>0.63</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td>Valence FaceReader No Music</td>
<td>37</td>
<td>4.15</td>
<td>0.38</td>
<td>18.24</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Valence FaceReader No Music-inverse</td>
<td>37</td>
<td>-3.22</td>
<td>0.38</td>
<td>11.24</td>
<td>0.75</td>
<td>X</td>
</tr>
<tr>
<td>Arousal Questionnaire Rhythmic Music</td>
<td>37</td>
<td>-0.32</td>
<td>0.38</td>
<td>-1.49</td>
<td>0.75</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Arousal Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>SE</th>
<th>SE</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iranian Music</strong></td>
<td>37</td>
<td>0.50</td>
<td>0.38</td>
<td>-0.76</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td><strong>No Music</strong></td>
<td>37</td>
<td>0.89</td>
<td>0.38</td>
<td>-0.50</td>
<td>0.75</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Valence Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>SE</th>
<th>SE</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhythmic Music</strong></td>
<td>37</td>
<td>-0.05</td>
<td>0.38</td>
<td>-0.20</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Iranian Music</strong></td>
<td>37</td>
<td>0.58</td>
<td>0.38</td>
<td>-0.02</td>
<td>0.75</td>
<td>✓</td>
</tr>
<tr>
<td><strong>No Music</strong></td>
<td>37</td>
<td>0.10</td>
<td>0.38</td>
<td>-0.18</td>
<td>0.75</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: N = Number, Std. Error = Standard Error.

For *Frequency Iranian Music*, square root transformation did not affect the skewness and thus log transformation was applied to normalise the value. Log transformation had no significant impact on the skewness of *Amplitude Rhythmic Music*, *Amplitude Iranian Music* and *Valence FaceReader Iranian Music* and, accordingly, inverse transformation procedures were attempted. The skewness and kurtosis for *Amplitude Rhythmic Music*, *Amplitude Iranian Music* and *Valence FaceReader Iranian Music* were within the accepted values after inverse transformation was applied. However, no difference in skewness was found for *Frequency No Music*, *Amplitude No Music*, *Valence FaceReader Rhythmic Music* and *Valence FaceReader No Music* after inverse transformation was employed. This could be due to the non-normal distribution of data collected by physiological technologies (Li et al., 2018a). This is also in line with prior research which says that “if all the variables are skewed to about the same moderate extent, improvements of analysis with transformation are often marginal” (Tabachnick & Fidell, 2007, p. 81).

As a result, data analysis proceeded with normal, normalised data and inverse transformed values for *Frequency No Music*, *Amplitude No Music*, *Valence FaceReader Rhythmic Music* and *Valence FaceReader No Music*.
4.4.3. **Physiological techniques reports**

This section reports the findings from physiological techniques. The results of the frequency and amplitude of skin conductance responses are explained. This is followed by the results of emotional arousal and valence of emotions captured by FaceReader.

4.4.3.1. **Frequency and amplitude of skin conductance responses**

Figure 4.2 illustrates the frequency and amplitude of skin conductance responses indicating participants’ emotional arousal toward the videos. In order to find the significant differences in skin conductance response frequency and amplitude among the three videos (within-subject comparison), a post-hoc test for repeated measures ANOVA was conducted. Results indicate that the Rhythmic Music and Iranian Music elicited greater skin conductance response frequency compared to No Music. The results of the multivariate test indicated that there was a statistically significant difference between the three videos in terms of creating skin conductance response frequency in participants (Wilks’Lambda = 0.54, F (2, 35) = 14.88, p < 0.001, η2 = 0.46). Pairwise comparisons revealed that the Rhythmic Music (M = 3.62, SD = 2.67) was not significantly different from the Iranian Music (M = 3.00, SD = 2.64) in creating skin conductance responses in participants (p = 0.23) However, the Rhythmic Music and Iranian Music were significantly different from No Music (M = 0.89, SD = 2.66), p = 0.00. The η2 for this comparison is 0.46, indicating the actual difference in mean scores between the three videos is large.

Similar to the skin conductance response frequency, the researcher conducted repeated measures ANOVA to find the significant differences among the three videos in terms of
skin conductance response amplitude. The results revealed that the *Rhythmic Music* and *Iranian Music* evoked greater skin conductance response amplitude in respondents. Significant differences in the skin conductance response amplitude were found between the three advertising stimuli (Wilks’Lambda = 0.63, F (2, 35) = 9.95, p < 0.001, η² = 0.36). Post-hoc tests revealed that the *Rhythmic Music* (M = 0.65, SD = 0.87) was not significantly different from the *Iranian Music* (M = 0.57, SD = 1.04) based on skin conductance response amplitude (p = 0.63). However, the *Rhythmic Music* and *Iranian Music* generated significantly higher skin conductance response amplitude in participants than *No Music* (M = 0.02, SD = 0.06), p = 0.00. In addition, the effect size is 0.36 showing that the actual difference in mean scores between the *Rhythmic Music, Iranian Music* and *No Music* is large. The comparison of the three videos is illustrated in the figure below. The skin conductance response amplitude is measured in microsiemens.

![Figure 4.2 Mean scores of frequency and amplitude of skin conductance responses for the three videos (Microsiemen) (N = 37)](image-url)
4.4.3.2. FaceReader emotional arousal and valence

The valence and emotional arousal, participants’ emotional responses toward the videos, calculated by FaceReader, are presented in Figure 4.3. The results showed that the Rhythmic Music evoked a higher level of emotional arousal in participants than did the Iranian Music or No Music. The results indicated that there was a statistically significant difference between the three videos in terms of generating emotional arousal in participants (Wilks’Lambda = 0.01, F (2, 35) = 1045.83, p < 0.001, η2 = 0.98). This result revealed that the Rhythmic Music (M = 0.53, SD = 0.06) elicited significantly greater emotional arousal in participants than the Iranian Music (M = 0.32, SD = 0.05) and Iranian Music evoked significantly greater emotional arousal than No Music (M = 0.15, SD = 0.03), p = 0.00. The η2 is 0.98 showing that the actual difference between the three videos is large.

![Figure 4.3 Mean scores of emotional arousal and valence of emotion obtained by FaceReader for the three videos (N = 37)](image)

The ANOVA analysis indicates that the three videos were significantly different in valence of emotions from each other (Wilks’Lambda = 0.04, F (2, 35) = 348.26, p < 0.001,
The findings showed that *Rhythmic Music* created greater positive emotions in participants. The *Rhythmic Music* ($M = 0.33$, $SD = 0.04$) was the most effective video in terms of evoking positive emotions, followed by the *Iranian Music* ($M = 0.13$, $SD = 0.05$) and *No Music* ($M = 0.12$, $SD = 0.02$). Pairwise comparisons also indicated that the *Rhythmic Music* was significantly greater than the *Iranian Music* and *No Music* based on the valence of emotion ($p = 0.00$). However, the results indicated that *Iranian Music* was not significantly different from *No Music* in creating positive emotions ($p = 0.08$). The $\eta^2 = 0.95$ indicating the effect size large.

Moment-to-moment data based on emotional arousal and valence is illustrated in Figure 4.5 and 4.6 (the aggregative results of all participants). In this study, only the moment-to-moment data of the *Rhythmic Music* (which created higher emotional arousal and valence) is presented. Participants’ real-time emotional arousal and valence obtained from FaceReader were standardised based on a z-score. Consistent with prior research, only the z-scores greater than 1.96 were identified as peaks (Biocca et al., 1994) as these are highlighted in the graph.

Real-time emotional arousal in Figure 4.4 indicates seven peaks (black spots) at the beginning of the advertisement (00:00 - 00:07), where aerial views of tourist attractions of Iran were shown. Participants described these moments as “I really enjoyed the patterns and designs in the architecture”, “It was nice to see some glimpses of Iranian culture” and “intrigued by the culture”. Figure 4.4 illustrates that participants’ emotional arousal is declining along the video.
Figure 4.4 Moment-to-moment FaceReader data for emotional arousal (z-score) for the Rhythmic Music (N = 37)

Figure 4.5, however, indicates greater fluctuations in participants’ pleasure level. While the moment-to-moment valence data indicates constant fluctuations, there are six peaks in the pleasure diagram. The first two peaks occurred in the first five seconds of the advertisement in which aerial views of tourist attractions of Iran were shown. The second four peaks occurred between 01:27 - 01:30 and coincided with static images of nature and the final Persian cat’s eye blink. Participants explained their thoughts with regard to the nature image as “quite attractive”, and the eye blink as “the winking cat at end made me smile - thought it was a smart finish”, and “I noticed that animal (cat) as funny”.

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Figure 4.5 Moment-to-moment FaceReader data for valence of emotion (z-score) for the Rhythmic Music (N = 37)

4.4.4. **Self-report survey results**

This section reports the findings of the self-report surveys. In particular, the results of emotional arousal and valence of emotion measured by the questionnaire, self-assessment manikin, are detailed. Further, the analysis of post-hoc interviews is reported to indicate the emotions participants experienced while watching the videos.

4.4.4.1. **Emotional arousal and valence in the questionnaire**

The ANOVA with repeated measures indicated that the three videos were significantly different from each other in terms of creating emotional arousal in participants (Wilks’Lambda =0.22, F (2, 35) = 61.58, p < 0.001, η² = 0.78). The results showed that the Rhythmic Music evoked higher emotional arousal in respondents consistent with the FaceReader findings. The results of post-hoc tests showed that the Rhythmic Music (M = 3.16, SD = 0.83) created significantly higher levels of arousal in participants compared
to the *Iranian Music* (M = 2.16, SD = 1.01) which elicited higher emotional arousal than *No Music 3* (M = 1.57, SD = 0.72), \( p = 0.00 \). The effect size, using \( \eta^2 \), is 0.78 illustrating the actual difference in mean scores between the three videos is large. Participants’ self-reported emotional responses in the questionnaire are shown in Figure 4.6.

![Figure 4.6 Mean scores of emotional arousal and valence based on the questionnaire data for the three videos (N = 37)](image)

The results of multivariate test indicated that the three videos were significantly different from each other in terms of valence of emotion (Wilks’Lambda = 0.44, F (2, 35) = 22.13, \( p < 0.001 \), \( \eta^2 = 0.56 \)). Pairwise comparisons also indicated that the *Rhythmic Music* (M = 4.11, SD = 0.61) created significantly more pleasure in participants compared to the *Iranian Music* (M = 3.49, SD = 0.69) and *No Music* (M = 3.24, SD = 0.54), \( p = 0.00 \). However, the results indicated that *Iranian Music* was not statistically significantly different from *No Music* in creating positive emotions (\( p = 0.07 \)). Furthermore, the \( \eta^2 \) is 0.56 indicating the effect size is large. Together these results show that the *Rhythmic Music* evoked greater positive emotions in respondents, a finding which is consistent with FaceReader results. A summary of mean scores, standard deviation and ANOVA results
for skin conductance, FaceReader and the questionnaire are illustrated in Table 4.3 for the three videos.
Table 4.3 Summary of mean scores, SD1 and ANOVA results for skin conductance, FaceReader and the questionnaire

<table>
<thead>
<tr>
<th>Skin conductance</th>
<th>Mean score of frequency (SD)</th>
<th>ANOVA results of frequency (p value)</th>
<th>Mean score of amplitude (SD)</th>
<th>ANOVA results of amplitude (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhythmic Music</td>
<td>3.62 (2.67)</td>
<td>Rhythmic Music &gt; Iranian Music (p = 0.23)</td>
<td>0.65 (0.87)</td>
<td>Rhythmic Music &gt; Iranian Music (p = 0.63)</td>
</tr>
<tr>
<td>Iranian Music</td>
<td>3.00 (2.64)</td>
<td>Iranian Music &gt; No Music (p = 0.00)</td>
<td>0.57 (1.04)</td>
<td>Iranian Music &gt; No Music (p = 0.00)</td>
</tr>
<tr>
<td>No Music</td>
<td>0.89 (2.66)</td>
<td>Rhythmic Music &gt; No Music (p = 0.00)</td>
<td>0.02 (0.06)</td>
<td>Rhythmic Music &gt; No Music (p = 0.00)</td>
</tr>
<tr>
<td>Multivariate test</td>
<td>NA²</td>
<td>Wilks'Lambda = 0.54, F (2, 35) = 14.88, p &lt; 0.001, η² = 0.46</td>
<td>NA</td>
<td>Wilks'Lambda = 0.63, F (2, 35) = 9.95, p &lt; 0.001, η² = 0.36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FaceReader</th>
<th>Mean score of emotional arousal (SD)</th>
<th>ANOVA results of emotional arousal (p value)</th>
<th>Mean score of valence (SD)</th>
<th>ANOVA results of valence (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhythmic Music</td>
<td>0.53 (0.06)</td>
<td>Rhythmic Music &gt; Iranian Music (p = 0.00)</td>
<td>0.33 (0.04)</td>
<td>Rhythmic Music &gt; Iranian Music (p = 0.00)</td>
</tr>
<tr>
<td>Iranian Music</td>
<td>0.32 (0.05)</td>
<td>Iranian Music &gt; No Music (p = 0.00)</td>
<td>0.13 (0.05)</td>
<td>Iranian Music &gt; No Music (p = 0.08)</td>
</tr>
<tr>
<td>No Music</td>
<td>0.15 (0.03)</td>
<td>Rhythmic Music &gt; No Music (p = 0.00)</td>
<td>0.12 (0.02)</td>
<td>Rhythmic Music &gt; No Music (p = 0.00)</td>
</tr>
<tr>
<td>Multivariate test</td>
<td>NA</td>
<td>Wilks'Lambda = 0.01, F (2, 35) = 1045.83, p &lt; 0.001, η² = 0.98</td>
<td>NA</td>
<td>Wilks'Lambda = 0.04, F (2, 35) = 348.26, p &lt; 0.001, η² = 0.95</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>Mean score of emotional arousal (SD)</td>
<td>ANOVA results of emotional arousal (p value)</td>
<td>Mean score of valence (SD)</td>
<td>ANOVA results of Valence (p value)</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Rhythmic Music</td>
<td>3.16 (0.83)</td>
<td>Rhythmic Music &gt; Iranian Music (p = 0.00)</td>
<td>4.11 (0.61)</td>
<td>Rhythmic Music &gt; Iranian Music (p = 0.00)</td>
</tr>
<tr>
<td>Iranian Music</td>
<td>2.16 (1.01)</td>
<td>Iranian Music &gt; No Music (p = 0.00)</td>
<td>3.49 (0.69)</td>
<td>Iranian Music &gt; No Music (p = 0.07)</td>
</tr>
<tr>
<td>No Music</td>
<td>1.57 (0.72)</td>
<td>Rhythmic Music &gt; No Music (p = 0.00)</td>
<td>3.24 (0.54)</td>
<td>Rhythmic Music &gt; No Music (p = 0.00)</td>
</tr>
<tr>
<td>Multivariate test</td>
<td>NA</td>
<td>Wilks'Lambda = 0.22, F (2, 35) = 61.58, p &lt; 0.001, η² = 0.78</td>
<td>NA</td>
<td>Wilks'Lambda = 0.44, F (2, 35) = 22.13, p &lt; 0.001, η² = 0.56</td>
</tr>
</tbody>
</table>

Note: 1 SD = Standard deviation, 2 NA= not applicable
4.4.4.2. *Emotional responses in the post-hoc interview*

The findings from the questionnaire were consistent with the post-hoc interviews which were recorded and transcribed, and the emotional words and feelings while watching each video were coded into positive, negative and neutral categories (Jennings, 2001). Post-hoc interviews revealed that participants used terms such as “positive emotion”, “happy”, “appreciation”, “joy”, “peace”, and “content” to describe how they felt when they watched the *Rhythmic Music* with 84% of emotions coded as positive. Participants described their emotions for the *Iranian Music* as “a bit anti-climactic”, “fairly neutral”, or “a bit happy” with 30% of emotions coded as negative. Participants reported 57% of their emotions as negative for *No Music* as they used terms like “depressing”, “a little sad”, or “not very happy”. Participants used terms such as “neutral”, “fast”, “not many” or “little” which were conceptualised as neutral emotions. The percentage of positive, negative and neutral coded emotions are illustrated in Figure 4.7.

![Figure 4.7 Percentage of positive, negative and neutral emotions in qualitative data (N = 37)](image-url)
Participants reported their emotional experiences such as “the pics are awesome, wanting us to visit these place” (sic) or “the food component was especially tempting” in response to the first half of the video showing images of food and tourist attractions in Iran. In addition, participants reported responses such as “it looked like people were having fun” or “The people look quite attractive” and “liked the people. They seemed friendly” in response to the daily life of Iranians in the second half of the video.

4.4.5. Source credibility manipulation

The pilot study also included four questions on credibility, trustworthiness, honesty and expertise to test the source credibility manipulation. Participants were asked to rate the credibility of “A solo female traveller who visited Iran in 2017” and “A travel agency in Iran for promotional purposes” for high and low source credibility conditions. Ratings of the four scales were averaged to form an index of perceived credibility (Clark & Evans, 2014).

The statistical analysis of the pilot study data indicated that participants rated the credibility of “A solo female traveller who visited Iran in 2017” as a creator of organic content significantly higher (M = 3.8, SD = 1.1) than “A travel agency in Iran for promotional purposes” (M = 2.9, SD = 1.2) as a creator of induced content (t (41) = -2.50, p = 0.01). Therefore, “A solo female traveller who visited Iran in 2017” was used as the highly credible source for the experiment in Stage II. Further, “A travel agency in Iran for promotional purposes” was applied for the low source credibility condition for the experiment in the second stage.
4.5. Discussion of findings of the stimuli manipulation check

The aim of Stage I was to develop tourism marketing stimuli of Iran to be used in Stage II and to answer the first research question on how characteristics of tourism marketing stimuli have an impact on the emotional responses of potential visitors to Iran. In doing so, this chapter explored emotional responses towards the manipulation of the music of advertising stimuli using physiological and self-report surveys. Consistent with the literature (Baumgartner, Esslen, & Jäncke, 2006), the pilot study indicated that music is a powerful elicitor of emotions. The results indicated that the three tourism videos of Iran created different emotional responses in participants.

The findings of FaceReader were consistent with the questionnaire results as both revealed the Rhythmic Music created higher levels of emotional arousal in respondents in comparison with the Iranian Music and No Music. However, the findings of skin conductance were not consistent with FaceReader and the questionnaire which indicated participants reacted similarly to the two types of music (Rhythmic Music and Iranian Music) and showed less emotional arousal in response to No Music.

