Impacts of host city image in the country destination branding in sport mega-event context: exploring cognitive and affective image dimensions

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Impacts of host city image in the country destination branding in sport mega-event context: exploring cognitive and affective image dimensions

Purpose: This paper aims to verify the brand image effects of holding a sport mega-event by investigating the host city's influence on the country's branding, as a tourist destination.

Design/ methodology/approach: This research considered the Rio 2016 Olympic Games and uses quantitative methods: exploratory factor analysis and regression. Data were collected by structured questionnaires with a sample of (n=274) international respondents with high international travel experience.

Findings: Rio de Janeiro's 2016 host city image positively predicted Brazil's tourist destination image. Both cognitive and affective image dimensions of Rio as a host city predicted Brazil's destination image, but the cognitive image dimensions demonstrated more impact.

Originality: The study contributes by focusing on presenting the importance of the host city image dimensions to the host country destination image in a sports mega-event context. The study investigated a new approach, the impacts of affective and cognitive dimensions in the overall destination image considering two connected destinations and the hosting of a sport mega-event, a condition not found in the literature thus far.

Practical implications: Even in a mega-event context, city marketing strategies should be planned and executed with a focus on the country's destination image.

Keywords: Rio 2016 Olympic Games; sport mega-event host city; customer- based brand equity; country destination branding; tourist destination image. Brazil.

1 Introduction

Although the concepts of brand mostly focuses on emphasizing products and / or services, it can also be extended to places (Anholt, 2010; Kotler and Gertner, 2004; Papadopoulos and Heslop, 2002). If a country wants to improve its international image, it must concentrate on national standards equivalent to the development of a product or

service (Anholt, 2010). This field of study is called place branding, which is a complex due to inclusion of multiple stakholders and has been extensively discussed in destination image studies (Demirbag Kaplan *et al*., 2010).

This research focus on destination image, that in a brand perception, symbolises the set of associations or impressions attached to the tourist destination (Herrero *et al.*, 2017). Based on Hunt (1971, 1975), Tourist destination image(TDI) emerged in parallel with studies on country image(COI) - Nagashima (1970), both in the 1970s. Both TDI and COI use the application of attitude theory to explain the influence of image, beliefs on evaluations and behavior (Nadeau et al., 2008).

Although a country can be also a tourist destination, country and destination image are different concepts. The image of the country is considered a broad construct consisting of generalized images, created not only by representative products, but also by the degree of economic and political maturity, historical events and relationships, culture and traditions, degree of technology and industrialization (Roth and Diamantopoulos, 2009). On the other side, tourist destination image is not so much about general attributes of the country, being more focused on attributes related to tourism.

It is important to know that image is a relevant element for Customer-Based Brand Equity (CBBE), which is the differential effect of brand knowledge (brand image and brand awareness) on customer response (Keller, 1993). From a destination perspective, there are few works testing CBBE (Pike and Bianchi, 2013). CBBE studies allows to check the consumer's point of view about the brand. Four dimensions of CBBE are well established in the literature, awareness, image, quality and loyalty (Aaker, 1991). In this paper the authors investigated image, one of the CBBE dimensions. This dimension was chosen based on its relevance to the tourist's visit

decision making (Baloglu and McCleary, 1999; Pike and Ryan, 2004; Lee *et al.*, 2005, Chang *et al.*, 2015) and consequently to destination brand image management.

The research was conducted considering a context of a sport mega-event because this prospect bring a different perspective, one that can potentially generate long-term image perspectives and economic impacts for the host communities (Ferreira *et al.*, 2018), especially intangible legacies (Girginov and Preuss, 2021). Sport mega-events, like the Olympics, can play a significant role in determining the sort of leisure spaces in the host city before, during and after the events happens. (McGillivray *et al.*, 2019)

This type of event is specifically targeted to increase tourism activity in the host city/ country and enhance the image of the place as a tourist destination (e. g. Ulvnes and Solberg, 2016; Singh and Zhou, 2016; Knott *et al.*, 2015; Nadeau *et al.*, 2008). As a result, those events have been the focus of investigation in many research studies (e.g. Swart *et al.*, 2017; Ferrari and Guala, 2017; Balsas, 2017; Wener *et al.*, 2016; Tasci *et al.*, 2016; Singh and Zhou, 2016; Kaplanidou *et al.*, 2016; Caiazza and Audrescht, 2015, Ferreira and Giraldi, 2020; Ferreira *et al.*, 2021).

Some articles deal with the relationship between the event image and tourist destination image (Walker *et al.*, 2013), including the transfer of images in these cases (Deng and Li, 2013). In this situation, the host city is super exposed because of the mega-event. This exposure can reflect not only in the city image, but in the country destination image deliverables. Therefore, it is possible that the gains or losses with the event can overflow to the city to nation image, considering a touristic destination perception. The influences of event image in those places have been investigated, but the relations between the two places, as the influence of the host city in the nation image is a new approach. This was partially investigated in Ferreira et al. (2021), it was

observed that there is a greater influence of the host city in the country than the opposite, which strengthens the thesis of the impact of the event itself, but also of the host city.

However, the questions here is: how the host city image components, cognitive and affective, seen separately, can predict the host country image destination? As a result, the objective of this study focuses on examining how image dimensions of the host city impact the nation image, as a tourist destination, considering the 2016 Rio Olympic Games, Brazil.

The Olympic Games was chosen since it is the biggest sport mega-event in the world and it happens in just one city, so the effects can be more concentrated. The contribution of this study is to detail the image impacts by observing how each dimension of the city image influences the whole country destination image. Knowing the details about the dimensions that most impact this relationship brings theoretical and practical contributions. Identify dimensions of better performance for managers to work on the image of destinations that host sport mega-events is important. Especially in cases like Brazil, as it is a developing country with controversial image (Valduga *et al.*, 2019; Giraldi *et al*, 2011; Hahm and Tasci, 2019; Mariutti *et al.*, 2019).