This chapter also indicated that the findings of FaceReader were consistent with the results of the questionnaire in terms of the valence of emotions. Rhythmic Music led to greater positive emotions in respondents compared to Iranian Music and No Music. This is consistent with the post-hoc interviews as all techniques indicated that the Rhythmic Music generated the most positive emotions in respondents compared to the Iranian Music and No Music.
Therefore, the findings of this stage allowed the researcher to utilise the manipulation for the four experimental conditions in Stage II. Despite the inconsistency between skin conductance results and FaceReader and the questionnaire, the researcher utilised the *Rhythmic Music* for the high emotional arousal condition. The main reason for this selection is FaceReader, questionnaire and post-hoc interview results revealed that participants showed higher levels of emotional responses to the *Rhythmic Music* compared to the *Iranian Music* and *No Music*. However, this inconsistency will be discussed in Chapter 6.

Accordingly, the *Rhythmic Music* was selected as the highly emotionally arousing video and *No Music* was chosen for the low emotional arousal experimental condition. Further, “A solo female traveller who visited Iran in 2017” was selected as the organic agent and high credible source and “A travel agency in Iran for promotional purposes” was chosen as the induced agent and low source credibility condition. Accordingly, as explained in Chapter 3, four experimental conditions were created and named as *Music-Organic, Music-Induced, Silent-Organic* and *Silent-Induced*. The comparison across physiological and self-report surveys is presented in Table 4.4.

**Table 4.4 Comparison across physiological and self-report surveys**

<table>
<thead>
<tr>
<th>Arousal</th>
<th>Valence</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin conductance</td>
<td>Rhythmic Music = Iranian Music</td>
<td>NA* The <em>Rhythmic Music</em> and <em>Iranian Music</em> are significantly different from <em>No Music</em> in terms of generating skin conductance response frequency and amplitude</td>
</tr>
<tr>
<td></td>
<td>Iranian Music &gt; No Music</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rhythmic Music &gt; No Music</td>
<td></td>
</tr>
</tbody>
</table>

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### 4.6. Summary

This chapter indicates that Delphi panel members selected nine images of Iran in three categories of historical monuments, nature and food to be included in a tourism video of Iran. This chapter also explains that 87 seconds of the existing tourism videos of Iran were selected by the focus group members to be included in the tourism marketing stimuli of Iran. The researcher combined the nine images and 87 seconds of videos to develop the tourism marketing stimuli of Iran. Following the stimuli development, the findings of
stimuli manipulation check were presented. The findings revealed that the *Rhythmic Music* elicited the highest level of emotional arousal and positive emotions in participants and, thus, was selected for the highly emotional arousal condition for use in Stage II. Further, *No Music* generated the lowest amount of emotional arousal and positive emotions and, therefore, was chosen for the low emotionally arousing condition for the next stage of the study. The stimuli manipulation check also revealed that participants rated “A solo female traveller who visited Iran in 2017” as a highly credible source and valued “A travel agency in Iran for promotional purposes” as a low credible source. Accordingly, four experimental conditions were designed namely *Music-Organic, Music-Induced, Silent-Organic* and *Silent-Induced*.

The next chapter reports the results from Stage II. The findings from the experimental design to test the theoretical framework and research hypotheses are also discussed in the next chapter. Chapter 5 also presents the results of ANOVA and standard multiple regression analysis.
CHAPTER 5

STAGE II: THE EXPERIMENT

5.1. Introduction

This chapter reports the results of the main data collection and analysis (Stage II) of the study, with a focus on answering RQ2, RQ3 and RQ4 regarding the impact of cognitive and metacognitive thinking on attitude and the difference of these variables across different levels of emotional arousal and perceived credibility of tourism marketing stimuli of Iran. First, this chapter presents the demographic characteristics of the sample. Then, a screening analysis of the sample size, multicollinearity, outliers and normality of data are presented. The standard multiple regression analysis for the overall model is presented followed by the regression analysis of each experimental condition based on β coefficients and $R^2$ results. Following the regression analysis, the results of the analysis of variance (ANOVA) are discussed in order to compare differences in cognitive and metacognitive thinking and attitude across different levels of emotional arousal and perceived credibility of tourism marketing stimuli. The chapter concludes with a summary of the results of hypothesis testing.

5.2. Demographic characteristics of the sample

Table 5.1 presents the demographic characteristics of the sample (N = 416). The sample had an almost even gender split with 203 male (49%) and 213 female (51%) respondents. The majority of participants were above 58 years old (29%). The number of participants
between 28 and 37 years old (19%) was similar to the partakers who were aged between 48 and 57 (19.2%). Further, nearly 18% of the participants were between 38 and 47 years old, with 60 partakers between 18 and 27 years.

The number of participants who had a vocational certificate (29.8%) was more than the partakers who had a bachelor degree (28.2%), secondary education (27.9%), masters or doctorate (12.2%) and primary education (1.7%). Table 5.1 also indicates that the majority of participants were from New South Wales and Australian capital territory (ACT) (35.8%) followed by Victoria (26.4%), Queensland (20.7%), Western Australia (8.6%), South Australia (6.5%), and Tasmania (2%). The number of participants for each state aligns with the percentage of population distribution for Australian states and territories (Australian Bureau of Statistics, 2018).

Table 5.1 Sample profile for Stage II

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Categories</th>
<th>Sample size</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>203</td>
<td>49%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>213</td>
<td>51%</td>
</tr>
<tr>
<td>Age (in years)</td>
<td>18-27</td>
<td>60</td>
<td>14.4%</td>
</tr>
<tr>
<td></td>
<td>28-37</td>
<td>79</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>38-47</td>
<td>74</td>
<td>17.8%</td>
</tr>
<tr>
<td></td>
<td>48-57</td>
<td>80</td>
<td>19.2%</td>
</tr>
<tr>
<td></td>
<td>58+</td>
<td>121</td>
<td>29.1%</td>
</tr>
<tr>
<td></td>
<td>I do not want to respond</td>
<td>2</td>
<td>0.5%</td>
</tr>
<tr>
<td>Highest level of education</td>
<td>Primary education</td>
<td>7</td>
<td>1.7%</td>
</tr>
</tbody>
</table>
Secondary education 116 27.9%
Vocational level (e.g., certificate/diploma) 124 29.8%
University undergraduate 117 28.2%
University postgraduate (master and doctorate) 51 12.2%
I do not want to respond 1 0.2%
State of residence New South Wales and ACT 149 35.8%
Queensland 86 20.7%
South Australia 27 6.5%
Tasmania 8 2%
Victoria 110 26.4%
Western Australia 36 8.6%

5.3. Data screening for regression analysis

Multiple regression analysis was conducted to test the effect of amount and valence of thoughts and thought confidence on attitude in the overall model as well as each experimental condition. According to the multiple regression analysis guidelines, the sample size, multicollinearity, outliers and normality of data were checked before proceeding with the analysis (Pallant, 2016). Therefore, all these issues were considered and tested in Stage II before conducting standard multiple regression analysis.

5.3.1. Sample size

For multiple regression analysis, it has been suggested that social science researchers need to consider 15 observations per independent variable (Stevens, 2012). There are three
independent variables in this study, amount of thought, valence of thinking and thought confidence. According to the “15 observations per independent variable”, the sample size needs to be more than 45 (15*3: independent variables). Furthermore, based on the $N > 50+8m$ formula ($m = \text{the number of independent variables}$) (Pallant, 2016), the sample needs to include 296 observations ($50+8*3 = 74$ for each experimental condition) (see Section 3.5.2 to find further information on the sample size required for regression analysis). The questionnaires were distributed via survey sampling international to a sample of 518 Australians which is considered to be more than sufficient for multiple regression analysis for the overall model and each experimental condition.

Of the 518, 74 questionnaires were incomplete and, thus, excluded from the analysis. The researcher then checked if participants selected one response for all questions which led to the elimination of an additional 28 responses, resulting in 416 fully completed questionnaires. Similar to Stage I, the amount of thought, valence of thoughts, thought confidence and attitude were checked using skewness and kurtosis (Hair et al., 2010).

5.3.2. **Multicollinearity check**

The data were also tested for multicollinearity to check if the independent variables were highly correlated (Field, 2018). If the value of tolerance is above 0.1 and the value of the variance inflation factor is less than ten, multicollinearity is not an issue (Pallant, 2016). Therefore, multicollinearity was assessed, and the results are presented in Table 5.2. Tolerance statistics ranged from 0.86 to 0.99 and variance inflation factor ranged from 1 to 1.12, which were within acceptable levels, as recommended by Pallant (2016) and indicates that there was no collinearity in the data.
Table 5.2 Multicollinearity statistics

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Collinearity statistics</th>
<th>Tolerance</th>
<th>Variance factor</th>
<th>inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Model</td>
<td></td>
<td>0.89</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Amount of thought</td>
<td></td>
<td>0.89</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Valence of thoughts</td>
<td></td>
<td>0.86</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>Thought confidence</td>
<td></td>
<td>0.89</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Music-Organic</td>
<td>Amount of thought</td>
<td>0.93</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>Valence of thoughts</td>
<td></td>
<td>0.93</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>Thought confidence</td>
<td></td>
<td>0.92</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>Music-Induced</td>
<td>Amount of thought</td>
<td>0.99</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Valence of thoughts</td>
<td></td>
<td>0.99</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Thought confidence</td>
<td></td>
<td>0.99</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Silent-Organic</td>
<td>Amount of thought</td>
<td>0.98</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>Valence of thoughts</td>
<td></td>
<td>0.97</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Thought confidence</td>
<td></td>
<td>0.97</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>Silent-Induced</td>
<td>Amount of thought</td>
<td>0.98</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>Valence of thoughts</td>
<td></td>
<td>0.94</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td>Thought confidence</td>
<td></td>
<td>0.95</td>
<td>1.05</td>
<td></td>
</tr>
</tbody>
</table>

5.3.3. Outliers check

Another preliminary test for multiple regression analysis is to check for outliers. Accordingly, the scatterplot was checked to detect the presence of outliers (Tabachnick
The scatterplots for the overall model plus all experimental conditions indicated no outliers existed (Pallant, 2016). As reported in Table 5.3, the value of Cook’s distance in the residual statistics was 0.58 for the overall model and ranged from 0.06 to 0.58 for the four experimental conditions. Since these statistics were below one, this confirms that outliers were not an issue in the models and had no undue influence on the results (Tabachnick & Fidell, 2007).

Table 5.3 Residual statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Cook’s distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Model</td>
<td>0.58</td>
</tr>
<tr>
<td>Music-Organic</td>
<td>0.33</td>
</tr>
<tr>
<td>Music-Induced</td>
<td>0.54</td>
</tr>
<tr>
<td>Lent-Organic</td>
<td>0.10</td>
</tr>
<tr>
<td>Silent-Induced</td>
<td>0.06</td>
</tr>
</tbody>
</table>

5.3.4. Normality of data

The data were checked for normality by inspecting skewness and kurtosis. Table 5.4 indicates the normality of data for the overall model and each experimental condition. As presented below, the valence of thoughts in the overall model, amount and valence of thoughts in the Music-Organic condition, amount and valence of thoughts in the Music-Induced condition and amount of thought in the Silent-Organic condition were not within the standard guidelines: plus or minus one for skewness and plus or minus three for kurtosis (Hair et al., 2010).
The skewness and kurtosis for the valence of thoughts in the overall model, the valence of thoughts in the \textit{Music-Organic} condition, the valence of thoughts in the \textit{Music-Induced} condition were within the accepted values after square transformation was employed (Tabachnick & Fidell, 2007). The skewed values for the amount of thought in the \textit{Music-Induced} condition and the amount of thought in the \textit{Silent-Organic} condition were normalised using square root transformation (Kralj, 2014). However, no difference in skewness was found for the amount of thought in the \textit{Music-Organic} condition after all kinds of transformation were applied and the raw data were used for the analysis. As a result, data analysis proceeded with normal data along with normalised data for the valence of thoughts in the overall model, the valence of thoughts in the \textit{Music-Organic} condition, amount and valence of thoughts in the \textit{Music-Induced} condition, and amount of thought in the \textit{Silent-Organic} condition.

Table 5.4 Data normality check for Stage II

<table>
<thead>
<tr>
<th>Measures</th>
<th>N</th>
<th>Skewness statistics (SD)</th>
<th>Kurtosis statistics (SD)</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of thought</td>
<td>416</td>
<td>0.59 (0.12)</td>
<td>-1.09 (0.24)</td>
<td>✓</td>
</tr>
<tr>
<td>Valence of thoughts</td>
<td>416</td>
<td>-1.03 (0.12)</td>
<td>0.22 (0.24)</td>
<td></td>
</tr>
<tr>
<td>Valence of thoughts-square</td>
<td>416</td>
<td>-0.16 (0.12)</td>
<td>-1.70 (0.24)</td>
<td>✓</td>
</tr>
<tr>
<td>Thought confidence</td>
<td>416</td>
<td>-0.17 (0.12)</td>
<td>-0.21 (0.24)</td>
<td>✓</td>
</tr>
<tr>
<td>Attitude</td>
<td>416</td>
<td>-0.24 (0.12)</td>
<td>-0.28 (0.24)</td>
<td>✓</td>
</tr>
<tr>
<td>\textit{Music-Organic}</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of thought</td>
<td>88</td>
<td>-1.61 (0.26)</td>
<td>3.4 (0.51)</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----</td>
<td>------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std</td>
<td>P</td>
</tr>
<tr>
<td><strong>Amount of thought-inverse</strong></td>
<td>88</td>
<td>2.71 (0.26)</td>
<td>11.68 (0.51)</td>
<td>×</td>
</tr>
<tr>
<td><strong>Valence of thoughts</strong></td>
<td>88</td>
<td>-2.29 (0.26)</td>
<td>5.68 (0.51)</td>
<td>×</td>
</tr>
<tr>
<td><strong>Valence of thoughts-square</strong></td>
<td>88</td>
<td>-0.96 (0.26)</td>
<td>-0.53 (0.51)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Thought confidence</strong></td>
<td>88</td>
<td>0.19 (0.26)</td>
<td>-0.63 (0.51)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td>88</td>
<td>0.03 (0.26)</td>
<td>-0.35 (0.51)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Music-Induced</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Amount of thought</strong></td>
<td>100</td>
<td>1.12 (0.24)</td>
<td>0.20 (0.48)</td>
<td>×</td>
</tr>
<tr>
<td><strong>Amount of thought-square root</strong></td>
<td>100</td>
<td>0.77 (0.24)</td>
<td>-0.39 (0.48)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Valence of thoughts</strong></td>
<td>100</td>
<td>-2.01 (0.24)</td>
<td>3.95 (0.48)</td>
<td>×</td>
</tr>
<tr>
<td><strong>Valence of thoughts-square</strong></td>
<td>100</td>
<td>-0.98 (0.24)</td>
<td>-0.64 (0.48)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Thought confidence</strong></td>
<td>100</td>
<td>-0.04 (0.24)</td>
<td>-0.76 (0.48)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td>100</td>
<td>-0.07 (0.24)</td>
<td>0.14 (0.48)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Silent-Organic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Amount of thought</strong></td>
<td>115</td>
<td>1.51 (0.23)</td>
<td>2.27 (0.45)</td>
<td>×</td>
</tr>
<tr>
<td><strong>Amount of thought-square root</strong></td>
<td>115</td>
<td>0.75 (0.23)</td>
<td>0.32 (0.45)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Valence of thoughts</strong></td>
<td>115</td>
<td>-0.90 (0.23)</td>
<td>-0.03 (0.45)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Thought confidence</strong></td>
<td>115</td>
<td>-0.26 (0.23)</td>
<td>-0.29 (0.45)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td>115</td>
<td>-0.28 (0.23)</td>
<td>-0.39 (0.45)</td>
<td>✓</td>
</tr>
</tbody>
</table>
Once the assumptions of multiple regression analysis were confirmed, the next step was to assess the model (Pallant, 2016). This step entailed an assessment of the relationships between constructs. In this stage of analysis, the evaluation of the model for the overall model and the four experimental conditions were assessed based on the $R^2$, $\beta$ (coefficient between the independent and dependant variables) and the associated probability value.

### 5.4. Standard multiple regression analysis

First, the standard multiple regression analysis for the overall model ($N = 416$) was assessed. The overall combination of amount of thought, valence of thoughts and thought confidence explained 32% of variance in attitude, $F (3, 412) = 65.83, p < 0.05$, $R^2 = 0.32$. As reported in Table 5.5, the amount of thought ($\beta = 0.11$), valence of thoughts ($\beta = 0.45$) and thought confidence ($\beta = 0.21$) had a positive impact on attitude. The coefficients in the overall model indicated that the amount of thought ($p = 0.00$), valence of thoughts ($p = 0.00$), and thought confidence ($p = 0.00$) participants generated in response to the Iran tourism advertisement significantly explained their attitude. It can be concluded that the
amount of thought, valence of thoughts and thought confidence had a positive and significant relationship with attitude. Thus, H1a, H1b and H1c were supported.

5.4.2. **Standard multiple regression analysis for the Music-Organic model**

In the next step, the model for each experimental design was assessed. In doing so, the model for the *Music-Organic* condition was evaluated first relating to H2a, H2b and H2c. The results indicated that the amount of thought, valence of thoughts and thought confidence explained 16% of the variance in attitude, $F (3, 84) = 5.53, p < 0.05, R^2 = 0.16$. As indicated in Table 5.5, the amount of thought did not explain attitude significantly in the *Music-Organic* condition. Although the amount of thought ($\beta = 0.10$) had a positive impact on attitude, it was not significantly correlated with the dependent variable. Further, the valence of thoughts ($\beta = 0.31$) and thought confidence ($\beta = 0.26$) had a statistically significant positive impact on attitude. In other words, participants’ valence of thoughts ($p = 0.00$) and thought confidence ($p = 0.01$) generated in response to the Iran tourism advertisement in the *Music-Organic* condition had a positive and significant relationship with attitude. Accordingly, while H2a was rejected, H2b and H2c were supported.