2 Destination Customer-Based Brand Equity

The strategic marketing of places aims to promote a place as a product and a brand (Kotler and Gertner, 2004), what works for tourist destinations too. Destination brand aims to communicate the unique identity of the brand, differentiating it from its competitors (Morrison and Anderson, 2002). However, a destination can be a country, a

region, a state, a city or simply a tourist attraction (Mossberg and Klepp, 2005).

Destination brand basically performs two important functions: identification and differentiation (Qu *et al.*, 2012). It involves a set of actions that serve to create an image, that positively influences the consumer in their choice (Gartner and Ruzzier, 2011). It encompasses a set of marketing activities that support the creation of a name, symbol, logo, word mark or other graphic that is easily identified and differentiates the destination, which conveys an expectation of an unforgettable travel experience, serving to consolidate and reinforce the emotional link between visitor and destination and reduce costs of consumer research and risk perception (Gartner and Ruzzier, 2011). Figure 1 shows Brazil logo at the time and Rio 2016 Olympics logo.

[Insert figure 1]

There are significant and critical differences between product brands and destination brands (Gartner and Ruzzier, 2011). Predictability is one of them, which stems from product stability, meaning that the product will deliver the expected performance no matter where it is purchased. However, the same cannot be said for the brands / target products. Destinations are places and places change constantly. In this way, seasonality is one of the characteristics of destinations that can be a problem, for example, in climate dependent destinations. Mega-events are one of the aspects that also have this ability to influence changes in perceptions about tourist destination, especially for emerging countries (Knott *et al.*, 2017), like Brazil.

The results of Gartner and Ruzzier (2011) study, which investigated the concept of customer-driven tourism destination brand equity, indicated that image dimension and quality play the most important role in evaluating a destination, regardless of

whether tourists are first-time visitors or repeaters, which reinforces the importance of the image as a central destination feature.

Considering a sport mega-event context, almost all the studies related to brand equity field of study are concentrated on the image. Destination image, sport mega-event image and tourist satisfaction, behavioural intentions or attitudes are examples of topics investigated in works on sport mega-events field (Ladhari and Souiden, 2020; Kenyon and Bodet, 2018; Kim *et al*, 2019).

The image remains a central concept for the construction of the destination brand, although it is not the only concept to be considered, the image is at the heart of the destination brand (Cai, 2002). If a destination image can impact in the other, it is important to better understand the details and how is the impact of each image dimension.

3 Tourist Destination image: Cognitive and Affective dimensions

To better understand the image structure, it is important to undertake the decomposition of tourist destination image in parts: cognitive and affective (Baloglu and Love, 2005). Cognitive images are the beliefs based on personal views about the attributes (Neal *et al.*, 1999). Cognitive dimension of tourism destination image as a mental response that involves not only beliefs/knowledge, but also memories, evaluations, interpretations and decisions (Tasci *et al.*, 2007). Therefore, the perceptual/cognitive evaluation of attributes (beliefs) is formed by external factors, which include different information sources, symbolic stimuli, such as promotional efforts and social stimuli - friends' and relatives' recommendations/ word-of-mouth (Um and Crompton, 1990).

The image cognitive dimension, or just cognitive image, is related to individual perceptions about the tourist destination attributes (Baloglu and McCleary, 1999).

Echtner and Ritchie (1991) developed a scale that includes more functional items like tourist sites and activities, scenery/natural attractions, nightlife and entertainment etc.; psychological items like hospitality/friendliness/receptiveness, atmosphere, and mixed items such as crowdedness, cleanliness, degree of urbanization, accessibility and personal safety. Baloglu and Mangaloglu (2001) also highlight similar aspects, like personal safety, appealing local food, interesting cultural attractions, good nightlife and entertainment, hygiene and cleanliness, etc.

Cognitive image dimension has been examined in several studies. Most image researchers focused more on cognitive aspects than the affective, especially in the beginning of destination image studies (Hanyu, 1993). The literature indicates that the cognitive component influences the affective image and both influences the overall image (Nghiêm-Phú, 2014, Baloglu and McCleary, 1999; Beerli and Martin 2004; Hernández-Mongollón *et al.*, 2017).

In the study of Huh *et al.* (2006) about cultural destination, the results show that cognitive and affective aspects can significantly affect overall destination image, although cognitive factors have a better impact. However, can this relation be different if there is a sport mega-event happening in the destination? That is why a sport mega-event context was chosen.

Florek and Insch (2011) highlighted the importance of a destination's cognitive components in strengthening a prestigious event's positive symbolic dimension and that a destination can create a 'halo construct' (Han, 1989), where a destination image is used to evaluate products – in this case, an event – about which people know little. However, in the case of the Olympics, it is a very famous event, so the perception of a famous event can be assimilated to the destination (Xing and Chalip, 2006).

Fresh studies have applied a bidimensional model to describe destination image, including both cognitive and affective components such as Baloglu and McCleary (1999), Echtner and Ritchie (1991), Tasci *et al.* (2007). However, the affective dimension is understudied in cases of projected destination image as Nghiêm-Phú (2014) found in their literature review research.

Nevertheless, there are more studies on cognitive aspects than affective ones, which suggests that there is still little known the influences of the affective component (Gallarza *et al.*, 2002; Pike and Page 2014), destination's affective image appears to be slightly more influential on tourists' behavioral intentions than a destination's cognitive image (Iordanova, 2017). Especially in the case of increasing visitors' composite loyalty, destination marketers should not neglect visitors' feelings; attachment and attitude towards the destination (Iordanova, 2017).