5.4.3. **Standard multiple regression analysis for the Music-Induced model**

The model for the *Music-Induced* condition was assessed using the standard multiple regression analysis. The results of the standard multiple regression analysis indicated that the amount of thought, valence of thoughts and thought confidence explained 25% of the variance in attitude, $F (3, 96) = 11.18, p < 0.05, R^2 = 0.25$. According to Table 5.5, the amount of thought ($\beta = 0.21$), valence of thoughts ($\beta = 0.27$) and thought confidence ($\beta$
exerted a significant positive impact on attitude. The results showed that participants’ amount of thought \((p = 0.02)\), valence of thoughts \((p = 0.00)\) and thought confidence \((p = 0.00)\) generated in response to the Iran tourism advertisement in the Music-Induced condition had a positive and significant relationship with attitude. Therefore, all the hypotheses in the Music-Induced condition, H3a, H3b and H3c, were supported.

5.4.4. Standard multiple regression analysis for the Silent-Organic model

The results of the standard multiple regression analysis for the Silent-Organic condition revealed that the \(R^2\) value is 0.38. The \(R^2\) value for this experimental condition indicates that the amount of thought, valence of thoughts and thought confidence explained 38\% of the variance in attitude, \(F(3, 111) = 23.06, p < 0.05, R^2 = 0.38\). Table 5.5 demonstrates that the amount of thought \((\beta = 0.27)\), valence of thoughts \((\beta = 0.47)\) and thought confidence \((\beta = 0.15)\) had a significant positive influence on attitude. The results showed that the amount of thought \((p = 0.00)\), valence of thoughts \((p = 0.00)\) and thought confidence \((p = 0.04)\) participants generated in response to the Iran tourism advertisement in the Silent-Organic condition significantly explained their attitude. It can be concluded that the amount of thought, valence of thoughts and thought confidence had a positive and significant relationship with attitude. Thus, the three hypotheses in the Silent-Organic condition including H4a, H4b and H4c were supported.

5.4.5. Standard multiple regression analysis for the Silent-Induced model

The model for the Silent-Induced condition was assessed. The results revealed that the amount of thought, valence of thoughts and thought confidence explained 32\% of the
variance in attitude, F (3, 109) = 17.56, p < 0.05, R² = 0.32. Table 5.5 indicates that while valence of thoughts (β = 0.49) exerted a significantly positive impact on attitude, the amount of thought (β = 0.12) and thought confidence (β = 0.15) had a positive but insignificant influence on attitude. In other words, only the valence of thoughts participants generated in response to the Iran tourism advertisement in the Silent-Induced condition had a positive and significant relationship with attitude (p = 0.00). Hence, only H5b was supported and H5a and H5c were rejected. The coefficients and probability values for the overall model and each experimental design are presented in Table 5.5.
Table 5.5 Results of the standard multiple regression analysis for each experimental conditions and the overall model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>β (coefficients)</th>
<th>T Values</th>
<th>P Values</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall model (N = 416)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1a</td>
<td>Amount of thought -&gt; attitude</td>
<td>0.11</td>
<td>2.47</td>
<td>0.00*</td>
</tr>
<tr>
<td>H1b</td>
<td>Valence of thoughts -&gt; attitude</td>
<td>0.45</td>
<td>10.48</td>
<td>0.00*</td>
</tr>
<tr>
<td>H1c</td>
<td>Thought confidence -&gt; attitude</td>
<td>0.21</td>
<td>5.17</td>
<td>0.00*</td>
</tr>
<tr>
<td>Music-Organic (n = 88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2a</td>
<td>Amount of thought -&gt; attitude</td>
<td>0.10</td>
<td>0.98</td>
<td>0.33</td>
</tr>
<tr>
<td>H2b</td>
<td>Valence of thoughts -&gt; attitude</td>
<td>0.31</td>
<td>2.97</td>
<td>0.00*</td>
</tr>
<tr>
<td>H2c</td>
<td>Thought confidence -&gt; attitude</td>
<td>0.26</td>
<td>2.52</td>
<td>0.01*</td>
</tr>
<tr>
<td>Music-Induced (n = 100)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3a</td>
<td>Amount of thought -&gt; attitude</td>
<td>0.21</td>
<td>2.34</td>
<td>0.02*</td>
</tr>
<tr>
<td>H3b</td>
<td>Valence of thoughts -&gt; attitude</td>
<td>0.27</td>
<td>3.10</td>
<td>0.00*</td>
</tr>
<tr>
<td>H3c</td>
<td>Thought confidence -&gt; attitude</td>
<td>0.35</td>
<td>3.93</td>
<td>0.00*</td>
</tr>
<tr>
<td>Silent-Organic (n = 115)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H4a</td>
<td>Amount of thought -&gt; attitude</td>
<td>0.27</td>
<td>3.63</td>
<td>0.00*</td>
</tr>
<tr>
<td>H4b</td>
<td>Valence of thoughts -&gt; attitude</td>
<td>0.47</td>
<td>6.25</td>
<td>0.00*</td>
</tr>
<tr>
<td>H4c</td>
<td>Thought confidence -&gt; attitude</td>
<td>0.15</td>
<td>2.02</td>
<td>0.04*</td>
</tr>
<tr>
<td>Silent-Induced (n = 113)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H5a</td>
<td>Amount of thought -&gt; attitude</td>
<td>0.12</td>
<td>1.50</td>
<td>0.14</td>
</tr>
<tr>
<td>H5b</td>
<td>Valence of thoughts -&gt; attitude</td>
<td>0.49</td>
<td>6.11</td>
<td>0.00*</td>
</tr>
<tr>
<td>H5c</td>
<td>Thought confidence -&gt; attitude</td>
<td>0.15</td>
<td>1.81</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Note: * significant at $p < 0.05$; not significant at $p > 0.05$
5.5. ANOVA results

Different scales were utilised to measure the amount of thought, valence of thoughts, thought confidence and attitude (see Section 3.5.1.2 for further information). Participants were asked to write a maximum of ten thoughts (word phrases/sentences) in response to the tourism marketing stimuli. Therefore, the amount of thought ranges from zero to ten. The valence of thoughts was measured by subtracting the number of unfavourable thoughts from the number of favourable thoughts and dividing the difference by the total number of thoughts. The valence of thoughts varies between minus one to plus one. Participants’ thought confidence and attitude were measured on a five-point scale and, thus, range from one to five. In order to find the significant differences in the amount of thought, valence of thoughts, thought confidence and attitude across all experimental conditions, ANOVA tests were performed. A post-hoc test for one-way between-groups ANOVA was conducted to explore the differences among Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions. The post-hoc analysis using the Tukey test are presented in the following section.

5.5.1. Amount of thought across experimental conditions

The results indicated that the Music-Organic condition (M = 9.45, SD = 0.77) elicited a greater amount of thought in participants compared to all other conditions (Music-Induced condition: M = 4.58, SD = 2.47; Silent-Organic condition: M = 3.30, SD = 2.23; Silent-Induced condition: M = 3.15, SD = 1.53). The ANOVA results indicated there was a statistically significant difference among the four experimental conditions based on the amount of thought (F (3, 412) = 229.15, p < 0.001, η² = 0.62). The η² for this comparison
is 0.62, indicating that the actual difference in mean scores between the four groups is large. Further, the Tukey post-hoc analysis indicated that the Music-Organic condition elicited a significantly greater amount of thought in participants compared to Music-Induced, Silent-Organic and Silent-Induced conditions \((p = 0.00)\).

Similarly, participants generated a significantly greater amount of thought in the Music-Induced condition in comparison with Silent-Organic and Silent-Induced conditions \((p = 0.00)\). However, the Silent-Organic condition did not significantly differ from Silent-Induced condition in terms of eliciting a greater amount of thought in participants \((p = 0.94)\). The ANOVA results for the amount of thought are illustrated in Table 5.6. It can be concluded that participants generated the greatest amount of thought in the Music-Organic condition while the Silent-Induced condition elicited the lowest cognitive effort.

**Table 5.6 ANOVA results for the amount of thought across experimental conditions**

<table>
<thead>
<tr>
<th>ANOVA results across the four groups</th>
<th>Hypotheses</th>
<th>Multiple comparisons</th>
<th>(P) values</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>(F (3, 412) = 229.15, p = 0.00, \eta^2 = 0.62)</td>
<td>H6a</td>
<td>Amount of thought in the Music-Organic vs. Music-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H6b</td>
<td>Amount of thought in the Music-Organic vs. Silent-Organic</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H6c</td>
<td>Amount of thought in the Music-Organic vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H6d</td>
<td>Amount of thought in the Music-Induced vs. Silent-Organic</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H6e</td>
<td>Amount of thought in the Music-Induced vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
</tbody>
</table>
5.5.2. Valence of thoughts across experimental conditions

Participants generated more favourable thoughts in the Music-Organic condition (M = 0.77, SD = 0.40) in comparison to all other conditions (Music-Induced condition: M = 0.76, SD = 0.40; Silent-Organic condition: M = 0.34, SD = 0.62; Silent-Induced condition: M = 0.07, SD = 0.58). The ANOVA results in Table 5.7 indicate that there was a statistically significant difference among the four groups in terms of valence of thoughts (F (3, 412) = 44.39, p < 0.001, η² = 0.24). The effect size indicates that the actual difference in mean scores between the four groups is large.

The Tukey post-hoc results indicated that while the valence of thoughts in the Music-Organic condition did not significantly differ from the Music-Induced condition (p = 1.00), the Music-Organic condition elicited significantly more favourable thoughts compared to Silent-Organic and Silent-Induced conditions (p = 0.00). Participants also generated significantly more favourable thoughts in the Music-Induced condition compared to the Silent-Organic and Silent-Induced conditions (p = 0.00). In addition, participants’ valence of thoughts was significantly higher in the Silent-Organic condition in comparison with the Silent-Induced condition (p = 0.00). According to the results, participants had the most and least favourable thoughts in the Music-Organic and Silent-Induced condition, respectively.
Table 5.7 ANOVA results for the valence of thoughts across experimental conditions

<table>
<thead>
<tr>
<th>ANOVA results across the four groups</th>
<th>Hypotheses</th>
<th>Multiple comparisons</th>
<th>P values</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>F (3, 412) = 44.39, p = 0.00, η2 = 0.24</td>
<td>H7a</td>
<td>Valence of thoughts in the Music-Organic vs. Music-Induced</td>
<td>1.00</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>H7b</td>
<td>Valence of thoughts in the Music-Organic vs. Silent-Organic</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H7c</td>
<td>Valence of thoughts in the Music-Organic vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H7d</td>
<td>Valence of thoughts in the Music-Induced vs. Silent-Organic</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H7e</td>
<td>Valence of thoughts in the Music-Induced vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H7f</td>
<td>Valence of thoughts in the Silent-Organic vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: * significant at p < 0.05; not significant at p > 0.05

5.5.3. Thought confidence across experimental conditions

The rhythmic music along with “A solo female traveller who visited Iran in 2017” (i.e., the Music-Organic condition: M = 3.62, SD = 0.77) evoked the highest amount of thought confidence in participants compared to other experimental conditions (Music-Induced condition: M = 3.49, SD = 0.86; Silent-Organic condition: M = 3.30, SD = 0.95; Silent-Induced condition: M = 3.29, SD = 0.85). Although Table 5.9 shows that the four experimental conditions differ significantly from each other (F (3, 412) = 3.35, p < 0.05, η2 = 0.02), the relatively small η2 indicates mean scores of the four groups are not considerably different to each other.
As with the other test variables, the Music-Organic condition was not significantly different from Music-Induced condition \( (p = 0.76) \) in terms of thought confidence. Further, participants reported significantly greater thought confidence in the Music-Organic condition compared to Silent-Organic and Silent-Induced conditions \( (p = 0.04) \). The results also showed insignificant differences in thought confidence between the Music-Induced and the Silent-Organic conditions \( (p = 0.33) \). Similarly, there was an insignificant difference between the Music-Induced and Silent-Induced conditions \( (p = 0.33) \). Thought confidence comparison confirms that while the emotional advertisements elicited similar amounts of thought confidence, participants were more confident in their thinking about Iran in response to such videos compared to non-emotional stimuli.

Table 5.8 ANOVA results for thought confidence across experimental conditions

<table>
<thead>
<tr>
<th>ANOVA results across the four groups</th>
<th>Hypotheses</th>
<th>Multiple comparisons</th>
<th>( P ) values</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>( F \ (3, \ 412) = 3.35, \ p = 0.01, \eta^2 = 0.02 )</td>
<td>H8a</td>
<td>Thought confidence in the Music-Organic vs. Music-Induced</td>
<td>0.76</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>H8b</td>
<td>Thought confidence in the Music-Organic vs. Silent-Organic</td>
<td>0.04*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H8c</td>
<td>Thought confidence in the Music-Organic vs. Silent-Induced</td>
<td>0.04*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H8d</td>
<td>Thought confidence in the Music-Induced vs. Silent-Organic</td>
<td>0.33</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>H8e</td>
<td>Thought confidence in the Music-Induced vs. Silent-Induced</td>
<td>0.33</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>H8f</td>
<td>Thought confidence in the Silent-Organic vs. Silent-Induced</td>
<td>1.00</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: * significant at \( p < 0.05 \); not significant at \( p > 0.05 \)
5.5.4. Attitude across experimental conditions

The descriptive statistics showed a more favourable attitude towards Iran as a tourism destination in the Music-Organic condition ($M = 3.47$, $SD = 0.82$) compared to other conditions (Music-Induced condition: $M = 3.46$, $SD = 0.81$; Silent-Organic condition: $M = 3.13$, $SD = 0.97$; Silent-Induced condition: $M = 2.83$, $SD = 1.02$). Further, the ANOVA results indicated that there was a statistically significant difference across the four experimental conditions based on the attitude towards Iran ($F (3, 412) = 11.27, p < 0.001$, $\eta^2 = 0.07$). The effect size for this comparison is 0.07, indicating the actual difference in mean scores between the four groups is moderate.

According to Table 5.9, the Tukey post-hoc comparisons indicated that participants’ attitude towards Iran in the Music-Organic condition did not significantly differ from the Music-Induced condition ($p = 1.00$). However, participants’ attitude in the Music-Organic condition was significantly more favourable than the Silent-Organic ($p = 0.04$) and Silent-Induced conditions ($p = 0.00$). Similarly, participants reported a significantly more favourable attitude towards Iran in the Music-Induced condition compared to Silent-Organic ($p = 0.04$) and Silent-Induced conditions ($p = 0.00$). Participants’ attitudes towards Iran as a tourism destination in the Silent-Organic condition did not differ significantly from the Silent-Induced condition ($p = 0.07$). The ANOVA results indicated that more emotionally arousing videos of Iran elicited a more favourable attitude in participants.
Table 5.9 ANOVA results for attitude across experimental conditions

<table>
<thead>
<tr>
<th>ANOVA results across the four groups</th>
<th>Hypotheses</th>
<th>Multiple comparison</th>
<th>$P$ values</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>$F(3, 412) = 11.27, \ p = 0.00, \ \eta^2 = 0.07$</td>
<td>H9a</td>
<td>Attitude in the Music-Organic vs. Music-Induced</td>
<td>1.00</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>H9b</td>
<td>Attitude in the Music-Organic vs. Silent-Organic</td>
<td>0.04*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H9c</td>
<td>Attitude in the Music-Organic vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H9d</td>
<td>Attitude in the Music-Induced vs. Silent-Organic</td>
<td>0.04*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H9e</td>
<td>Attitude in the Music-Induced vs. Silent-Induced</td>
<td>0.00*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>H9f</td>
<td>Attitude in the Silent-Organic vs. Silent-Induced</td>
<td>0.07</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: * significant at $p < 0.05$; not significant at $p > 0.05$

5.6. Discussion of Stage II findings

The aim of Stage II was to answer the second, third and fourth research questions on the effect of cognitive and metacognitive thinking on attitude and the difference in the variables across experimental conditions. In doing so, this chapter investigated the effect of the amount of thought, valence of thoughts, thought confidence on attitude in the overall model as well as each experimental condition. Further, the difference in the cognitive and metacognitive thinking and attitude across Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions was explored. The results indicated different effects of cognitive and metacognitive thinking on attitude in the overall model and experimental conditions. Further, each experimental condition evoked different
levels of cognitive and metacognitive thinking and attitude in participants. The findings are discussed below.

5.6.1. Effect of cognitive and metacognitive thinking on attitude in the overall model

The results indicated a significant positive relationship existed between the three dimensions of thinking and attitude in the overall model. Potential visitors’ attitudes towards Iran were influenced by the extent to which they thought about this country and elaborated on the information they received. Further, this study revealed that the valence of thoughts as another cognitive aspect of thinking had a significant and positive impact on attitude. The favourability of potential visitors’ thinking about Iran predicted their attitude towards this country as a tourism destination. This study illustrated that thought confidence, as a metacognitive aspect of thinking, significantly exerted a positive impact on attitude. That is to say, the more confidence people had in their thoughts in response to the advertisement of Iran, the more likely they were to form positive attitudes towards this country as a tourism destination.

5.6.2. Effect of cognitive and metacognitive thinking on attitude in each experimental condition

Music-Organic. The amount of thought had no significant positive impact on attitude. However, the valence of thoughts and thought confidence exerted a significant positive influence on potential visitors’ attitude towards Iran in the Music-Organic condition. That is to say, the more positive thoughts individuals generated in response to the emotionally arousing and highly credible tourism advertisement of Iran, the more favourable attitude
they had about this country. Similarly, thought confidence was found to be a significant predictor of potential visitors’ attitude towards Iran in the Music-Organic condition. That is, when Australian participants watched an emotionally arousing and highly credible video, only the valence of their thought and thought confidence significantly predicted their attitude towards Iran.

Music-Induced. There was a significant positive relationship between cognitive and metacognitive thinking and attitude in the Music-Induced condition. There was a positive and significant relationship between the amount of thought and attitude when participants were assigned to the Music-Induced condition. The higher levels of engagement in the information processing resulted in a more favourable attitude towards Iran in the Music-Induced condition. On the other hand, potential Australian visitors’ attitudes towards Iran were significantly impacted by the favourability of their thoughts about this country. This finding implies potential visitors’ valence of thoughts about Iran is an important predictor of their positive attitude towards this country when they watch a highly emotionally arousing marketing stimuli from induced agents. Further, participants’ confidence in their thoughts about Iran significantly predicted their attitude towards this country when they were assigned to the Music-Induced condition.