The literature indicates that motivations have a direct effect over affective image components (Beerli and Martin, 2004; Gartner, 1993; Walmsley and Jenkins, 1993; San Martin and Rodríguez del Bosque, 2008). As an example, studying an amateur bicycling event Kaplanidou and Vogt (2007) found that the cyclists' affective image of the event effectively predicted their cognitive and affective image of the hosting destination. To study the affective aspects, the literature of destination image (Baloglu and Mangaloglu, 2001; Pan *et al.*, 2014; Kaplanidou and Vogt, 2007; Moon *et al.*, 2011; Qu *et al.*, 2011) has used Russell and Pratt (1980) semantic scale for affective measurements.

Regarding mega-events, the literature demonstrates that the influence of event image on destination image pertains to a complex phenomenon, with diverse manifestations in different context (Lai, 2016). However, in this case, affective image dimensions are overtly emphasized. Ladhari and Souiden (2020) find the relevance of

introducing the affective component in the management of mega-sports events. Furthermore, Lai (2016), in his literature review, suggests that the affective destination image appears in 10/16 studies, and six studies examined only affective event image and destination image, which shows that in the case of realization of mega-events the affective dimensions seems to be very relevant. Thus, despite the importance of the cognitive dimension as predecessor of affective and overall destination image (Gartner, 1993; Ryan and Cave 2005; Vogt and Andereck 2003), does not mean diminishing the role of dimension. On the other hand, affection seems to be very important in the tourist decision make, so considering the host city image, maybe that dimension can have more influence in the overall country destination image.

4 Hypotheses

Holding a sport mega-event can bring impacts for the host city/country images (Balsas, 2017; Sing Zhou 2016; Kaplanidou and Vogt, 2007; Hahm *et al.,* 2019) especially in the context of transferability of the event image to the host place image. Many research studies are based on the transference of the event image to the host city image or the event image to the host country. An example of effects in the host city is exposed in the study of Caiazza and Minis (2012) in Naples - Italy, the event drew international media attention to the city, it was an important step towards re-launching the image of Naples in the marketplace, and reinforced trust in the leaders of the city and government.

Lai (2016) found a positive correlation between destination image and event image in Beijing Olympic Games. In addition, Singh and Zhou (2016) explore the impacts of hosting the Olympic Games on the transformation of the host city (Beijing) with industry professionals and Beijing residents. They find that the Beijing's tourism suppliers (tourism department, government organizations, hotels and restaurants)

changed their marketing strategies because of the impacts of the Olympics and that Beijing has shifted to promoting a new destination image, more fashionable and with more vitality.

Rocha and Fink (2017) analysed the effects in the host country destination. However, the interaction between the hospitality associated with the hospitality of the Olympic Games and that of Brazil positively affected the attitudes towards the visit to the country after the Games, they found that there was no consensus among the groups researched that the image of the Olympic Games improved the brand image of Brazil as a tourism destination. Participants of three focus groups indicated that Brazil might not need this association to promote itself as a tourism destination. Corroborating with Rocha and Fink (2017) perceptions of Brazil before after the 2016 Summer Olympics revealed some differences in the country image but no significant changes in destination image (Tasci *et al.*, 2019).

The Olympic Games is a sport mega-event that is hosted in a specific city, and the relations between the event image and the host city image have been investigated, however the relations between the host city image and the whole country image (as a tourist destination) have remained a topic for more research only investigated for (Ferreira *et al*., 2021), that found more influence in the direction of host city to national destination image than the opposite.

Both Brazil and Rio de Janeiro (as the host city of 2016 Olympic Games) are tourist destinations that have images with cognitive and affective dimensions, based on Baloglu and McCleary's (1999) model. The context of the place image shows that beliefs about the country and the people of the country have a direct influence on the beliefs and evaluations of destination (Nadeau *et al.*, 2008). Country stereotypes also influence the process of image formation, such as the performance of national sports

teams, political events, portrayals of the country in film productions, television or other media, the quality of the product country's brands and the people behaviour associated with the country as well (Dinnie, 2008). An example of that is the studies of Herrero et al. (2017) that found influence of country destination (Spain) image on the perceived image of its regional destinations (Cantabria).

However, Rio de Janeiro has been associated with both positive and negative connotations (Anholt, 2007). Rezend-Parker *et al*. (2003) found that most non-visitors agree that people visit Brazil because of the Carnival in Rio. Pérez-Nebra and Torres (2010) emphasized that the most popular Brazil tourist attractions are located in Rio de Janeiro. Added to that, the context of hosting the Olympics put Rio in a biggest media explosion. Considering that context, the city impacts of hosting the event can overflow for the nation branding, especially for the image. Rio's overall city image as a host of Olympics had influenced on Brazil's overall image as a tourist destination (Ferreira, *et al,* 2021), so the Rio image dimensions can affect Brazil's overall destination image. Thus, the first hypothesis is:

Hypothesis 1. The Rio de Janeiro 2016 host city image dimensions positively predict Brazil's tourist destination overall image.

Hypothesis 1a. The factors that make up Rio de Janeiro 2016 Olympics host city image are similar to those that make up the image of Brazil as a tourist destination

There are some studies about Brazil's destination image like Leal (2004); Pérez-Nebra and Torres (2010); Rezend-Parker et al. (2003); Mariutti *et al.* (2013), Mariutti *et al.* (2013), Valduga *et al.* (2019), Tasci and Hahm (2019), Maiello and Pasquinelli (2015) Ferreira *et al*. (2021), Swart *et al.* (2017) , Rocha and Fink (2017), some of then include port mega-event context. Considering a mega-event context, most

of the studies found to construct the theoretical references focused on aspects about visiting or revisiting the place and the effects of the event in the host city or in the host country in a separated way.

Maiello and Pasquinelli (2015) did a qualitative research based on internet content analysis that describes the representation of Rio de Janeiro preparatory stages for the sport mega-events. The study suggested a (re)construction of a global narrative of 'the city hosting mega-events', enriched by local meanings and symbols. Swart et al. (2017) studied information search, crime risk, destination image and satisfaction with the intention of revisiting Rio de Janeiro with tourists who participated in the 2014 World Cup. The study of Rocha and Fink (2017) described the impacts of the interaction between the Olympics and Brazilian brand images (as a tourist destination) and the attitudes to participate in the Rio 2016 Olympic Games and to visit the country after the event. The results showed that the interaction between the hospitality of Brazil associated with the Olympic Games hospitality, positively affected attitudes toward visiting the country after the Games.

As a result, it is still a gap to know how the host city image dimensions can predict the image of the nation. The literature indicates that cognitive and affective dimensions predict the overall image considering the one place (Nghiêm-Phú, 2014, Baloglu and McCleary, 1999; Beerli and Martin 2004) but not in th relation of two geographical connected places, like Rio and Brazil. Valduga *et al.* (2019), for example investigated Rio and Brazil image, but separately. As the overall image is composed by cognitive and affective dimension (Baloglu and McClear, 1999); and considering that host city overall image can overflow for the overall nation image like in Ferreira et al (2020), we supposed that the cognitive and affective dimensions of the city could also predict the overall image of the nation as tourist destination:

Hypothesis 2: Rio's cognitive image dimension as the host city of 2016 Olympic Games predicts Brazil overall image as a tourist destination.

Hypothesis 3: Rio's affective image dimension as the host city of 2016 Olympic Games predicts Brazil's overall image as a tourist destination.

All hypotheses are showed in figure 2.

[Insert figure 2]

5 Method

5.1 Survey instrument

In order to test the hypotheses of the study, a survey methodology was used with a structured questionnaire using a seven-point Likert scale (1= totally disagree to 7=totally agree). To profile the sample, the questionnaire contained questions about: demography (age, income, sex, schooling, and ethnicity), travel experience, familiarity with the destination and the interesting in the Olympic Games.

To measure the cognitive image dimension of Rio, the questionnaire was based on the scale of Baloglu and McCleary (1999) with eleven items and one question about the overall image. To the affective dimension, a semantic differential scale based on Russell and Pratt (1980) was performed.

The explanation that preceded the questions asked the respondents to evaluate Rio de Janeiro as a host city of 2016 Olympic Games, not as a common tourist destination. Brazil overall image as tourist destination was also evaluate. The perception about Brazil's and Rio overall image was evaluated through a seven-point scale (Extremely negative – Extremely positive).

5.2 Sample and data collection

Data collection was made online and face to face. It was carried out from April to June 2017, between seven months to one year after the Olympics to evaluate impressions after the games. It was decided to collect data after the games due to the literature indicating the need for more ex post studies (Ferreira et al., 2018). *Ex post* studies vary widely in the choice of time to collect the period after the event. From a month after the event like Hanm *et al.* (2018) until months and years later like Ladhari and Souiden (2020) - 7 months after the Olympic Games event; Tasci *et al.* (2019) - 13 months and Hahm *et al.* (2019) - 12 months; Singh and Zhou (2016) five years later. This variance is important to assess how long the impacts of the event can be identified.

The study used a convenience non-probabilistic sample of 274 university foreign students in a United States University. Sample composed by students is common on image studies, like Leal (2004), Gibson et al. (2008); Nghiêm-Phú (2014); Martinez and Alvarez (2010); Um and Crompton (1990); Tasci *et al.* (2019) as non-probablístic sample like in Um and Crompton (1990) and Nghiêm-Phú (2014).

The online respondents were 108 and the face-to-face respondents were 173. Initially, the collection was done online and then face-to-face to reach the desired number of respondents. The Qualtrics platform was used to create and send the questionnaires through the university's email list. The SPSS 23 software was used to do the statistics. At the time of analysis, adjustments were made to avoid bias as the questionnaires were collected in different ways. To deal with the missing data, the function list wise of the software was used. As this was research had involved humans, the institution ethics committee had to authorized the research.

5.3 Analysis

To explore the dimensionality of destination image concept, exploratory factor analysis

was employed in the software SPSS 23 to detect the underlying factor structure of cognitive and affective destination image

The intention was to analyse, separately, the two dimensions that make up the overall image formation (cognitive and affective), per the Iordanova (2017) and Lai (2016) analysis. That makes it possible to relate the mains factors of each Rio image dimension with Brazil's overall image.

To identify and drop the outliers the Mahalanobis test was employed and a histogram graphic test was used to observe the normality. Considering that an online and face-to-face data collection was carried out, and in order to verify if there would be any difference in the responses due to the different means of data collection, first a comparison of means between the two groups was made. It was observed that the groups presented a certain difference. The "face to face" group of respondents appeared to be more benevolent in some aspects of the research than the "online" group of respondents. Once this was verified, it was decided to carry out separate factor analyses between the groups to then join the samples.

Through the technique principal components analysis and orthogonal rotation Varimax, factor analysis rounds were performed for: (1) Rio de Janeiro's cognitive dimension; (2) Rio de Janeiro's affective dimension; (3) Brazil cognitive dimension and; (4) Brazil affective Dimension and then compared the resulting factors and variables.

In addition to the factor analyses, three regressions analysis models were performed to test if Rio de Janeiro 2016 Olympics host city image dimensions and its overall image predicted Brazil's destination image. Considering Hair *et al.* (2009), some assumption tests were made, before and during the regressions. Multicollinearity, auto-correlation, and homoscedasticity were also checked.

6 Results

6.1 Sample characteristics

The largest percentage of the respondents (52.1%) fell between the ages of 17 and 25 and (29.7%) between 26-35 years. Sample characteristics consisted of 59% females and 41% males; The education level was high, with (35.8%) "Post Graduate", (30.3%) with "University level", and (24,8%) have "Some college". The annual household income was (29.7%) less than $20,0000; (19.3%) earn $20,000-$39,999; (18.9%) earn $100,000 or more. The predominant ethnicity as white (48.7%), followed by Asian (23.2%), Hispanic (14.2%) and Black (10.1%). About the country of birth, the predominant was USA (56,8%), the second one was China (7,1 %), the others respondents(36,1%) were from a range of countries from all continents.