Silent-Organic. Similar to the Music-Induced condition, the cognitive and metacognitive thinking significantly explained attitude when participants watched the Silent-Organic condition. The results indicated that when participants were engaged in effortful thinking, they formed more favourable attitudes towards Iran in the Silent-Organic condition. Likewise, the more positive thoughts potential Australian visitors generated in response to the low emotionally arousing and highly credible video, the more positive attitude they
had about Iran. In the *Silent-Organic* condition, participants’ confidence in their thoughts about Iran significantly predicted their attitude about this tourism destination. That said, potential visitors’ confidence in thoughts about Iran was a predictor of their attitude towards this country when the tourism stimulus was from an organic agent and did not elicit high levels of emotional arousal.

*Silent-Induced.* The current study has revealed a significant and positive relationship existed only between the valence of thoughts and attitude in the *Silent-Induced* condition. The extent to which participants engaged in effortful thinking in the *Silent-Induced* condition had no significant positive impact on their attitude. However, the valence of participants’ thoughts with regard to Iran significantly affected their attitude towards this tourism destination in the *Silent-Induced* condition. This research also illustrated that participants reported low confidence in their thinking and indicated a less favourable attitude towards Iran in the *Silent-Induced* condition. Accordingly, their thought confidence did not predict attitude in the *Silent-Induced* condition. That said, when the level of emotional arousal and perceived credibility of tourism stimulus were low, only the valence of thoughts significantly explained potential Australian visitors’ attitudes towards Iran.

5.6.3. **The difference in cognitive and metacognitive thinking and attitude in each experimental condition**

*Amount of thought.* The results demonstrated that the *Music-Organic* condition significantly elicited a greater amount of thought in participants compared to the *Music-Induced, Silent-Organic* and *Silent-Induced* conditions. In the highly emotional arousal
conditions, higher perceived credibility led to more effortful thinking about Iran. In other words, participants generated more thoughts about Iran in the *Music-Organic* condition compared to the *Music-Induced* condition. The highly emotionally arousing stimuli evoked higher cognitive engagement with the tourism video of Iran compared to the *Silent-Organic* and *Silent-Induced* conditions. However, participants generated a similar amount of thinking about Iran as a tourism destination in the low emotional arousal conditions. That said, when the tourism marketing stimuli did not elicit high levels of emotional arousal, participants’ effortful thinking was similar across different levels of perceived credibility.

*Valence of thoughts.* The findings of the valence of thoughts across experimental conditions illustrated that participants generated more favourable thoughts in the *Music-Organic* condition in comparison to other experimental conditions. Although the favourability of participants’ thoughts did not differ across different levels of perceived credibility in the highly emotional arousal condition, participants’ valence of thoughts was significantly higher in the *Silent-Organic* condition in comparison with the *Silent-Induced* condition. That said, in the highly emotional arousal, regardless of the credibility of the stimuli, participants generated positive thoughts about Iran. However, when the marketing stimuli elicited low levels of emotional arousal, source credibility impacted on the valence of thoughts.

*Thought confidence.* Similar to the amount and valence of thoughts, the *Music-Organic* condition elicited the highest amount of thought confidence in participants. Participants’ confidence in their thoughts about Iran as a tourism destination was similar in the *Music-Organic* and *Music-Induced* conditions. Furthermore, participants reported similar
thought confidence in the low emotional arousal conditions. According to the results, participants had the most and least thought confidence in the Music-Organic and Silent-Induced conditions, respectively. The similar results of thought confidence across different levels of source credibility reveal that potential Australian visitors reported more confidence in response to emotionally arousing videos compared to non-emotional advertisements.

**Attitude.** Participants reported the most favourable attitude towards Iran in the Music-Organic condition compared to the Music-Induced, Silent-Organic, and Silent-Induced conditions. Participants’ attitude towards Iran as a tourism destination was significantly more favourable in the highly emotional arousal conditions compared to the Silent-Organic, and Silent-Induced conditions. However, similar attitudes were reported across both high emotional arousal conditions. Likewise, participants indicated similar attitudes across the low emotional arousal conditions. Therefore, emotionally arousing stimuli led to more favourable attitudes towards Iran rather than low emotional arousal conditions, regardless of the level of perceived credibility. Table 5.10 summarises the results of hypothesis testing.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>The effect of the amount of thought on attitude in the overall model</td>
</tr>
<tr>
<td>H1b</td>
<td>The effect of the valence of thoughts on attitude in the overall model</td>
</tr>
<tr>
<td>H1c</td>
<td>The effect of thought confidence on attitude in the overall model</td>
</tr>
<tr>
<td>H2a</td>
<td>The effect of the amount of thought on in the Music-Organic</td>
</tr>
<tr>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>H2b</td>
<td>The effect of the valence of thoughts on attitude in the <em>Music-Organic</em></td>
</tr>
<tr>
<td>H2c</td>
<td>The effect of thought confidence on attitude in the <em>Music-Organic</em></td>
</tr>
<tr>
<td>H3a</td>
<td>The effect of the amount of thought on attitude in the <em>Music-Induced</em></td>
</tr>
<tr>
<td>H3b</td>
<td>The effect of the valence of thoughts on attitude in the <em>Music-Induced</em></td>
</tr>
<tr>
<td>H3c</td>
<td>The effect of thought confidence on attitude in the <em>Music-Induced</em></td>
</tr>
<tr>
<td>H4a</td>
<td>The effect of the amount of thought on attitude in the <em>Silent-Organic</em></td>
</tr>
<tr>
<td>H4b</td>
<td>The effect of the valence of thoughts on attitude in the <em>Silent-Organic</em></td>
</tr>
<tr>
<td>H4c</td>
<td>The effect of thought confidence on attitude in the <em>Silent-Organic</em></td>
</tr>
<tr>
<td>H5a</td>
<td>The effect of the amount of thought on attitude in the <em>Silent-Induced</em></td>
</tr>
<tr>
<td>H5b</td>
<td>The effect of the valence of thoughts on attitude in the <em>Silent-Induced</em></td>
</tr>
<tr>
<td>H5c</td>
<td>The effect of thought confidence on attitude in the <em>Silent-Induced</em></td>
</tr>
<tr>
<td>H6a</td>
<td>Amount of thought in the <em>Music-Organic vs. Music-Induced</em></td>
</tr>
<tr>
<td>H6b</td>
<td>Amount of thought in the <em>Music-Organic vs. Silent-Organic</em></td>
</tr>
<tr>
<td>H6c</td>
<td>Amount of thought in the <em>Music-Organic vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H6d</td>
<td>Amount of thought in the <em>Music-Induced vs. Silent-Organic</em></td>
</tr>
<tr>
<td>H6e</td>
<td>Amount of thought in the <em>Music-Induced vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H6f</td>
<td>Amount of thought in the <em>Silent-Organic vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H7a</td>
<td>The valence of thoughts in the <em>Music-Organic vs. Music-Induced</em></td>
</tr>
<tr>
<td>H7b</td>
<td>The valence of thoughts in the <em>Music-Organic vs. Silent-Organic</em></td>
</tr>
<tr>
<td>H7c</td>
<td>The valence of thoughts in the <em>Music-Organic vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H7d</td>
<td>The valence of thoughts in the <em>Music-Induced vs. Silent-Organic</em></td>
</tr>
<tr>
<td>H7e</td>
<td>The valence of thoughts in the <em>Music-Induced vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H7f</td>
<td>The valence of thoughts in the <em>Silent-Organic vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H8a</td>
<td>Thought confidence in the <em>Music-Organic vs. Music-Induced</em></td>
</tr>
<tr>
<td>H8b</td>
<td>Thought confidence in the <em>Music-Organic vs. Silent-Organic</em></td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>H8c</td>
<td>Thought confidence in the <em>Music-Organic vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H8d</td>
<td>Thought confidence in the <em>Music-Induced vs. Silent-Organic</em></td>
</tr>
<tr>
<td>H8e</td>
<td>Thought confidence in the <em>Music-Induced vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H8f</td>
<td>Thought confidence in the <em>Silent-Organic vs. Silent-Induced</em></td>
</tr>
<tr>
<td>H9a</td>
<td>Attitude in the Music-Organic vs. Music-Induced</td>
</tr>
<tr>
<td>H9b</td>
<td>Attitude in the Music-Organic vs. Silent-Organic</td>
</tr>
<tr>
<td>H9c</td>
<td>Attitude in the Music-Organic vs. Silent-Induced</td>
</tr>
<tr>
<td>H9d</td>
<td>Attitude in the Music-Induced vs. Silent-Organic</td>
</tr>
<tr>
<td>H9e</td>
<td>Attitude in the Music-Induced vs. Silent-Induced</td>
</tr>
<tr>
<td>H9f</td>
<td>Attitude in the Silent-Organic vs. Silent-Induced</td>
</tr>
</tbody>
</table>

Note: * significant at $p < 0.05$; not significant at $p > 0.05$

5.7. **Summary**

This chapter has reported the demographic characteristics of participants indicating an equal gender representation. Statistical tests to check the assumptions of multiple regression analysis are presented in this chapter. According to the guidelines of the multiple regression analysis, the sample size was sufficient to be able to conduct this statistical technique. Further, the tolerance and variance inflation factor values indicated that multicollinearity was not an issue in this research. The data were also checked for normality and the results discussed in this chapter.

Following the assessment of the assumptions of multiple regression analysis, the evaluation of the models for the overall model and each experimental design was
presented. The evaluation of models showed that all coefficients in the overall model, *Music-Induced* and *Silent-Organic* conditions were significant. However, there were insignificant coefficients in the *Music-Organic* and *Silent-Induced* conditions. The chapter concludes with ANOVA results to check the differences in the amount of thought, valence of thoughts, thought confidence and attitude across the experimental conditions. The next chapter integrates the results of the two stages of this thesis and interprets the findings. The contribution and limitations of the current thesis are also discussed in the next chapter.
CHAPTER 6

DISCUSSION AND CONCLUSION

6.1. Introduction

The objective of this research was to “explore the effect of emotional arousal and source credibility on potential visitors’ thoughts and attitude towards a tourism destination”. To achieve this objective, a mock tourism advertisement of Iran was created first and then potential Australian visitors’ thoughts and attitudes towards this country were assessed. The conceptual framework and research hypotheses were developed in Chapter 2, and the research design needed to achieve the objective was outlined in Chapter 3. The stimuli development and manipulation check were explained in Chapter 4 and the results of the experiment were reported in Chapter 5. This chapter interprets the findings presented in Chapters 4 and 5 through six main sections. First, the results of Stage I – that is, the stimuli development and manipulation check – are discussed to answer RQ1. Second, a discussion of the findings of the experiment in Stage II is presented to answer RQ2, RQ3, and RQ4. Third, theoretical, methodological and practical implications are presented. Following an in-depth consideration of the contributions of this thesis, the final chapter concludes by acknowledging the limitations of the research and highlighting directions for future research.
6.2. RQ1: How do different tourism marketing stimuli of Iran differ in evoking emotional responses in potential visitors?

To answer the first research question, a tourism advertisement of Iran was developed and the emotional responses that varied according to the level of emotional arousal evoked by tourism marketing stimuli of Iran were assessed. Prior research has indicated that the Iranian tourism industry has not provided sufficient information and effective advertising to show its potential to visitors (Mowforth & Munt, 2003; Jalilvand et al., 2012), leading to develop emotional tourism marketing stimuli with the potential to affect visitor attitude (Hadinejad et al., 2019c). In order to gain insights into RQ1, a range of physiological techniques and self-report surveys were employed to measure potential visitors’ emotional responses towards the tourism marketing stimuli of Iran.

The results in Stage I revealed that the video with light rhythmic music elicited higher levels of emotional arousal in participants compared to the video with Iranian female vocal and without music. In line with prior literature, music as an important background feature played a significant role in eliciting emotions in individuals (Baumgartner et al., 2006; Gorn, 1982). The background music in the stimulus exerted a significant impact on participants emotional responses which is consistent with previous research (Oakes, 2007). Music provides a peripheral cue with the potential to influence individuals’ emotions (Pan, & Hanusch, 2011; Stout & Leckenby, 1988), supporting the results of this study. The higher levels of emotional responses to the advertisements with music suggest that musical stimuli evoke greater emotional arousal compared to an advertisement without music (Morris & Boone, 1998). The findings of FaceReader and the questionnaire indicated that the video with rhythmic music was the most effective video in eliciting the
highest level of emotional arousal in participants. Prior research confirms this finding as different types of music appeal to different market segments (Oakes, 2003). This was followed by the advertisement with traditional Iranian music and without music. However, skin conductance found similar emotional responses to the two types of music (the light rhythmic and Iranian music). Similar discrepancies between skin conductance and self-report findings were reported in previous research (Grabe et al., 2000). The similar emotional response towards the two types of music is inconsistent with prior scholarly enquiry which suggests that physiological responses are affected by the type of music (Shahabi & Moghimi, 2016; Zimny & Weidenfeller, 1963).

Stage I also found that participants had the highest amount of positive emotions in response to the advertisement with light rhythmic music compared to the other two advertisements. However, participants reacted similarly to the stimulus with Iranian female vocal and without music based on the pleasure dimension. The findings of the valence of emotions were consistent across FaceReader, the questionnaire and post-hoc interviews confirming the advertisement with rhythmic music evoked greater positive emotions in respondents compared to the videos with Iranian traditional female vocal and without music. This finding has been confirmed by prior research as the type of music affects emotional responses. For instance, Van Den Bosch et al., (2013) found that the type of music and level of familiarity with the musical stimuli enhance experienced pleasure and arousal. The findings are also consistent with previous literature that variations in musical styles result in different emotional reactions in participants. As an example, Gomez and Danuser’s (2007) research showed that different musical structures, such as rhythm and tempo, influence physiological responses, including valence of emotions and emotional arousal.
Overall, light rhythmic music evoked the highest level of emotional arousal and positive emotions in participants. The moment-to-moment data obtained from FaceReader implied that participants’ emotional arousal declined along the video with rhythmic music. Participants generated positive emotions while watching the stimulus with rhythmic music, but their emotions were not of high intensity in the second half of the video. In the first half of the video, participants watched a solo female traveller visiting different parts of Iran and several static images of food and tourist attractions were presented. The second half of the video showed scenes of the daily life of Iranians. Based on participants’ emotional experiences reported in the interview, the static images of food and tourist attractions elicited more emotional arousal, and the daily life of Iranians evoked less emotional arousal, but still positive emotions.

Stage I revealed that participants perceived “A solo female traveller who visited Iran in 2017” significantly more credible than “A travel agency in Iran for promotional purposes” which is consistent with prior studies. Prior research supports the findings as organic agents such as reports and tourists’ experiences are perceived to be highly credible, while induced agents such as destination promotional advertisements are considered to be of low credibility (Park et al., 2007; Tham et al., 2013). Accordingly, the results of Stage I led to the development of stimuli for Stage II of the study. As a result, an advertisement with rhythmic music was used for the high emotional arousal condition and the video without music was utilised as the low emotionally arousing stimulus. “A solo female traveller who visited Iran in 2017” was selected as the highly credible source and “A travel agency in Iran for promotional purposes” was chosen for the low source credibility condition.
6.3. RQ2: How do cognitive and metacognitive thinking affect attitude towards Iran as a destination?

The second stage of the research aimed to explore the relationships among variables in the conceptual model and test the hypotheses. In particular, this stage aimed to assess the effect of the amount and valence of thoughts (i.e., cognitive thinking) and thought confidence (i.e., metacognition) on attitude in the overall model. Subsequently, research hypotheses were tested to explore the effect of the three dimensions of thinking on potential Australian visitors’ attitude towards Iran. The following section discusses the results of testing H1a, H1b and H1c to answer RQ2.

This research revealed that the more deeply potential visitors were engaged in the cognitive effort, the more likely they were to indicate a positive attitude towards Iran as a tourism destination. In other words, more cognitive reactions in response to Iran’s tourism advertisement led to more favourable attitudes towards this country. The findings implied that potential Australian visitors formed favourable attitudes towards Iran when they were highly engaged in information processing and used high cognitive effort. The impact of the amount of thought on attitude has been reported in early research in psychology (Petty et al., 1976). Furthermore, the significant impact of cognitive capacity on attitude is in accord with the assumptions of the multi-process theories of attitude, notably the elaboration likelihood model (Briñol & Petty, 2009b). The positive impact of the amount of thought on attitude has also been confirmed in the self-validation hypothesis studies (e.g. Petty et al., 2002; Tormala et al., 2002; Clarkson et al., 2011). As a result, when an individual is engaged in effortful thinking, this thinking enhances
attitude. That is to say, one possible way to elicit a favourable attitude towards a destination is to make potential visitors highly engaged in information processing.

With regard to the second research question, this study found attitude was a function of dominance of favourability of thoughts. Further, the polarity of thoughts (positive minus negative thoughts) predicted post-advertisement attitude. That is, the more favourable thoughts participants generated in response to the Iran tourism advertisement, the more positive attitude they had towards this tourism destination. Accordingly, it was not only the cognitive reactions towards Iran that predicted potential Australian visitors’ attitude about this country, the direction of their thoughts also played a significant role. Greenwald’s seminal work (1968), the cognitive response theory, on the impact of favourability of thoughts on attitude confirms the findings of this research. Prior scholars have found similar results concerning the positive effect of the valence of thoughts on attitude (e.g., Harmon et al., 2007; Petty et al., 2002; Briñol & Petty, 2003; Briñol et al., 2004). Similar to the self-validation hypothesis literature, this research implies that the valence of thoughts in response to the advertisement of Iran is an important contributor to favourable and positive attitudes towards this country.

Similarly, the more confidence potential Australian visitors reported in their thoughts about Iran, the more positive attitude they had towards this country. The findings revealed that metacognition played a significant role in potential Australian visitors’ attitude formation as the greater the thought confidence, the greater impact it had on attitude. Thus, besides cognitive thinking, the amount and valence of thoughts, metacognition was a predictor of Australian visitors’ attitudes about Iran. The self-validation hypothesis literature states that metacognition predicts people’s attitudes towards an object or issue.
which confirms the findings of the current research (Petty et al., 2002; Tormala et al., 2007). Social psychologists have suggested that an increase in thought confidence leads to a more favourable attitude towards a message confirming the significant positive relationship between confidence in thoughts and attitude in this study (Briñol & Petty, 2003; Briñol et al., 2007a; Briñol et al., 2007c; Clark & Evans, 2014). Accordingly, tourism marketing stimuli need to evoke greater thought confidence in potential visitors in order to impact their attitude towards destinations. This is especially true for countries such as Iran as visitors do not have sufficient information about this country and are doubtful of what their experiences would be like prior to visiting this tourism destination. Therefore, both cognitive and metacognitive thinking play a significant role in forming positive attitudes towards a tourism destination, in this case, Iran.