Regarding of travel experience, the majority of the sample travelled internationally outside their countries (86.9%). Most of them (66.3%) travelled up to 5 times outside of their country. Regarding participation in the 2016 Olympic Games, (99.3%) of the sample did not participate in the Games. However, for the purpose of this article, it was not necessary that the respondent had participated in the event since the image can be formed by primary or secondary sources (Phelps, 1986). Thus, image formation of the interviewees Rio de Janeiro as the host city of the Olympics of 2016 occurred through secondary sources, since there was no visitation by the majority, like the study of Tasci *et al.* (2019) who investigated the image also considering secondary fonts and respondents who did not participate in the Olympics.

However, the respondents had some familiarity with Brazil: (9.1%) had already visited the country, (49.6%) had friends or relatives from Brazil and all the interviewees had contact with the country through some kind of media: newspaper (47.4%), direct mail (1.8); movies and television (68.6%), social media (63.9%), official tourism

website (7.3%), radio ad (0.7%) and commercial TV (24.1%). Finally, about the interesting in the Olympic Games, 79.6% agreed that they had a lot of interesting in the Olympic Games.

6.2 Data analysis

The exploratory factor analysis (EFA) was performed to find the main variables of each image dimension for both Brazil and Rio. In Brazil Cognitive Dimension, two factors were extracted, namely: (1) "Brazil Services and Attractions" and (2) "Brazil General Infrastructure". The nomenclature of the factors extracted was chosen considering the nature of the items such as in Ferreira and Giraldi (2020). The main factor was composed of 6 items that are indicated by the literature as part of tourism services and attractions (Baloglu and Mangaloglu, 2001; Etchner and Ritchie, 1991). Factor 2 contemplated the infrastructure, represented by items that are not directly related to tourism, but which are essential to its development , like "safe", "values hygiene and cleanliness" and "good infrastructure" .

For Rio, as well as for Brazil, two factors were identified. The factors received the same name because they were very similar to Brazil's factors. The first one that have greater power of explanation (Eigenvalue = 4,768) had also six items and the second factor three items: Factor 1 - "Rio Services and Attractions"; Factor 2 - "Rio General Infrastructure". The KMO test was .853 and significant ($p<0.05$). Table I summarizes the cognitive dimension factors for both places.

[Insert Table I]

For Brazil image affective dimension, two factors were extracted, one with five items and another with three items. The first factor was called "Brazil Positive Feelings" because it involved all good feelings about the destination. Factor 2, that included bad

feelings, was entitled “Brazil Negative Feelings”. The EFA was significant ($p<0.05$) and the KMO test was .834 (Table II). As showed in Table II, for Rio affective image dimension, two factors were extracted as well, that together accounted for 76,665% of the variance. After the reduction, six variables remained, the variables “terrified” and “relaxing” were dropped out. The factors were called: Factor 1 – "Positive feelings" with 4 items; Factor 2 – Negative feelings with 2 items. The Kaiser-Meyer-Olkin (KMO) test had a value of .785, indicating that factorial analysis was appropriate and significant (<.05).

[Insert Table II]

Tests of homoscedasticity and the normality of error distribution of the model variables did not reveal any violations, so after the EFA, to test the hypotheses, a multiple regression model was done with “Brazil tourist destination overall image” as the dependent variable and the factors found in Rio Image dimensions: Cognitive (“Rio Services and Attractions”, “Rio Infrastructure”); and Affective (“Rio Positive Feelings”, “Rio Negative Feelings”) as independent variables. Tests of multicollinearity revealed no concerns, as variance inflation factor values were less than 10 and tolerance >0.1. The p-value was set to $p <.01$ to detect statistical significance. The regression was done to see the influence of Rio’s image dimensions on Brazil overall image (Table III and IV).

[Insert Table III]

[Insert Table IV]

The regression showed that “Rio Services and Attractions” (ß=.220, $p < .05$); “Rio Infrastructure” (ß=.236, $p < .05$) and “Rio Positive Feelings” (ß=.240, $p < .05$)

significantly predict Brazil tourist destination overall image. However, the factor “Rio Negative Feelings” was not significant (ß=-.076, p = .140). The indicators did not show any signs of multicollinearity as the tolerance indicator range was from .392 to .950 and the VIF indicators were from 1.05 to 2.5, which are acceptable and beyond any suggested cut-off levels (Hair *et al.*, 2009). The R^2 adjusted square indicates the degree of explanation of the model. In other words, considering this regression, the image of Brazil as a tourist destination is 37.6% explained by Rio Services and Attractions, Rio Infrastructure and Rio Positive Feelings, since the Negative Feelings did not reach significance (Table III and IV). That result could be considered a good value, once other tourist image studies have presented degrees of explanation with similar levels like Lai (2016), Tasci et al. (2016) or with lower levels like Chang et al. (2015), and in the Social Sciences area, R^2 = 2% shows a small effect, R^2 = 13% a mean effect and R^2 = 26% a large effect (Cohen,1988).

7 Discussion

Considering the regression results, Hypothesis 1 “The Rio de Janeiro 2016 host city image dimensions positively predict Brazil's tourist destination image”, was partially supported, once the regression showed that “Rio Services and Attractions” (ß=.220, p < .05); “Rio Infrastructure” (ß=.236, p < .05) and “Rio Positive Feelings” (ß=.240, p < .05) significantly predict Brazil tourist destination overall image. Nevertheless, the factor “Rio Negative Feelings” that is part of the Rio Affective dimension was not significant (ß=-.076, p = .140) to predict Brazils overall image.

Looking more closely at the items that make up each factor from Rio and Brazil image dimensions, some variables that remained in the dimensions of Brazil did not remained in the Rio dimensions and vice versa. The item "Adequate

accommodation", for example, only remained in the factor "Brazil Services and Attractions", but it did not remain in the correspondent factor of Rio. The same occurred with the item "Good climate", that continued in Rio's factor but not in Brazil's factor. These items were dropped in the EFA because they had low factor loads. Also, Brazil had one more item than Rio: "relaxing" in the "Brazil Positive feelings" Factor and "Terrifying" in the "Brazil Negative Feelings" Factor. These variables were dropped from Rio EFA considering that they had low factor loads. Even so, we can say that the images of Rio and Brazil were similar both in the number of factors, in the importance of each factor and in the variables that compose them. So, the Hypothesis 1a was also supported.

The Hypothesis 2, "Rio's cognitive image dimension as the host city of 2016 Olympic Games predicts Brazil's overall image as a tourist destination" was supported as well and even the factors that make up the cognitive dimension were stronger than the affective, and only one factor of affective dimension was significant to predict Brazil's image. That comes in order to meet the majority of the destination image literature like Huh *et al.* (2006) that highlight that the cognitive aspect seems to have more weight in the composition of the overall image. However, the originality of the results in this study is that it is about two different destinations (Rio and Brazil). The cognitive aspect of one destination is predicting another one overall image. In this case, it is not just about the strength of the cognitive dimension in the image of one place, the cognitive dimension was stronger than the affective dimension in the composition of the image and in the influence of one destination on another. However, it was the opposite to sport mega-event literature where affective dimension appears to be more emphasized (Lai, 2016).

Finally, Hypothesis , "Rio's affective image dimension as the host city of 2016 Olympic Games predicts Brazil's overall image as a tourist destination", was partially supported, once, only the factor "Rio's Positive feelings" predicted Brazil's image, "Rio's Negative Feelings" was not significant.

This result contribute to Ladhari and Souiden (2020), showing the importance of both cognitive and affective dimension and the necessity of marketers to emphasize these components on the sport mega-event experience and host city experience, once can predict the nation image.

In the case of Brazil, it is important to emphasize its proposition as an emerging country in order to better understand the meaning of the results, especially as Brazil has a controversial image in other studies (Valduga *et al.*, 2019; Giraldi, Giraldi and Scaduto, 2011; Hahm and Tasci, 2019; Mariutti *et al.*, 2019). Being a developing country, it is characterized by many unmet social demands. Also, may have a conflict between the priority demands of the vast majority of the population, which historically suffers from the precariousness of their living conditions and the demands of investments for a sports mega-event, as was the case in the Olympics. Therefore, considering some contradictions about the country it makes sense that the results show that the affective image is represented by positive and negative feelings. In the same way, the infrastructure factor was not so well rated, what is a huge problem in some emerging countries.

Beerli and Martín (2004) argue that the image management process is not an easy task since the image of a place is usually anchored in long-lasting stereotypes, clichés, history and traditions, and as such is not easily malleable. In this sense, despite the social contradictions that the nation can present, the main factor related to its affective image were positive feelings: pleasant, friendly, exciting and reliable. In

addition, in the regression results, Rio's negative feelings were not a factor that predicted Brazil's overall image. While Rio Positive feelings, Rio Infrastructure and Rio Services and Attractions positively influenced Brazil's overall image.

This is an important point because it means that the negative feelings identified in Rio de Janeiro's image (hectic and stressful) as a sport mega-event host city did not predict Brazil's image. On the other side, services and attractions are more related to tourist activity and had the bigger effect in Brazil's overall image. This result was also found in Ferreira and Giraldi (2020) with Rio Image.

The items that best explained the services and attractions factor were "Historical and cultural attractions" and "Beautiful scenery and natural attractions". Ladhari and Souiden (2020) also found in their study that the most important aspects on Rio Image as a host city was form by culture and natural dimensions.

These results are significant considering that Rio a destination which is part of the nation, what is not very common to be studied, in general, investigated the impact of the nation on minor destiny that compose it. Additionally, Rio is a very important destination for Brazil (Ferreira and Giraldi, 2020; Swart *et al.,* 2017; Valduga *et al.*, 2019; Maiello and Pasquinelli, 2015; Mariutti *et al,* 2013).

So the perception about the cognitive aspects (that are more tangible aspects) of Rio's image as host city overflow to Brazil, especially for the natural and cultural aspects. That is in line with the findings of Ladhari and Souiden (2020) that concluded that the natural environment is more positively perceived by tourists than items like "safety" and "value" for cities/countries, such as Rio/Brazil, where nature is abundant and attractive. Besides because Rio have some safe issues. (Swart *et al.*, 2017). In this sense, mega-sport managers and destination marketers have to maximize the intangible

impacts of sport mega-event as the influence on place image, considering both cognitive and affective dimensions.

8 Conclusion and implications

The main objective of this study was to understand the influence of Rio de Janeiro's image as the host city of the Olympics in 2016 in Brazil overall image, as a tourist destination, through the analysis of its cognitive and affective dimensions. The results allowed verifying the most important factors and variables in Rio's image dimensions in a sport mega-event context comparing to Brazil's image; and how the dimensions of Rio's image predicted Brazil's destination overall image.

This research brought new contribution, when compared to other studies on sport mega-events because of the combination of the aspects investigated that were not explored together in that literature before, especially the dimensions of host city compared and related to the host country. Specifically, in the tourism destination's image area, the study highlighted image interrelations between places that are connected (city and nation), because one is part of the other, a strategy not found in the literature prior, especially considering the impacts of the image dimensions in a sport mega-event context. Therefore, the contribution was knowledge on a destination's image and sport mega-event studies.

In the destination's literature, the approach of this paper was important once the focus was the image dimensions: cognitive and affective, and many studies do not approach each dimension separated especially the affective. This study showed how two destination images, that of a host Olympic city and that of a host country complement each other.