6.4. RQ3: How do cognitive and metacognitive thinking affect attitude across different levels of emotional arousal and perceived credibility of a tourism marketing stimulus of Iran?

The relationship between the amount of thought, valence of thoughts and thought confidence on attitude across different levels of emotional arousal and perceived credibility of tourism marketing stimuli of Iran was investigated in order to address RQ3. The impact of cognitive and metacognitive thinking on attitude in each experimental condition was assessed in Stage II of the research design. More specifically, H2, H3, H4 and H5 were formulated and tested to explore the effect of the three dimensions of thinking on attitude in the Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions.
6.4.1. *Effect of cognitive and metacognitive thinking on attitude in the Music-Organic condition*

In response to RQ3, this research revealed that when the tourism stimulus of Iran evoked high levels of emotional arousal and was perceived to be highly credible, only the favourability of thoughts and thought confidence played significant roles in forming positive attitudes towards this tourism destination. That is to say, the more positive thoughts and thought confidence potential Australian visitors generated in response to the highly emotionally arousing and credible tourism advertisement of Iran, the more favourable attitude they had about this country. However, when both the emotive aspects and perceived credibility of the tourism stimulus were high, cognitive capacity did not determine a positive attitude towards Iran. The insignificant relationship between the amount of thinking and attitude is inconsistent with previous literature (Briñol et al., 2004; Tormala et al., 2006). Previous research has suggested that emotions elicited in response to the stimuli and high source credibility affect the amount of thought and subsequent attitude (Moore & Harris, 1996; Wyland & Forgas, 2007; Briñol et al., 2004). The insignificant relationship between the amount of thought and attitude under high emotional arousal and source credibility state might be explained by the ‘non-problematic’ condition of the advertisement that was perceived by participants (Mackie & Worth, 1989; Schwarz et al., 1991; Tiedens & Linton, 2001). According to social psychology, problematic situations affect attitude through determining the level of effortful processing (Briñol et al., 2004). In the current research, the opposite applied, that is, participants were emotionally engaged with the tourism stimulus and perceived the advertisement to be highly credible. The condition of the advertisement was considered to be safe and, thus, participants’ attitudes were not affected by their cognitive effort.
The positive impact of the valence of thoughts and thought confidence on attitude is consistent with prior research (e.g., Briñol et al., 2007a; Clark & Evans, 2014; Clark et al., 2013; Tormala et al., 2007). Emotionally congruent information and high source credibility have been shown to bias the thoughts that come to mind about a message and enhance thought confidence (Petty, Schumann, Richman, & Strathman, 1993; Petty & Briñol, 2015; Tormala et al., 2006). Therefore, in the current research, when potential Australian visitors were exposed to highly emotionally arousing and valid information, they generated positive thoughts and were confident in their thinking which resulted in favourable attitudes towards Iran. It can be concluded that when tourism advertisements evoke high levels of emotional arousal and are credible, the valence of thoughts and thought confidence are important contributors of positive attitudes towards tourism destinations.

6.4.2. Effect of cognitive and metacognitive thinking on attitude in the Music-Induced condition

In the absence of high source credibility, potential Australian visitors’ cognitive engagement with the video, their positive thoughts and confidence in thinking about Iran were significant contributors to attitude towards this country. This was particularly apparent when the tourism marketing stimulus was highly emotionally arousing. In other words, more effortful thinking, more positive thoughts and higher levels of thought confidence about Iran resulted in a more favourable attitude towards this country when the tourism advertisement evoked high levels of emotional arousal and was perceived to be of low credibility. In line with the findings of the current research, when individuals are exposed to emotionally arousing tourism marketing content, their emotional states
interfere with their cognitive effort and, subsequently, have a positive impact on their attitude towards the stimulus (Mackie & Worth, 1989). Further, prior scholarly enquiry such as the hedonic contingency framework asserts that emotions evoked by the marketing stimuli influence the favourability of individuals’ thinking and attitudinal judgements which support the current findings (Hirt et al., 2008; Neelamegham & Jain, 1999). Similarly, the self-validation hypothesis supports the findings of this research as emotional states along with perceived credibility influence the relationship between thought confidence and attitude (e.g. Briñol et al., 2007a; Clark & Evans, 2014).

Previous research has articulated that the valence of emotions elicited in response to stimuli as well as the perceived credibility of a source affect the relationship between information processing, favourability of thoughts, thought confidence and attitude towards a message (Briñol et al., 2007a; Briñol & Petty, 2009a; Tormala et al., 2006; Tormala et al., 2007). However, the current research advances prior knowledge in social psychology through indicating that the combined effect of high emotional arousal and low perceived credibility affect the relationship between the three dimensions of thinking and attitude. Therefore, it can be concluded that when the tourism advertisement of Iran elicits high levels of emotional arousal, even with the low perceived credibility of the source, individuals’ positive attitudes towards this tourism destination are shaped by their cognitive reactions and confidence in thinking.

6.4.3. Effect of cognitive and metacognitive thinking on attitude in the Silent-Organic condition

A highly credible tourism advertisement of Iran, in the absence of emotional arousal, facilitated a situation where potential Australian visitors’ high level of cognitive
engagement with the video, positive thinking and high thought confidence led to positive attitudes about this country. This research demonstrated that potential Australian visitors’ cognition and metacognition significantly predicted a positive attitude towards Iran when the tourism advertisement was perceived to be credible but did not elicit high levels of emotional responses. Similar results on the impact of emotional states and source credibility on cognition, the amount and favourability of thinking, and subsequent attitude, have been reported in prior research (Briñol et al., 2007a; Briñol & Petty, 2009b; Hirt et al., 2008). Further, consistent with the predictions of the elaboration likelihood model and heuristic systematic model, high source credibility is perceived to be valid information which determines attitude through accelerating information processing and the direction of thoughts that come to an individual’s mind when exposed to an advertisement or a message (Tormala et al., 2006; Briñol et al., 2004; Chaiken & Maheswaran, 1994; Briñol et al., 2009a; Tormala et al., 2007). The findings of the current research are also in accord with the social psychology studies which recommend that both emotional responses and source credibility impact the relationship between individuals’ confidence in their thoughts and the following attitude (e.g., Briñol & Petty, 2015; Clark & Evans, 2014).

Accordingly, regardless of the low level of emotional arousal elicited by the tourism advertisement of Iran, high source credibility motivated participants to engage in effortful processing, evoked positive thoughts, high levels of thought confidence and favourable attitude. In conclusion, tourism marketing stimuli need to be strong in one feature, either the emotive aspect or perceived credibility, to elicit positive attitudes towards Iran through engaging individuals cognitively with the tourism marketing stimuli, evoking favourable thoughts and high levels of thought confidence.
6.4.4. Effect of cognitive and metacognitive thinking on attitude in the Silent-Induced

When the tourism stimulus evoked low emotional arousal and was perceived to be poorly credible, only the favourability of potential Australian visitors’ thoughts about Iran predicted their attitude towards this country. That is, the cognitive engagement with the tourism advertisement and confidence in thinking about Iran did not affect attitude when the stimulus did not evoke high levels of emotional arousal and was perceived to be of low credibility. Unlike the self-validation hypothesis literature which has indicated that emotive aspects and perceived credibility of stimuli affect individuals’ effortful thinking and subsequent attitude (Bruñol & Petty, 2009b; Tormala et al., 2006), this research has revealed an insignificant impact of the amount of thought on attitude when both the emotional arousal and perceived credibility of the tourism stimulus were low. The combined effect of low emotional arousal and source credibility might explain the insignificant impact of cognitive effort on attitude in the Silent-Induced condition.

According to the associative network theories of memory, emotions facilitate the retrieval of information (Blaney, 1986; Bower, 1981) as non-emotional messages do not exert a strong influence on attitude through determining information processing (Chartrand et al., 2006; Moons & Mackie, 2007). Further, high source credibility can determine the amount of cognitive effort (Tormala et al., 2007). In the Silent-Induced condition, the stimulus did not evoke emotions in participants and the information they received was invalid which resulted in the insignificant impact of cognitive engagement on attitude.

The direction of potential Australian visitors’ thinking was a significant determinant of their positive attitude towards Iran, which is in line with the studies in the broader
psychology literature (Chaiken & Maheswaran, 1994; Briñol et al., 2007a; Hirt et al., 2008). Further, in accord with prior research, the valence of thoughts is a significant predictor of attitude in both high and low source credibility conditions (Tormala et al., 2007). Although prior research suggests that emotion manipulation significantly affects thought confidence and attitude (Briñol et al., 2007a), this research has revealed an insignificant relationship between confidence in thinking and attitude when both the emotional arousal and perceived credibility of the tourism stimulus were low. The low source credibility could explain the insignificant impact of potential Australian visitors’ thought confidence on attitude as the self-validation hypothesis researchers have stated that when an individual learns a source is low in credibility, one might think that the information is invalid and, thus, they have less confidence in their thoughts and generate less favourable attitudes towards the message (Briñol & Petty, 2009b). Accordingly, when a tourism advertisement is strong neither in emotive aspects nor in the perceived credibility, a positive attitude is developed only by generating positive thoughts about the stimulus.

In summary, in response to RQ3, previous social psychology literature confirms the findings of this research regarding the multiple roles of emotion and source credibility in cognitive and metacognitive thinking and subsequent attitude (e.g. Briñol & Petty, 2009b; Briñol & Petty, 2009a). In addition, this study has found that the valence of thinking plays a significant role in shaping favourable attitude towards Iran regardless of the level of emotional arousal and perceived credibility of tourism marketing stimulus. That said, the valence of potential Australian visitors’ thinking exerted a positive impact on their attitude towards Iran in all experimental conditions. Further, the findings of this research imply that either emotive aspect or source credibility of tourism advertisement need to be
strong to cognitively engage individuals with the stimulus, evoke positive thoughts, make them confident in their thinking and develop favourable attitudes towards tourism destinations.

### 6.5. RQ4: How do cognitive and metacognitive thinking and attitude differ across different levels of emotional arousal and perceived credibility of a tourism marketing stimulus of Iran?

In order to provide an understanding to RQ4, Stage II assessed the differences in the amount of thought, valence of thoughts, thought confidence and attitude across the experimental conditions. Accordingly, H6, H7, H8 and H9 were tested to investigate the differences in cognition, metacognition and attitude across the Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions. The following section discusses how the three dimensions of thinking and attitude differ across different levels of emotional arousal and source credibility of tourism marketing stimuli of Iran.

#### 6.5.1. Amount of thought across the Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions

Potential Australian visitors were the most cognitively engaged with the tourism advertisement of Iran when the stimulus evoked high levels of emotional arousal compared to the non-emotional advertisements. Hence, the more emotional arousal the tourism video elicited in participants, the more thinking potential visitors generated about Iran. In line with prior research, stimuli-induced emotions affect individuals’ effortful thinking in response to a message (Moore & Harris, 1996; Wyland & Forgas, 2007). According to the associative network theories of memory, emotional states facilitate
information processing (Blaney, 1986; Briñol et al., 2007a), which support the higher effortful thinking in response to an emotional stimulus. While previous literature has highlighted the role of the valence of emotion in the need for cognition (Mackie & Worth, 1989; Schwarz et al., 1991), this research extends previous self-validation hypothesis studies through indicating emotional arousal is also an important determinant of thought generation in response to a message. Further, high source credibility led to a more cognitive effort in the high emotional arousal conditions. Therefore, high perceived credibility facilitated thought generation about Iran which is consistent with multi-process theories of attitude like the elaboration likelihood model and heuristic systematic model (Tormala et al., 2006; Briñol & Petty, 2009b; Petty & Wegener, 1998).

With regard to the stimuli with low emotional arousal, potential Australian visitors generated a similar amount of thought across both high and low sources of credibility. When the stimuli did not evoke emotional arousal in participants, source credibility manipulation did not affect their amount of thought. Although prior research has suggested highly credible sources lead to greater amount of thought (Tormala et al., 2006), lack of emotions evoked by the advertisements might explain the similar information processing in the low emotional arousal conditions as the emotional stimuli have a stronger effect on cognitive effort compared to a non-emotional message (Chartrand et al., 2006; Moons & Mackie, 2007). In conclusion, this study shows that highly emotionally arousing tourism stimuli lead to higher engagement in effortful thinking.
6.5.2. *Valence of thoughts across the Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions*

Similar to the amount of thought, this research has revealed that highly emotionally arousing videos of Iran provoked the most positive thoughts about this country in potential Australian visitors. That is, the more emotional arousal generated towards the tourism stimuli resulted in more favourable thoughts about Iran. The hedonic contingency view supports the positive thoughts about Iran towards the emotional stimuli as this framework states individuals are sensitive to the hedonic implications of messages they encounter and, thus, emotional messages engender favourable thoughts (Hirt et al., 2008; Briñol et al., 2007a). While only the role of the valence of emotion has been studied in the self-validation hypothesis literature, the current research advances knowledge by highlighting the importance of emotional arousal in determining the favourability of individuals’ thinking in response to stimuli. However, when the stimuli evoked high levels of emotional arousal, source credibility manipulation did not bias participants’ thinking. Unlike the findings of the current study, social psychology researchers have suggested highly credible sources evoke more favourable thoughts (Tormala et al., 2006; Clark et al., 2013; Tormala et al., 2007). One possible reason could be the political instability and the risk associated with the Middle Eastern countries such as Iran (Sharifpour et al., 2014) that did not allow the source credibility manipulation to affect the favourability of thoughts in response to the highly emotionally arousing videos. As a result, it could be concluded that, in the context of tourism, highly emotionally arousing advertisements elicit favourable thoughts regardless of the perceived credibility of the source.
6.5.3. Thought confidence across the Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions

In response to the fourth research question, the findings demonstrated that participants were more confident in their thoughts when they watched a highly emotionally arousing and credible advertisement of Iran compared to non-emotional stimuli. The findings of thought confidence between the emotional and non-emotional stimuli are in accord with previous studies (e.g. Briñol et al., 2007a; Tiedens & Linton, 2001). The findings of this research add value to prior knowledge by indicating both dimensions of emotions (i.e., valence and arousal) bias individuals’ thought confidence when encountering a message. However, highly emotionally arousing advertisements of Iran evoked similar thought confidence across high and low source credibility which is inconsistent with previous studies (e.g. Briñol et al., 2007a; Tiedens & Linton, 2001; Clark et al., 2013; Clark & Evans, 2014). Literature in the broader psychology might explain the similar thought confidence engendered towards both high and low credibility as source characteristics can affect thought confidence through influencing the motivation to a specific outcome (Briñol et al., 2004). That said, participants in the current study might not be motivated enough to visit Iran as a tourism destination. Additionally, visiting Iran might not be congruent with participants’ goals as discussed in the cognitive appraisal theory (Skavronskaya et al., 2017; Ma et al., 2013) and, thus, the source characteristics manipulation did not affect the confidence they held in their thoughts.

Furthermore, thought confidence reported in response to the videos with low emotional arousal was similar to the high emotional arousal with low credibility stimulus. The similar thought confidence across the Music-Induced, Silent-Organic and Silent-Induced
conditions might be due to the negative brand image of Iran (Morakabati, 2011). Further, the similar thought confidence reported across experimental conditions might be due to the limited explanatory power of the self-validation hypothesis when it comes to perception bias and stereotypical images (Tasci, Gartner, & Cavusgil, 2007). That is, if individuals have already formed perceptions about a country, their perception bias does not allow them to be confident in their thoughts in response to the new information they receive. In other words, Iran’s brand image could be biased or distorted differently from its reality. However, due to perception bias, potential visitors were not confident in the thoughts they generated towards the tourism marketing stimuli of Iran. The findings highlight the importance of the combined effect of emotional arousal along with perceived credibility on prospective tourists’ thought confidence due to the intangible nature of services in this industry and the perceived risk pertinent to destination selection (Loda et al., 2009).

**6.5.4. Attitude across the Music-Organic, Music-Induced, Silent-Organic and Silent-Induced conditions**

Correspondingly, potential Australian visitors had the most favourable attitudes towards the highly emotionally arousing advertisements of Iran. The higher emotional responses evoked by the tourism stimuli led to a more positive attitude towards Iran; a finding which is consistent with prior attitudinal research on the role of emotions in shaping an individual’s attitude (Yoo & MacInnis, 2005; Niazi et al., 2012, Wang et al., 2017; Walters et al., 2012; Hosany & Prayag, 2013; Mackie & Worth, 1989). While social psychology scholars have stated that happiness results in more favourable attitudes (Briñol et al., 2007a); this research extends previous knowledge as emotional arousal is
also a significant determinant of a favourable attitude. Further, the findings imply that source credibility manipulation did not affect participants’ attitude across the four experimental conditions. Thus, emotionally arousing videos provoked more promising attitudes about Iran irrespective of the source credibility.

Unlike the insignificant impact of source credibility on attitude in this research, the broader tourism literature suggests that credible sources result in more favourable attitudinal judgements about tourism destinations (Petty & Cacioppo, 1986; Pornpitakpan, 2004; Croy, 2010). Furthermore, self-validation hypothesis studies suggest that highly credible messages evoke more positive attitudes (Tormala et al., 2006; Clark & Evans, 2014; Tormala et al., 2007); which is not supported in the current research. The similar results of attitude across high and low source credibility might be due to the negative image of Iran in a Westerner’s mind (Butler, O’Gorman, & Prentice, 2012) as the general attitude towards this tourism destination is not positive (Jalilvand et al., 2012) and, thus, high source credibility did not result in more favourable attitudinal judgements. The amount of potential visitors’ knowledge about Iran could possibly affect their attitude towards this tourism destination (Lankford & Howard, 1994). It can be concluded that potential visitors develop more positive attitudes about a destination in response to marketing stimuli that are emotionally arousing.

In summary, this research has indicated that emotional arousal evoked by a tourism advertisement plays a significant role in eliciting higher cognitive engagement, positive thoughts and attitude, and higher thought confidence about a tourism destination. In addition, when individuals are not emotionally engaged with the stimuli, high source credibility does not result in higher effortful thinking, thought confidence and attitude. In
such conditions, high source credibility only biases the valence of thinking. The findings of this research bear important implications for research and practice, which are highlighted in the following section.