Also, the organization of cognitive image attributes in two large groups as pointed out the result of the factorial analysis can be beneficial for public and private policy purposes that reflect on the image improvement of the destination. Once it was found two major groups to work on: general infrastructure; services, and attractions, which include important variables related to public investment such as "security", as well as private like "historical and cultural attractions", "attractive cuisine", "accommodation" etc.

The study showed, as well, that the cognitive and affective dimension image of one city (Rio) can influence the overall image of the nation (Brazil), especially the cognitive dimension. The findings of this research suggest that the positive feelings of affective dimension are more important than the negative feelings of the host city studied. Destination marketers can invest in cognitive aspects to improve the image but also in affective ones. This should be done by a marketing that focus on the positive feelings about the destination image. Since positive feelings are an important part of the overall image found, and the image is a relevant aspect for the tourist decision making to visit a place, these feelings like pleasant, friendly, exciting, reliable, along with the cognitive aspects, historical and cultural attractions, scenery and natural attractions, could be an aspect in the marketing actions of places that hosting major sport events.

Another relevant find is the cognitive dimension of the host city's image positively predicting the nation image. This is important, especially for an emerging country, because the cognitive aspects include attractions and infrastructure, which means that these aspects of the host city's image are very important and directly reflect the country's destination image. Moreover, they are aspects that really need investment in emerging countries like Brazil, to be prepared to host an event of that magnitude

Despite "Negative feelings" of Rio, it did not influence the overall image of Brazil. These feelings exist and are an important factor in the affective dimension, which brings further questions to future studies as to what would be the antecedents of these feelings.

One of the limitations of the study is that it focused on the relation of the destination's image in a context of sports mega-events, so tourist behaviour was not investigated. In addition, the results is about the sample investigated. Based on the findings of the study, managerial implications and the study's limitations, further research is needed to discover more about the relations between host city and the nation country in a sport mega-event context.

Some other studies including new variables may be done. Studies linking the image of the host city and the nation with a sample of Olympics attendants or people that had visited the destination and compare with those who did not are necessary to see how the level of familiarity and experience can influence positively or negatively. In addition, investigate the relationship of images in an out-of-game context to verify if the image relations remain alike because if it was a less popular destination inside the country and not in a sport mega-event context maybe the results could be diverse.

Futures studies could evaluate others dimensions of host city brand equity, since this study analyzed only the image and studies that deal with all dimensions of destination brand equity were not considering a sport mega-event context. Moreover, it is important a study comparing Rio de Janeiro's image (e.g. logo, symbols and overall branding) before, during and after the games to other hosts.

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Figure 1. Brazil destination logo and Rio Olympics host city logo

Source: Brazil (2009); Olympics (2016)

Figure 2. Hypotheses Graphic Model

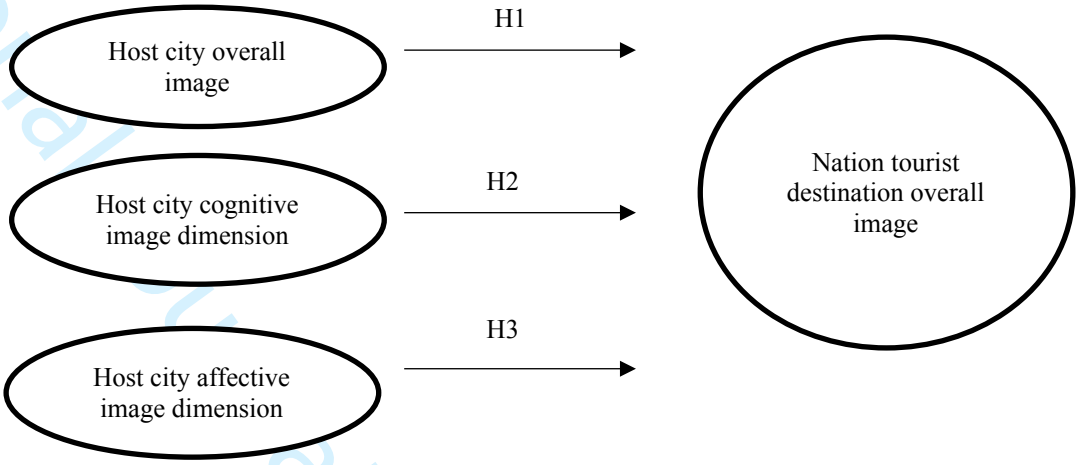


Table I - Factor Analysis – Brazil's and Rio's Cognitive Image Dimensions

Item/ Place	Brazil Cognitive Image Dimension			Rio Cognitive Image Dimension		
Items/Factors	Factor 1	Factor 2	Communalities	Factor 1	Factor 2	Communalities
Attractive local cuisine	.854		.782	.883		.819
Beautiful scenery and natural attractions	.849		.721	.915		.849
Interesting Historical and cultural attractions	.839		.737	.928		.867
Good options for nightlife/ entertainment	.666		.522	.713		.582
Adequate accommodation	.647		.668	-		-
Good value for money	.632		.429	.614		.475
Good climate	-			.674		.512
Good infrastructure		.891	.810		.876	.813
Safe		.845	.753		.805	.700
Values hygiene and cleanliness		.843	.755		.857	.753
Eigenvalue	4.560	1.615		4.768	1.606	
% variance	50.670	17.947		52.981	17.844	
% cumulative variance	50.670	68.618		52.981	70.825	
Cronbach's alpha	.870	.861		.896	.844	
Factor mean	5.553	3.937		5.395	4.063	

Table II - Factor Analysis – Brazil's and Rio's Affective Image Dimensions

Item/ Place	Brazil Affective Image Dimension			Rio Affective Image Dimension		
Items/Factors	Factor 1	Factor 2	Communalities	Factor 1	Factor 2	Communalities
Pleasant	.905		.842	.912		.857
Friendly	.861		.758	.897		.818
Relaxing	.798		.657	-		-
Reliable	.786		.620	.793		.699
Exciting	.738		.566	.828		.714
Hectic		.785	.622		.875	.768
Stressful		.759	.607		.830	.743
Terrifying		.701	.606		-	-
Eigenvalue	3.840	1.439		3.149	1.451	
% variance	47.999	17.895		52.478	24.187	
% cumulative variance	47.999	65.984		52.478	76.665	
Cronbach's alpha	.882	.628		.884	.658	
Factor mean	5.279	4.067		4.951	3.966	