6.6. Contributions of the thesis

This thesis provides theoretical, methodological and practical contributions. The current study advances knowledge on attitudinal research through investigating the role of emotional arousal in metacognition. The innovative application of FaceReader and skin conductance as physiological technologies to measure real-time emotional responses contributes to tourism research methodologically. In addition, this research provides practical implications for marketing managers for the design of tourism stimuli to affect potential visitors’ thoughts and attitude towards destinations.

6.6.1. Theoretical implications

Tourism scholars have called for the application of new theories and conceptual frameworks to study visitors’ attitude towards destinations (Wang, 2016; Sharpley 2014; Hadinejad et al., 2019a). In particular, tourism researchers have stated that it might not be beneficial to continue the application of current dominant theories of attitude, such as the theory of planned behaviour and theory of reasoned action, in future research (Gao et al., 2016). In this regard, recent tourism studies have suggested alternative theories of attitude from foundation disciplines like social psychology to advance the body of knowledge on attitudinal research in tourism (Wang, 2016; Hadinejad et al., 2019a). Therefore, the current thesis employed the self-validation hypothesis from social psychology as the theoretical framework. Self-validation hypothesis researchers have
called for the investigation of more potential factors affecting thought confidence (Briñol & Petty, 2015; Clark et al., 2013). This thesis addresses these gaps and, accordingly, makes four main contributions to both tourism and social psychology literature. These contributions are explained in the following sections.

First, this research provides a valuable contribution to the existing tourism attitudinal research through investigating the effect of the three dimensions of thinking as the key elements of the elaboration likelihood model, heuristic systematic model and self-validation hypothesis on visitors’ attitude. Thought confidence determines people’s attitude formation and thus affects the extent of persuasion in response to a message (Briñol & Petty, 2015). To the best of the researcher’s knowledge, this study is one of the first to examine the effect of the three dimensions of thinking, especially the role of metacognition, on attitude in tourism. Previous scholarly enquiry has revealed that only the first two dimensions of thinking, namely the amount of thought and valence of thinking, have been studied in tourism attitudinal research applying the elaboration likelihood model and heuristic systematic model (e.g., Tang et al., 2012; Sparks et al., 2013; Cheng & Loi, 2014). However, social psychology researchers have introduced a third dimension of thinking, thought confidence, with the potential to affect an individual’s attitude (Petty et al., 2002). The findings provide a theoretical foundation for the study of Australians’ attitudes towards Iran as a tourism destination highlighting the impact of all three dimensions of thinking on attitude. The current research advances theoretical knowledge on the significant role of emotional arousal in predicting cognition, metacognition and attitude in the tourism context.
Second, this thesis advances both tourism and social psychology literature concomitantly by examining the effect of emotional arousal on the three dimensions of thoughts and attitude. In particular, this thesis adds value to attitudinal research by demonstrating that, in addition to the valence of emotions, emotional arousal impacts the three dimensions of thinking. More specifically, emotional arousal affects the amount of thought generated by potential visitors, as well as the direction of their thinking, the extent of confidence they hold in their thoughts and the favourability of their attitude towards a tourism destination. This thesis advances the tourism and self-validation hypothesis literature by indicating that higher levels of emotional arousal (compared to low emotional arousal) lead to more engagement in cognitive effort. Furthermore, a higher level of emotional arousal also leads to more favourable thoughts and attitudes towards tourism destinations and higher levels of confidence in thinking. Social psychologists have previously examined the influence of a number of variables such as source credibility, self-affirmation, ease of retrieval on attitude, and group entitativity (Clark & Evans, 2014; Briñol et al., 2007b; Tormala et al., 2002; Clark & Thiem, 2015). However, there has been limited research in the self-validation hypothesis literature which explored the effect of emotions on thought confidence and subsequent attitude. Therefore, the role of emotion, specifically emotional arousal, is not well discussed in the self-validation hypothesis literature. Further, the self-validation hypothesis scholars have called for the investigation of additional factors potentially affecting thought confidence and attitude (Briñol & Petty, 2015; Clark et al., 2013).

Third, this thesis contributes to tourism literature by exploring the impact of source credibility on the three dimensions of thinking and subsequent attitude. The impact of source credibility on attitude has been well established in tourism studies (e.g. Kerstetter
This concept has also been frequently explored in the self-validation hypothesis literature (e.g. Briñol et al., 2004; Tormala et al., 2006; Clark & Evans, 2014; Tormala et al., 2007). However, there is a paucity of research in tourism exploring the role of source credibility in explaining attitude through the lens of metacognition. A significant contribution of this study concerns the similar impact of organic and induced agents on the amount of thinking, valence of thoughts, thought confidence and attitude. Potential visitors’ thought confidence and attitude were not impacted by source credibility manipulation in high and low emotional experimental conditions. This implication should be treated with caution as this finding might be due to the case study of this thesis, Iran, that participants might have already formed negative perceptions towards this country or have limited knowledge about this tourism destination. Therefore, theoretically, this may show that this theory does not function in the same manner in all conditions and varies depending on the message participants’ encounter.

Fourth, this thesis extends prior knowledge in the tourism and self-validation hypothesis literature through indicating that message design and recipient factors affect amount and valence of thought, thought confidence and attitude. Tourism scholars have indicated that much attention has been paid to advertising effectiveness and less research has explored the message design and its impact on visitors’ attitude (Amar et al., 2017). Further, a number of recipient and source factors such as source credibility, source majority versus minority status, bodily responses, power and valence of emotion have been investigated in social psychology (Tormala et al., 2007; Horcajo et al., 2010; Briñol & Petty, 2003; Briñol et al., 2007c; Briñol et al., 2007a). However, there is a lack of research which combines both recipient and source factors, such as emotional arousal and source
credibility, to assess the three dimensions of thinking and attitude. However, this thesis suggests that source credibility manipulation might not affect all the three dimensions of thinking and attitude depending on the level of emotional arousal elicited in response to the tourism marketing stimulus. Therefore, in the context of Iran’s tourism marketing stimuli, providing potential tourists with high or low credible information might not affect their attitude.

6.6.2. Methodological implications

This thesis contributes to tourism research methodologically by the novel application of physiological measurements, notably FaceReader and skin conductance. In addition, the use of these measurement tools, combined with a questionnaire and post-hoc interviews to explore the elicitation of emotion, is an innovative and more comprehensive measurement approach than relying on a single data collection method. The previous scholarly enquiry has criticised the application of self-report surveys as this approach reflects remembered emotional responses and, thus, might not be representative of actual emotions experienced (Li et al., 2015). This research has illustrated that physiological technologies provide objective, real-time and accurate measurements of emotions. On the other hand, self-report approaches are inexpensive, quick, and applicable to large sample sizes and allow participants to explain why they had a particular type of emotion, in general any type of emotional experiences, in response to marketing stimuli. Therefore, a combination of both methods allows researchers and practitioners to have a better and more accurate understanding of emotional responses. The benefits and limitations of each approach developed from the current study are presented in Table 6.1.
Table 6.1 Benefits and limitations of FaceReader, skin conductance, self-report and interview (findings of the current research)

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FaceReader</strong></td>
<td>Detects six basic emotions (plus neutral) and identifies valence of emotion and emotional arousal.</td>
</tr>
<tr>
<td></td>
<td>Provides objective data in real-time and tracks the fluctuation of emotional arousal and pleasure during the experiment.</td>
</tr>
<tr>
<td></td>
<td>Provides results of the analysis available after each experiment within the software.</td>
</tr>
<tr>
<td></td>
<td>Provides data in a text format for a more detailed analysis.</td>
</tr>
<tr>
<td><strong>Skin conductance</strong></td>
<td>Measures objective and real-time emotional arousal.</td>
</tr>
<tr>
<td></td>
<td>Provides information on skin conductance response frequency and amplitude (the number of peaks of emotions during an experiment as well as their magnitude).</td>
</tr>
<tr>
<td></td>
<td>Allows the researcher to export raw data in an Excel sheet for a more detailed analysis.</td>
</tr>
<tr>
<td></td>
<td>Men usually have thicker fingers compared to women which makes it hard to attach the electrodes to their fingers.</td>
</tr>
</tbody>
</table>
Sensitive to room temperature and humidity.

Skin conductivity can vary by several microsiemens due to participant's movement or medications and menstrual cycle.

Only provides information on emotional arousal, not valence.

<table>
<thead>
<tr>
<th>Self-report</th>
<th>Easy to understand for respondents.</th>
<th>Retrospective reflection of emotions which might be distorted, and non-representative of actual emotions experienced.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Simple and inexpensive to administer and takes less time to measure emotions compared to other techniques.</td>
<td>Unable to capture respondents’ emotional intensity accurately (level of arousal).</td>
</tr>
<tr>
<td></td>
<td>Can collect data on type and dimensions of emotion.</td>
<td>Unable to measure real-time emotions.</td>
</tr>
<tr>
<td></td>
<td>Can collect data from a large sample size.</td>
<td>Unable to capture moment-to-moment emotions.</td>
</tr>
<tr>
<td></td>
<td>Does not affect the natural reactions of participants.</td>
<td>Respondents might not be fully aware of the type of emotions they are experiencing (e.g., positive or negative surprise).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interview</th>
<th>Provides a deep understanding of respondents’ emotional experiences.</th>
<th>Is time-consuming.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Allows the researcher to find the reason why a respondent feels a particular type of emotion at a particular time of the experiment.</td>
<td>Transcribing, coding and reporting are costly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prone to interviewer bias.</td>
</tr>
</tbody>
</table>
6.6.3. Practical implications

In addition to making significant theoretical and methodological contributions, this thesis also offers a range of practical implications for tourism practitioners, marketing experts and destination managers. The results of Stage I provide significant implications for tourism practitioners, in particular, highlighting the need to design the executional cues (affective features) of marketing stimuli in a way to affect potential visitors’ emotions and, accordingly, their attitude towards tourism destinations (Amar et al., 2017; Yoo & MacInnis, 2005). One possible way to design the executional cues is to apply music to elicit emotions (Baumgartner et al., 2006; Pan & Hanusch, 2011). Further, the type of music is also important in eliciting positive emotions and high levels of emotional arousal. Accordingly, tourism marketing experts need to consider the type of music they need to apply in tourism advertisements to affect emotional responses and subsequent attitude towards destinations (Shahabi & Moghimi, 2016). In the current research, light rhythmic music has been shown to evoke positive emotions and greater levels of emotional arousal for the sample of Australians. This thesis has also indicated that Iranian traditional/folklore music did not elicit positive emotions in potential Australian visitors. The findings of the type of music cannot be generalised to the whole target market of Australians due to the limited sample size of this research. Accordingly, destination managers and marketers need to apply different kinds of music to find which type appeals to each target market.

The practical implications of this study provide suggestions for tourism managers, in particular, Iran’s destination marketers, regarding the images to use and content of a tourism advertisement to promote the destination and affect potential visitors’ attitudes.
The results of Delphi studies revealed that Australian tourism marketing academics and practitioners preferred to see local communities and their daily life in a tourism advertisement of Iran along with historical monuments, nature and food. In addition, participants in this research reported positive emotions in response to the food elements in the tourism advertisement, the daily life of Iranians and historical and cultural tourist attractions. Accordingly, Iranian tourism marketing experts can differentiate Iran from other destinations by including the images of local people, tourist attractions in this country and food in future tourism advertising stimuli if they aim to target Australians to visit Iran. According to Delphi panel members and results of Stage II, Iran tourism managers can position this country different from what is portrayed on media through showing the unique attractions of Iran, the daily life of Iranians and illustrating the Persian cuisine.

The results of Stage II provide valuable feedback for destination managers and marketers, especially for the design of marketing stimuli. Tourism managers need to create highly credible and emotionally arousing advertising in order to make potential visitors cognitively engaged with the stimuli. This research shows that to enhance credibility, tourism marketers need to apply organic agents and emotionally arousing stimuli to make potential visitors generate positive thoughts about the tourism destination, be confident in their thoughts and have a favourable attitude towards the destination. That said, Iranian destination managers can rely on the content and stories shared on social media by real tourists as a credible reference to encourage potential visitors to travel to this country. Applying narratives shared by real tourists and making them emotionally arousing should enhance the appeal of Iran as a tourist destination and, in turn, lead to an increase in the number of tourists visiting Iran.
Based on the findings of the current research, the valence of thoughts has the most robust influence on potential visitors’ attitudes towards Iran. This finding provides implications for destination managers to establish interventions such as advertising, public education, destination websites or narratives which evokes positive thinking about the destinations. The findings of this research imply that potential Australian visitors were not confident in travelling to Iran, tourism destination managers thus need to provide marketing stimuli with positive content to affect their attitude and travel planning. Further, by providing more information about Iran and showing the safety of this country using the daily life of Iranians and stories shared by real tourists as organic agents, tourism managers can improve potential Australian visitors’ confidence and attitudes about Iran. Further, disseminating the outcomes of this study regarding the images used in the stimulus and emotional features of the advertisement to tourism industry experts in Iran will help the destination managers and marketers to improve the design future marketing stimuli of this country.

6.7. Research limitations

This thesis extends previous attitudinal studies in tourism by applying a new theoretical framework to investigate Australians’ attitude towards Iran. Notwithstanding, there are some limitations with the current research which point to potential areas for future research.

Australian participants showed positive emotions and high levels of emotional arousal towards light rhythmic music compared to a traditional Iranian song and the video without music in Stage I. This positive emotional arousal might be due to their familiarity with the type of music. Previous literature has indicated that familiarity has the potential to
influence individuals’ emotional responses (Karacan, Cagiltay, & Tekman, 2010; Hyun, Kim, & Lee, 2011). Possibly, Australian participants were able to process information conveyed in the stimulus with the light rhythmic music quicker than the video with traditional Iranian music, which allowed them to react emotionally quickly and, thus, generate more positive emotions. However, familiarity with the music was not explored in the current research.

There was a discrepancy between the findings of skin conductance and self-report measures. While skin conductance showed similar levels of skin conductance response frequency and amplitude for the tourism advertisement with light rhythmic music and Iranian traditional music, self-report methods indicated different levels of emotional arousal for these two types of music in the tourism advertising stimuli. Similar concerns regarding the discrepancy between skin conductance and self-report findings have been raised in previous research (Grabe et al., 2000). This might be due to the effect of demographic factors of respondents. In other words, participants from a higher educational background might be able to report their emotions better than those with lower education, which has not been explored in the current research.

Stage I was conducted in a controlled laboratory; therefore, participants’ emotional responses might differ from when in a natural environment. Measuring participants’ emotional responses in a laboratory might affect their natural reactions. Emotion measurement via physiological tools in a laboratory setting might make participants feel they are being assessed. Further, conducting research in a laboratory using physiological technologies might make participants over- or under-emphasise their emotions. However,
participants’ emotional experiences might also be affected by the factors present in a natural setting (Bolls et al., 2001).

Another limitation relates to the lack of generalisability of this research to other visitors as the focus was on the Australian market. This thesis measured Australians emotions in Stage I, followed by thinking and attitude towards Iran in Stage II. Although it is beneficial to investigate Australians’ attitudes towards Iran as a potential market, other nationalities might have different opinions about this tourism destination. Potential visitors from other countries in the Middle East region that are geographically closer to Iran, and might have more knowledge about this country, could possibly have different attitudes towards Iran as a tourism destination. Further, including a pre- and post-test experimental design might reveal potential visitors’ attitude change which was not assessed in the current study.

The current study assessed the effect of emotion and source credibility manipulation on the three dimensions of thinking and attitude. Potential Australian visitors’ attitude towards Iran might be influenced by a number of factors such as their motivation to visit the place, their knowledge about the destination or their personality. Therefore, considering other possible factors with the potential to influence Australian visitors’ attitudes towards Iran might provide more insightful results.

Another issue to consider is that the researcher only measured thought confidence using the existing scales available in social psychology. However, the researcher did not investigate if the reported thought confidence comes from participants’ gut feelings or there is a logical analysis behind it. The researcher doubts that participants’ thought confidence would be more affective rather than cognitive.
The final limitation of this thesis stems from the manipulation of the source credibility. This limitation is due to the application of tourism advertising of Iran as this country does not generate a strong positive country image and is associated with political instability and risk-related issues (Morakabati, 2011; Sharifpour et al., 2014). Assigning participants to organic and induced agent conditions did not have a major and significant impact on their thinking and attitude. The negative image of Iran among westerners, the perception bias and stereotypical images are the potential reasons for this issue. Therefore, measuring Australians’ attitude towards a country with strong brand image might lead to different results. However, this research adds value to attitudinal research in tourism as it confirms the robust contribution of cognition and metacognition to attitude irrespective of the strength of a destination brand. In addition, this research advances tourism knowledge by employing an experimental design which is not common in the field (Fong et al., 2016) and employing a bigger sample size for each experimental condition compared to the studies in the self-validation hypothesis literature and similar tourism scholarship (e.g. Briñol & Petty, 2003; Briñol et al., 2007a; Wang & Sparks, 2016).

6.8. Directions for future research

The findings from this thesis, along with the limitations noted in the previous section, point to a number of potential avenues for further investigation of physiological technologies, Australian attitude and perceptions about Iran. The potential future research is discussed below.

Future studies could measure individuals’ emotional experiences towards different types of music using physiological measurements, such as skin conductance and FaceReader. Further, future research needs to investigate the role of familiarity with the type of music
in affecting individuals’ emotional responses using physiological measurements. For example, future researchers can measure Australian emotional responses towards an advertisement with western and familiar versus eastern traditional music using physiological technologies.

Further comparison between the findings of physiological technologies and self-report measurements of emotional responses could be a potential field of investigation. In addition, emotional responses could be affected by myriad factors such as being aware of own emotional experiences, knowledge about the marketing stimuli as well as emotional intelligence. As such, future research needs to compare the findings of skin conductance with self-report measures considering demographic as well as other factors such as emotional or cultural intelligence.

Another opportunity to consider is replicating this study in a natural environment as opposed to a laboratory setting. Alternatively, researchers can apply physiological measures, specifically FaceReader, in visitor interpretation centres and tourist attractions such as theme parks or museums to provide an objective analysis of visitors’ emotional experiences in real-world environments. In addition, researchers could address the small sample size of the current study by employing more participants.

Future research could be enhanced by assessing other nationalities’ emotional responses towards tourism advertisements of Iran applying physiological measures. Further, it would also be beneficial to conduct a cross-cultural comparison of emotional responses towards tourism marketing stimuli of Iran that applies physiological measurements. It would also add value to the existing attitudinal research in Iran to explore other nationalities’ thinking and attitude towards this country. For instance, the scholarly
enquiry could focus on other potential visitors’ attitudes towards Iran who are geographically closer to this country or have more knowledge and information about this tourism destination. In addition, measuring potential visitors’ attitudes towards Iran prior to undertaking the experiment as well as after watching the stimulus might reveal the attitude change.

Scholars could incorporate other variables such as motivation to visit a destination, personality of participants, emotional and cultural intelligence in predicting Australians’ attitudes towards Iran. Further, as a potential field of investigation, researchers could discover if individuals’ thought confidence is affected by their emotions or a more rational procedure.

Finally, future studies are recommended to replicate this study by applying a tourism video of a politically stable country with a positive image as the context of the study. Future scholars can measure Australians’ attitude towards the countries they know more or have a strong brand association with such as New Zealand, the United States or Canada to observe whether the constructs of this thesis are identified as significant.

### 6.9. Concluding remarks

This study clearly demonstrates that besides cognition, metacognition is a central determinant of attitude formation, especially in the context of tourism. Having said that, potential visitors not only need to be cognitively engaged with a tourism advertisement and/or to generate positive thoughts, they also need to be confident in their thoughts to develop a favourable attitude towards destinations. In this regard, the characteristics of tourism stimuli such as emotional arousal and perceived credibility play an important
role. Tourism stimuli characteristics affect cognition, metacognition and attitude towards destinations – highly emotionally arousing advertisements facilitate a situation where potential visitors can engage cognitively with the stimuli and have more positive thoughts about that place. Further, a highly emotionally advertising stimulus makes potential visitors more confident in their thinking about the destination and elicits more favourable attitudes. However, the image of different countries affects the credibility of the messages that a tourism destination attempts to send to its potential visitors. Tourism managers, including countries with a negative brand image, can utilise the content created by real tourists as highly credible sources to positively impact potential visitors’ thoughts and attitudes towards tourism destinations.

This thesis offers tourism practitioners and destination marketers to consider two issues prior to the launch of tourism stimuli in the market, the type of music and target market. Tourism destination marketers need to ensure the music applied in the tourism advertisements appeals their target market as the type of music determines the elicitation of emotional responses to tourism advertisements, emotional engagement with the stimuli and affects potential visitors’ attitudes.
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Hagger, M. S. (2015). Retired or not, the theory of planned behaviour will always be with us. *Health Psychology Review, 9*(2), 125–130


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Appendix A: Summary of the self-validation hypothesis studies

<table>
<thead>
<tr>
<th>Research</th>
<th>Main concepts of the study</th>
<th>Major Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petty et al. (2002)</td>
<td>The valence of thought, thought confidence, likelihood, desirability, attitude, attitude confidence, need for cognition</td>
<td>Results show that when positive thoughts toward a message dominate, increasing confidence in those thoughts increases persuasion and vice versa for negative thoughts.</td>
</tr>
<tr>
<td>Tormala et al. (2002)</td>
<td>Elaboration, need for cognition, attitude, thought confidence, perceived difficulty</td>
<td>Findings of the research indicate that ease of retrieval occurs under high-elaboration conditions and people were more influenced by their thoughts and this was mediated by their thought confidence.</td>
</tr>
<tr>
<td>Briñol &amp; Petty (2003)</td>
<td>Head movements, argument quality, feeling, elaboration manipulation, attitude, thought confidence</td>
<td>Researchers found that when the message arguments were strong, nodding head showed more persuasion than shaking.</td>
</tr>
<tr>
<td>Briñol et al. (2004)</td>
<td>Thought confidence, need for cognition, attitude, argument cogency, source credibility</td>
<td>Results show that increasing confidence in positive thoughts enhanced advertisement effectiveness and source credibility influences consumers’ attitude by influencing their thought confidence.</td>
</tr>
<tr>
<td>Tormala et al. (2006)</td>
<td>Thought confidence, attitude, source credibility, perceived expertise</td>
<td>It is demonstrated that people’s positive thoughts toward a message and high source credibility lead to more favourable attitudes.</td>
</tr>
<tr>
<td>Briñol et al. (2007)</td>
<td>Attitude, need for cognition, thought confidence, emotion, behavioural intention</td>
<td>Researchers indicated that emotion can affect people’s evaluative judgements by influencing their thought</td>
</tr>
<tr>
<td>Authors</td>
<td>Variables</td>
<td>Findings</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Briñol et al.</td>
<td>Attitude, thought confidence, self-affirmation, mood</td>
<td>Confidence and people who felt happy reported more thought confidence.</td>
</tr>
<tr>
<td>(2007)</td>
<td></td>
<td>Findings of the research show that self-affirmation can decrease information processing when induced prior to message reception and self-affirmation can affect thought confidence.</td>
</tr>
<tr>
<td>Briñol et al.</td>
<td>Attitude, thought confidence, power, confidence, pro-arguments or counterarguments</td>
<td>Findings indicate that a high-power role increased the perception of confidence and in a high-power role, argument quality affects attitude more. Results also showed that power did not affect participants’ mood, but power affected their thought confidence.</td>
</tr>
<tr>
<td>(2007)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tormala et al.</td>
<td>Source credibility, perceived trustworthiness</td>
<td>Researchers found that the effect of source credibility on thought confidence is dominant when source information follows the message.</td>
</tr>
<tr>
<td>(2007)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Briñol et al.</td>
<td>Attitude, thought confidence, body posture, mood</td>
<td>Findings of the research show that the effect of the direction of thoughts on self-related attitude was significantly greater when participants wrote their thoughts in a confident rather than in doubtful posture and such posture affected participants’ thought confidence.</td>
</tr>
<tr>
<td>(2009)</td>
<td></td>
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<tr>
<td>Horcajo et al.</td>
<td>Attitude, thought confidence, source status</td>
<td>Researchers found that the majority status of the source increased participants’ thought confidence.</td>
</tr>
<tr>
<td>(2010)</td>
<td></td>
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<tr>
<td>Clarkson et al.</td>
<td>Attitude, thought confidence, thought consistency, ease of retrieval</td>
<td>Findings indicate that thought confidence played a mediating role in the mere thought effect and it accounts for reversals in</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Study Details</td>
<td>Findings/Insights</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Evans &amp; Clark,</td>
<td>Attitude, thought confidence, message source</td>
<td>Results show that self-monitoring was found to interact with source manipulation to influence thought confidence and persuasion.</td>
</tr>
<tr>
<td>(2012)</td>
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<tr>
<td>Blankenship et al.</td>
<td>Thought confidence, trait driving anger, aggressive behaviour likelihood measure</td>
<td>Researchers found that participants higher in driving anger were more confident in their thoughts in a provoking situation and their thought confidence played a mediating role in the effect of trait driving anger on anger toward the provocation.</td>
</tr>
<tr>
<td>(2013)</td>
<td></td>
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<tr>
<td>Clark et al.</td>
<td>Need for cognition, thought confidence, source credibility, post-message attitude</td>
<td>Findings of the research demonstrated that when participants focused on the source, highly motivated participants were more confident in their thoughts and for those who focused on the issue, their self-validation was higher when credibility was high.</td>
</tr>
<tr>
<td>(2013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarkson et al.</td>
<td>Thought confidence, personal fear of invalidity, attitude</td>
<td>Results show that dispositional and situational fear of invalidity heightens reflection on attitude-inconsistent thoughts and heightened reflection interacted with individuals’ thought confidence to determine whether attitude-inconsistent thoughts were assimilated or refuted and consequently whether individuals’ attitude and behavioural intentions depolarised or polarised following a sufficient opportunity for thought.</td>
</tr>
<tr>
<td>(2013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clark &amp; Evans,</td>
<td>Thought confidence, source credibility, post-message attitude</td>
<td>Results show communicators with high credibility elicit great confidence and when messages are pro-attitudinal, credible sources affecting self-validation.</td>
</tr>
<tr>
<td>(2014)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author(s)</td>
<td>Topic</td>
<td>Description</td>
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<td>---------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Clark &amp; Thiem (2015)</td>
<td>Thought confidence, the need for cognition, group entitativity, post-message attitude</td>
<td>Research findings show that participants rated a highly entitative group as more likely to present valid information and they were more confident and had attitudes that were more reflective of their message-related thoughts when source entitativity was higher.</td>
</tr>
<tr>
<td>Gascó et al. (2018)</td>
<td>Attitude, thought confidence, the origin of thoughts</td>
<td>Results indicated that when the external origin was associated with properties of validity, people relied on their thoughts more than when thoughts were perceived to come from an internal origin associated with low validity.</td>
</tr>
</tbody>
</table>
Appendix B: Research designs in the self-validation hypothesis studies

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Sample and experiment</th>
<th>Procedure of experiment</th>
</tr>
</thead>
</table>
| Petty et al. (2002) Undergraduates at Ohio State University | Four experiments:  
  • The first experiment was to distinguish thought confidence from other thought properties such as desirability, likelihood and valence.  
  • The second experiment examined the effect of the nature of thought (favourable or unfavourable thought) on persuasion.  
  • The third experiment examined the effect of argument quality (strong or weak argument) and the amount of thinking on persuasion.  
  • The fourth experiment examined the effect of argument quality, consensual validation (if one’s opinion is similar to others) and the need for cognition (an individual’s tendency to engage in thinking) on persuasion. |  
  • Participants received a persuasive message, listed their thoughts and rated their thought in terms of valence, confidence, likelihood and desirability  
  • All students received two strong and two weak arguments and were asked to list their thoughts, either in favour or against the message and rated their confidence for each thought  
  • Participants received a strong or weak argument and then listed their thoughts and rated their thought confidence and reported how much they thought about the argument  
  • Students received a strong or weak argument and then listed their thoughts. Then, students were given artificial feedback on their thoughts to influence their confidence, then rated their thought confidence and filled in the need for cognition scale. |
Tormala et al. (2002)
Undergraduates at Ohio State University

Three experiments:

- The first experiment examined the effect of ease of retrieval on the need for cognition.
- The second experiment investigated the effect of the amount of thinking and positive thoughts on ease of retrieval.
- Experiment three was to study the mediating role of thought confidence in the effect of ease of retrieval on persuasion.

Undergraduate psychology students

Four experiments:

- The first experiment was designed to study the effect of argument quality and head movement, nodding or shaking, on persuasion.
- Experiment two investigated the effect of argument quality, head movement and the amount of thinking on thought confidence.
- The third experiment explored the effect of head movements on thought confidence.
- Students completed the need for cognition scale and were asked to generate two or eight counterarguments against a persuasive message.
- Participants were asked to generate thoughts, either high or low conditions and then they were asked to list positive thoughts toward the persuasive message.
- Students received a persuasive message and were asked to generate two or ten positive thoughts toward the message. Then, they were asked to rate their thought confidence in the positive thoughts on a nine-point scale.
- Students were exposed to a strong or weak argument and were asked to nod or shake their heads when listening to a persuasive message and to list their thoughts and rate their attitude and their feelings while listening to the message.
- Participants listened to a strong or weak argument and were told to nod or shake their heads when listening to a persuasive message and to list their thoughts (positive, negative, or neutral) and rate their attitude and their feelings while listening to the message. Students were also asked to answer some questions to assess their amount of thinking.
- Students were exposed to strong or weak arguments and were asked to nod or shake their head while listening to a message and then report their thoughts and attitude and their thought confidence.
The fourth experiment was designed to examine the effect of dominant versus non-dominant hand on persuasion.

Briñol et al. Undergraduates at a Spanish university and a mid-western university

Two experiments:

- The first experiment examined consumers’ thought confidence.
- Experiment two explored the effect of source credibility on thought confidence.

Tormala et al. Undergraduates at Ohio State University and Indiana University

Two experiments:

- Experiment one examined the effect of source credibility and argument quality on persuasion.
- The second experiment was designed the same as the first experiment but was conducted at a different university.

Students were exposed to a persuasive message. They were asked to write three good or bad qualities they had as potential professionals. Half of the students were asked to list their thoughts with their dominant hand and the other half were told to list their thoughts with their non-dominant hand. Then, they were asked to rate their thought confidence.

- Students were exposed to an advertisement composed of strong or weak arguments and asked to list their thoughts toward it and rate their confidence in their thoughts. Finally, students completed the need for cognition scale.
- Participants were randomly asked to read an advertisement (with high or low source credibility). Students were asked to list their thoughts and then rate their thought confidence. Finally, students completed the need for cognition scale.

- Participants received a persuasive message (with strong or weak arguments) and were asked to list their thoughts. Then students received source credibility information and rated their attitude and their thought confidence. Following the thought confidence measurement, students were told to report their amount of thinking about the expertise of the source and report how deeply they thought about the message.
- Students were exposed to a persuasive message (composed of strong or weak arguments) and were asked to list their thoughts. Then students received source credibility
Undergraduate psychology students at Ohio State

Four experiments:

- The first experiment was designed to examine the effect of emotion on persuasion.
- Experiment two explored the effect of emotion on thought confidence.
- The third experiment explored the effect of emotion and need for cognition on thought confidence.
- The fourth experiment was designed to examine the effect of emotion on thought confidence and behavioural intentions.

Participants received a persuasive message (composed of strong or weak arguments). Students were asked to write down their happy and sad personal experiences and then think back to the message and list their thoughts and rate the strength of the arguments and their attitude.

Students received a persuasive message (composed of strong or weak arguments) and listed their thoughts toward the message. Students were asked to write their happy and sad personal experiences and then think back to the message and list their thoughts and rate the confidence in their thoughts.

Participants received a persuasive message (composed of strong or weak arguments) and then students received instructions to feel happy or sad by reading statements. Then students completed the need for cognition scale and listed their thoughts, rated their attitude and thought confidence.

Participants were exposed to a persuasive message (composed of strong or weak arguments) and were instructed to write about happy or sad personal experiences. Students were asked to list their thoughts, assess their behavioural intentions by reporting how much time they had to do the behaviour.
Briñol et al. (2007) Undergraduate students enrolled in introductory psychology courses at the Universidad Autónoma de Madrid

Four experiments:

- The first experiment was designed to examine the effect of self-affirmation when it precedes a message on attitude change by influencing the degree of information processing.
- Experiment two explored the role of self-affirmation in influencing attitude when it follows a message.
- The third experiment examined the role of self-affirmation and mood in influencing attitude, using only strong persuasive messages.
- The fourth experiment explored the effect of self-affirmation on thought confidence.

Briñol et al. (2007) Undergraduate psychology students at the Universidad Autónoma de Madrid

Five experiments:

- Participants received Grimm et al.’s Individualism-Collectivism Scale and listed their experiences related to their most and least important values. Then students received an advertisement (composed of strong or weak arguments) and rated their attitude.
- Participants received a persuasive message (composed of strong or weak arguments) and then students were assigned to self-affirmation condition and finally rated their attitude.
- Students were assigned to self-affirmation task either before or after the persuasive message (only strong arguments) and then they were asked to rate their attitude and record the feelings they had during the task.
- Students were assigned to self-affirmation task either before or after the persuasive message; after listing their thoughts, students were asked how confident they were about their thoughts.

- Students were assigned either to a low or high-power role (a boss versus an employee role) and then reported how confident they felt.
- Students were assigned either to a low or high-power role (a boss versus an employee role) and then they received
• The first experiment examined the effect of being in a powerful position on people’s general sense of confidence.

• The second experiment examined the role of power induced prior to message in attitude.

• The third experiment investigated the effect of power on attitude when power induced after the message.

• Experiment four explored the effect of power when power induced after the message and direction of thoughts (favourable versus unfavourable) on thought confidence and mood.

• Experiment five was designed to explore the effect of power on attitude, using only strong arguments.

Tormala et al. Undergraduates at Ohio State University (2007)

Two experiments:

• The first experiment examined the effect of source credibility on thought confidence.

• Experiment two examined the effect of source credibility, all participants receiving source information before listing thoughts, on thought confidence.

• Participants received a persuasive message (composed of strong or weak arguments). They were then asked to rate their attitude.

• Students received a message and were asked to list their thoughts and rate their attitude.

• Students were exposed to a persuasive message (strong arguments) with high or low credibility conditions and then they were randomly assigned to receive source information either before or after the message. Students were asked to list their thoughts in response to the message, rate their attitude and report their thought confidence.

• Students were exposed to a persuasive message (strong arguments) with high or low credibility and all participants received source information before listing thoughts. After
Briñol et al. Undergraduates at Ohio State University (2009)

One experiment:

- The experiment was designed to examine the impact of participants' posture on self-evaluation and thought confidence.

Horcajo et al. Undergraduate psychology students at the Universidad Autónoma de Madrid (2010)

Three experiments:

- The first experiment examined the effect of majority source status on attitude change when information is introduced following a message.
- The second experiment explored the effect of majority source status, when it precedes a message, on attitude change.
- Experiment three examined the effect of majority source status with only strong arguments on attitude change.

Clarkson et al. Undergraduate students (2011)

- Participants were asked to list their thoughts, students were asked to rate their thought confidence and attitude.
- Participants were asked to write their personal qualities while sitting with their chest out (confidence posture) or their back curved (doubt posture). While maintaining their posture, students were asked to list either three positive or three negative personal traits relating to future professional performance. Students rated their attitude and their thought confidence.
- Participants received a persuasive message (composed of strong or weak arguments) and assigned to the majority or minority source status conditions. Students were asked to list their thoughts, and then filled out PANAS scale and reported their thought confidence and rated their attitude.
- Students were exposed to a persuasive message with the majority or minority source status conditions and then received a message (composed of strong or weak arguments). Following receiving the message, students were asked to list their thoughts and rate their attitude.
- Participants received a persuasive message (composed of strong or weak arguments) and then participants were randomly assigned to a majority (vs. minority) source status induction either before or after the persuasive message. Finally, students were asked to rate their attitude.
- Participants received different amounts of time to think and list their thoughts about an issue, reported their attitude.
Three experiments:

- The first experiment tested the role of thought confidence in the mere thought effect when participants receive different amounts of time to think about an issue.
- Experiment two examined the role of thought confidence in the mere thought effect when participants received more than sufficient time to think about an issue.
- The third experiment explored the role of thought confidence in the mere thought effect when participants received an equal and sufficient amount of time to think about an issue.

Evans & Clark (2012)

Undergraduate students

One experiment:

- The experiment was designed to examine the effect of source attributes on thought confidence depending on differences in self-monitoring.

Blankenship et al. (2013)

Psychology students at a Midwestern university

Two experiments:

- The first experiment examined the role of thought confidence in the anger experience.
The second experiment examined the role of thought confidence in the anger experience and measured behavioural intentions to examine whether thought confidence would mediate the relation between anger and behavioural intentions.

Clark et al. Undergraduates at the University of Iowa

Two experiments:

- The first experiment examined the mediating role of self-validation between the valences of participants’ thoughts and the credibility of the message source.
- Experiment two explored the effect of source versus issue evaluation goals in the same experimental designs.

Clarkson et al. Participants

Three experiments:

- The first experiment assessed people’s fear of invalidity in relation to differential reflection on self-generated attitude-consistent and tested the role of thought confidence as a determinant of the
- Participants were subjected to the same procedure as in experiment one, but prior to consistency manipulation, they reported their thoughts and anger.
- Participants received a message (composed of strong or weak arguments). After receiving the message, the credibility of the communicator was manipulated. Following source credibility manipulation, participants completed the need for cognition scale. Participants reported their thoughts, rated their attitude and reported their thought confidence. Finally, participants were asked to rate the valence of their thoughts.
- Students were asked to focus on the message source or the issue before receiving the message. Participants received a persuasive message (composed of strong or weak arguments) and the source credibility was manipulated after that. Students were asked to list their thoughts and rate their attitude and report their thought confidence.
- Participants completed personal fear of invalidity scale and then were asked to focus on a message and respond to a series of questions to assess their thoughts. Participants were asked to report their attitude and list their thoughts. After listing thoughts, they received false feedback about the strength of their thoughts to change their thought confidence. Following the feedback, participants again reported their attitude.
assimilation versus refutation of these self-generated thoughts.

- The second experiment examined the extent to which attitude effects in experiment one extends to behaviour.

- Experiment three assessed the effect of the fear of invalidity on people’s thought and these thoughts interact with people’s thought confidence to alter their attitude and behavioural intentions.

Clark & Evans (2014)

Undergraduates at the University of Iowa

Three experiments:

- The first experiment was designed to explore the effect of counter-attitudinal messages on self-validation.

- The second experiment examined different pre-message defence motivation effects on validation associated with low source credibility.

- The third experiment investigated the effect of pro-attitudinal advocacy on self-validation.

- Participants were asked to think about an issue and then indicate their behavioural intentions toward it. Participants were randomly assigned to alter their fear of invalidity. Participants were asked to list their thoughts and they completed a recall task to change their thought confidence. Finally, participants reported their attitude before reporting their willingness to do a voluntary task related to the message.

- Participants indicated their attitude toward an issue and then they were randomly assigned to alter their fear of invalidity. Afterwards, they were asked to consider their thoughts and they received feedback to alter their thought confidence. Participants indicated their attitude again and showed their thought confidence toward their consistent and inconsistent thoughts separately.

- Participants received a counter-attitudinal message (composed of strong or weak arguments) and then they were informed of the source credibility. After reading the message, participants were asked to list their thoughts and rate their thought confidence and rate the valence of their thoughts post-message attitude.

- The procedure of the second experiment was similar to the first experiment, but before receiving the message, the individual’s differences in motivation to defend one’s attitude toward the issue were measured.
<table>
<thead>
<tr>
<th>Study</th>
<th>Participants</th>
<th>Three experiments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark &amp; Thiem (2015)</td>
<td>Undergraduates at the University of Iowa</td>
<td>• The first experiment examined the effect of perceived entitativity on expectations about the validity of the information.</td>
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<tr>
<td></td>
<td></td>
<td>• The second experiment was designed to explore the effect of perceived entitativity on self-validation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The third experiment investigated the effect of different amount of information processing on confidence-inducing effects of source entitativity.</td>
</tr>
<tr>
<td>Gascó et al. (2018)</td>
<td>Students from a public high school in Albacete and undergraduate students at a university in Madrid, Spain</td>
<td>• The third experiment is similar to experiment two, while the information in the message was designed to create a positive pre-message attitude.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Participants received a message from a group that was designed to manipulate its entitativity. Participants were asked to imagine a message from this group and report their expectations about the validity of the information and perceived group entitativity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Participants received a message, listed their thoughts and then received information about the entitativity of the source. Participants were then asked to complete dependant measures of post-message attitude, thought confidence, and thought valence.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Participants received a message, but they did not receive any instruction to think about this information. Source entitativity was manipulated and the dependent measures and the need for cognition were assessed.</td>
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<tr>
<td></td>
<td></td>
<td>• Participants were asked to generate positive or negative thoughts about one of two diets. After thought listing task, participants had to choose the origin of thought. Participants were finally asked to rate their attitude toward the diets.</td>
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<tr>
<td></td>
<td></td>
<td>• Participants read about bariatric surgery and then were randomly assigned to write either positive or negative thoughts about it. Afterwards, participants were randomly assigned to the internal or external origin condition. They needed to assess their attitude toward this surgery.</td>
</tr>
</tbody>
</table>
• The second experiment aimed to manipulate the proposed mediator of the Thought Origin effect.

• The third experiment replicated the second experiment by shifting to a meditational approach.

• Participants were randomly assigned to write negative or positive thoughts about the topic. Afterwards, they were randomly assigned to either the internal or external thought origin condition. Participants needed to rate their attitude, thought confidence, behavioural intentions, perceived bias and correction.
Appendix C: Recruitment form for the Delphi study

Effect of Emotion on Attitude: A Self-Validation Analysis in Tourism
RECRUITMENT FORM for Delphi Study
GU Ref No: 2017/488

| Research Team | Prof Noel Scott (Griffith Institute for Tourism) Griffith University  
|               | Senior Research Fellow Dr. Brent Moyle (Griffith Institute for Tourism) Griffith University  
|               | Dr Anna Kralj (Undergraduate Program Director) Griffith University  
|               | PhD candidate Arghavan Hadinejad (Department of Tourism, Sport and Hotel Management) Griffith University  
|               | Email: noel.scott@griffith.edu.au  
|               | b.moyle@griffith.edu.au  
|               | a.kralj@griffith.edu.au  
|               | arghavan.hadinejad@griffithuni.edu.au |

You are invited to participate in a Delphi Study. The research will take place through an online survey via Qualtrics. This research will require you to view a computer screen for about 10 minutes while viewing tourism-related images of Iran and then rate the emotive aspects of images. The high rated images will be selected for the final stimuli.

You will not be identified in the survey. No personal information will be collected. Your responses will be recorded, and the data will be analysed by the research team.

This study abides by the guidelines of the ethical review process of Griffith University. You are welcome to discuss your participation in this study with the researchers listed above. If you would like to speak to an officer of the University not involved in the study, you may contact the Manager, Research Ethics to 3735 4375 or research-ethics@griffith.edu.au.

To register your interest please email arghavan.hadinejad@griffithuni.edu.au
Appendix D: Focus group recruitment form

Effect of Emotion on Attitude: A Self-Validation Analysis in Tourism
RECRUITMENT FORM for Focus Group
GU Ref No: 2017/488

| Research Team | Prof Noel Scott (Griffith Institute for Tourism) Griffith University
|               | Senior Research Fellow Dr. Brent Moyle (Griffith Institute for Tourism) Griffith University
|               | Dr Anna Kralj (Undergraduate Program Director) Griffith University
|               | PhD candidate Arghavan Hadinejad (Department of Tourism, Sport and Hotel Management) Griffith University
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|               | arghavan.hadinejad@griffithuni.edu.au

You are invited to participate in a Focus Group. The research will take place through face-to-face discussion in Griffith University. This research will require you to view a set of videos of Iran tourist attractions for about 30 minutes and then select the moments which are the most arousing or exciting which is followed by a discussion on the videos. The selected moments will be selected for the final stimuli.

You will not be identified in the survey. No personal information will be collected. Your responses will be recorded, and the data will be analysed by the research team.

This study abides by the guidelines of the ethical review process of Griffith University. You are welcome to discuss your participation in this study with the researchers listed above. If you would like to speak to an officer of the University not involved in the study, you may contact the Manager, Research Ethics to 3735 4375 or research-ethics@griffith.edu.au.

To register your interest please email arghavan.hadinejad@griffithuni.edu.au
Appendix E: Consent form for the focus group

Effect of Emotion on Attitude: A Self-Validation Analysis in Tourism
CONSENT FORM for Focus Group
GU Ref No: 2017/488

| Research Team | Prof Noel Scott (Griffith Institute for Tourism) Griffith University
|               | Senior Research Fellow Dr. Brent Moyle (Griffith Institute for Tourism) Griffith University
|               | Dr Anna Kralj (Undergraduate Program Director) Griffith University
|               | PhD candidate Arghavan Hadinejad (Department of Tourism, Sport and Hotel Management) Griffith University
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|               | a.kralj@griffith.edu.au
|               | arghavan.hadinejad@griffithuni.edu.au |

This Focus Group aims to contact 10 tourism experts to select the arousing or exciting parts of a set of Iran tourism videos. Since the audience of the current research is Australians that will be exposed to Iran tourism video, 10 tourism experts from Griffith University, Australia have been selected. The author will contact all participants via email to encourage to participate in the Focus group. Following the acceptance of the participants, the author will arrange a meeting to show a set of Iran tourism videos to experts and ask their opinion about the most exciting part of the advertisements.

By signing below, I confirm that I have read and understood the information sheet and in particular:

- I understand that my involvement in this research entails taking part in an exercise that involves watching tourism videos where my feedback will be recorded;
- I understand that my involvement in this research will require a one-hour task watching videos and selecting the exciting parts;
- I have had any feedback to my satisfaction;
• I understand the risks involved, and that I am free to withdraw at any time, without comment or penalty;
• I understand that there will be no direct and immediate benefit to me from participation in this research;
• I understand that my participation is voluntary, and that my responses are completely anonymous – no identifying information is required;
• I understand that if I have any additional questions I can ask the project manager (Arghavan Hadinejad) using the contact details provided on the information sheet which I have retained;
• If I have any concerns about the ethical conduct of the project, I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 3735 4375 (or research-ethics@griffith.edu.au);
• I understand that in accordance with Griffith University policy, the research data will be retained for 5 years;
• I understand that the data analysis will be used for further research.

☐ I agree to participate in the project.

<table>
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<tr>
<th>Name</th>
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<td>Signature</td>
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<td>Date</td>
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Appendix F: Consent form for the pilot study

Effect of Emotion on Attitude: A Self-Validation Analysis in Tourism
CONSENT FORM for Pilot Study
GU Ref No: 2017/488

<table>
<thead>
<tr>
<th>Research Team</th>
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<tbody>
<tr>
<td>Prof Noel Scott (Griffith Institute for Tourism) Griffith University</td>
</tr>
<tr>
<td>Senior Research Fellow Dr. Brent Moyle (Griffith Institute for Tourism) Griffith University</td>
</tr>
<tr>
<td>Dr Anna Kralj (Undergraduate Program Director) Griffith University</td>
</tr>
<tr>
<td>PhD candidate Arghavan Hadinejad (Department of Tourism, Sport and Hotel Management) Griffith University</td>
</tr>
</tbody>
</table>

Email: noel.scott@griffith.edu.au  
     b.moyle@griffith.edu.au  
     a.kralj@griffith.edu.au  
     arghavan.hadinejad@griffithuni.edu.au

By signing below, I confirm that I have read and understood the information sheet and in particular:

- I understand that my involvement in this research entails taking part in an experiment that involves watching tourism images where my facial movements will be recorded, and I will complete the Self-Assessment Manikin scale and open-ended question;
- I understand that my involvement in this research will require a five-minute test using the FaceReader instrument as well as completing self-report questionnaire;
- I have had any questions answered to my satisfaction;
- I understand the risks involved, and that I am free to withdraw at any time, without comment or penalty;
- I understand that there will be no direct and immediate benefit to me from participation in this research but that I will receive a $10 gift voucher for participation;
- I understand that my participation is voluntary, and that my responses are completely anonymous – no identifying information is required;
- I understand that if I have any additional questions I can ask the project manager (Arghavan Hadinejad) using the contact details provided on the information sheet which I have retained;
- If I have any concerns about the ethical conduct of the project, I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 3735 4375 (or research-ethics@griffith.edu.au);
• I understand that in accordance with Griffith University policy, the research data will be retained for 5 years;
• I understand that the data and interview analysis will be used for further research.

I agree to participate in the project.

☐ I agree to participate in the project.

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<th>Name</th>
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<td>Email</td>
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<td>Signature</td>
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<td>Date</td>
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Appendix G: Recruitment form for the pilot study

Effect of Emotion on Attitude: A Self-Validation Analysis in Tourism

RECRUITMENT FORM for Pilot Study

GU Ref No: 2017/488

**Research Team**

<table>
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<tr>
<th></th>
<th>Prof Noel Scott (Griffith Institute for Tourism) Griffith University</th>
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<tbody>
<tr>
<td></td>
<td>Senior Research Fellow Dr. Brent Moyle (Griffith Institute for</td>
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<tr>
<td></td>
<td>Tourism) Griffith University</td>
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<tr>
<td></td>
<td>Dr Anna Kralj (Undergraduate Program Director) Griffith</td>
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<tr>
<td></td>
<td>University</td>
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<tr>
<td></td>
<td>PhD candidate Arghavan Hadinejad (Department of Tourism, Sport</td>
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<tr>
<td></td>
<td>and Hotel Management) Griffith University</td>
</tr>
</tbody>
</table>

Email: noel.scott@griffith.edu.au
b.moyle@griffith.edu.au
a.kralj@griffith.edu.au
arghavan.hadinejad@griffithuni.edu.au

You are invited to participate in a pilot study. The research will take place in a laboratory.

The total procedure will take about 10 minutes. This research will require you to view a computer screen for two minutes while viewing tourism-related images in an advertising stimulus and then answer self-report questionnaires. Please note that while you are watching the tourism advertising, your facial expressions will be captured by FaceReader.

FaceReader is a leading professional software for automatic analysis of facial expressions. It can detect emotional expressions in the face. A webcam captures facial expressions and data is imported into the software for analysis. Data analysis shows six basic emotions: happy, sad, angry, surprised, scared, and disgusted and a neutral state. FaceReader can also indicate the amount of emotion as well as the valence of emotions (positive or negative).

You will not be identified in the experiment. No personal information will be collected. Your responses will be recorded, and the data will be analysed by the research team.
This study abides by the guidelines of the ethical review process of Griffith University. You are welcome to discuss your participation in this study with the researchers listed above. If you would like to speak to an officer of the University not involved in the study, you may contact the Manager, Research Ethics to 3735 4375 or research-ethics@griffith.edu.au.

To register your interest please email arghavan.hadinejad@griffithuni.edu.au
Appendix H: Recruitment form and questionnaire for the main study

Effect of Emotion on Attitude: A Self-Validation Analysis in Tourism

Ethics Ref No: 2017/488

My name is Arghavan Hadinejad from Griffith University, Australia. I am a PhD candidate, supervised by Professor Noel Scott, Dr Anna Kralj, and Associate Professor Brent Moyle. I would like to thank you in advance for your time and assistance. Your participation is important to the success of this research. The survey should not take more than 10 minutes to complete. This research attempts to provide a more comprehensive understanding of the effect of emotion on potential tourists' attitude. I would like to seek your assistance in testing this survey that will be used in my PhD project. This research will require you to view a computer screen to watch a tourism advertisement and then answer the survey. You will not be identified in the experiment. No personal information will be collected. Your responses will be recorded and the data will be analysed by the research team. If you need any further information about the research, please click on the information sheet below or contact Ms Arghavan Hadinejad by emailing arghavan.hadinejad@griffithuni.edu.au

Completion of this survey will be taken as your consent to participate in the research.

Survey information sheet click for download if interested

Please click on Next to start the survey.

1. Can you please provide the following information?

Gender

- Male
- Female
- Other/ I don't want to respond

2. Age
Under 18
18-27
28-37
38-47
48-57
58+
Other/ I don't want to respond

3. Are you Australian by birth? If not, have you lived in Australia for at least 18 years?

Yes
No

4. Which state do you live in?

ACT
NSW
NT
QLD
SA
TAS
VIC
WA

5. Education

Primary Education
Secondary Education
Vocational (e.g. certificate/diploma)
University undergraduate
Please watch this short video carefully. Then, answer the questions listed below the video and press Next.

This video is made by A Solo Female Traveller who Visited Iran in 2017.

MAKE SURE THAT SOUND IS ON.

6. What type of music did you hear in the background of the video?
   - Modern music
   - Traditional music
   - No music

7. Please type your thoughts (word phrases/sentences) about Iran based on this video (Maximum 10). Please don’t worry about grammar or spelling.

Thought1

Thought2

Thought3

Thought4

Thought5

Thought6

Thought7

Thought8

Thought9
8. Please answer the following.

<table>
<thead>
<tr>
<th>Overall, how much &quot;confidence&quot; do you have in the thoughts you listed (about Iran based on the video)?</th>
<th>A great deal</th>
<th>A lot</th>
<th>A moderate amount</th>
<th>A little</th>
<th>None at all</th>
</tr>
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<tbody>
<tr>
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<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<table>
<thead>
<tr>
<th>Overall, how &quot;valid&quot; would you say your thoughts are?</th>
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<td>O</td>
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<tr>
<th>How &quot;certain&quot; are you that the thoughts you had while watching the video were &quot;correct&quot;?</th>
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<table>
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<tr>
<th>How certain are you that other people will have similar thoughts about Iran based on this video?</th>
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</table>

9. I think a trip to Iran would be...

<table>
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<tr>
<th>Favourable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Unfavourable</th>
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<tbody>
<tr>
<td>Positive</td>
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<td>Negative</td>
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<td>Good</td>
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<td>Bad</td>
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<td>Interesting</td>
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<td>Boring</td>
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<td>Attribute</td>
<td>Attractive</td>
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<tr>
<td>Pleasant</td>
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<td>Desirable</td>
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<tr>
<td>Useful</td>
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10. Do you have any other comments about travelling to Iran?