Table III - Regression Coefficients

Model	Non-standardized coefficients		Standardized coefficients	T	Sig.	Correlations			Collinearity statistics	
	B	Standard error	Beta			Zero order	Partial	Part	Tolerance	VIF
1 (Constant)	1.702	.616		2.763	.006					
RioAttrac	.311	.093	.220	3.349	.001	.491	.208	.168	.582	1.720
RioInfra	.252	.072	.236	3.507	.001	.507	.217	.176	.551	1.814
RioPosFeel	.286	.095	.240	3.000	.003	.557	.187	.150	.392	2.551
RioNegFeel	-.153	.104	-.076	-1.481	.140	-.192	-.093	-.074	.950	1.053

Table IV - Summary Model

Model	R	R Square	Adjusted R Square	Standard Estimation Error	Change Statistic					Durbin-Watson
					R Square Change	F Change	gl1	gl2	Sig. F Change	
1	.613[a]	.376	.366	1.072	.376	37.504	4	249	.000	1.966

a. Predictors: (Constant), RioNegfeel, RioAttrac, RioInfra, RioPosFeel

b. Dependent variable: Brazil's overall image

Comments	Changes
REVIEWER 1	
Originality: No. Unfortunately, the authors did not provide a new or significant information to justify publication. There is no problem statement, no importance of study or why it is needed, no contribution, and no siginificance of the study presented. Just because it wasn't done previously, does not justify research. Based on the study design, questionnaire, and analysis, the review is not convinced of why the Olympic Games were considered.	We added the problem statement in the introduction as you suggested and improved the contribution description. You can see in the two last paragraphs of Introduction topic.
The Rio Olympics were held in 2016 and data was collected in 2017. The data is old and there have been so many studies on the Rio Games and Brazil over the years. This study is not unique enough and doesn't present new information for publication.	As the data the collection started in April 2017, the work started 8 months later until one year. We chose collecting in the year after the Olympics because we considered important focus on *a posteriori* studies to know how long the impact of that event persists. Studies on the Olympics, a posteriori, were carried out at different times after the games (Topic of Methodology): -Ladhari and Souiden, 2020 - 7 months after the Olympic Games event. -Singh and Zhou (2016) – the event was in 2008, the collected the data on 2013 -Tasci, Hahm and Breiter (2019) - the time intervals are arbitrarily decided to be one month before, one month after, five months after, and 13 months after - Hahm, Tasci and Terry (2019) - one month before the event, during the event, one month after, three months after, six months after, and 12 months after the Olympic Games Also is common that most evaluative studies on Olympics studies have been published years later as: Kim *et al.* (2019), who published in 2019, about events that occurred in 2014 e 2015. There is a need for a posteriori studies identified in the literature review research.: Ferreira, L. B., de Arruda Lourenção, M. T., Giraldi, J. D. M. E., & De Oliveira, J. H. C. (2018). Economic and image impacts of Summer Olympic Games in tourist destinations: a review of the literature. Tourism & Management Studies, Vol. 14 No.3, pp. 52-63. The references and the introduction were improved with the inclusion of articles about Brazil in recent years and

	about the Olympic games. Including the studies cited above.
Relationship to Literature: The literature review section is also weak. It is not structured well and does not provide a good synthesis of previous research on the constructs of interest. Also, unlike what the authors have claimed, there are many other studies that have focused on Brazil. There was a Special Issue dedicated to Brazil in the Journal of Hospitality and Tourism Insights published in 2020 (Volume 3 Issue 2 - Current Issues in the Hospitality and Tourism Industry in Brazil).	We improved the literature review by including more recent articles and more articles on Brazil, some of them from the special edition on Brazil of the Journal of Hospitality and Tourism Insights published in 2020 as you suggested.
Some of the references are cited incorrectly. I found years presented incorrectly and information from the citation provided incorrectly.	This information is very valuable, and we thank the reviewer. We detected some flaws in citations to the article in relation to references such as the article: Tasci, Hahm and Breiter (2019), "A longitudinal study of Olympic Games' impact on the image of a host country", *Journal of Travel & Tourism Marketing,* Vol. 36 No.4: pp. 443-457. That was cited in the text, but the reference was missing. We have corrected it.
Methodology: There are so many issues with the methodology. This paper is not based on theory or a strong theoretical background. The research design is weak.	The article is based on the attitude theory that underpins tourism destination image studies and also country image studies. We added this information in the introduction, second and first paragraph. We believe this made it clearer.
Some image attributes were tested but the scales were modified without justification. For example, the affective scale was changed to a Likert scale when it should have been a semantic differential scale. The overall destination image scale was basically a dichotomous scale (positive or negative).	We understand the reviewer concerns, however the scale adaptation is common in image studies, including the use of dichotomous scales. We think that this change did not compromise the research. The change was made only to facilitate the analysis. Also, we take care in validating the collected data. Furthermore there are studies like Moon et al. (2011) that measured Affective image modified scales developed by Russell et al. (1981), using a five-point Likert type scale ranging from strongly disagree (1) to strongly agree (5). Gallarza, Saura and García (2002), in their research which includes a survey of several articles on destination image found the seven-point Likert Scale is the most commonly used in image studies, that is why we chose to use likert scale to all scales in this research. About the use of a dichotomy scale to measuring overall image, is also common in this literature including some

important papers cited on our manuscript like in: Rocha and Fink (2017) that measured the overall image using dichotomous question.

The reviewer is not convinced of using regression on image to another image, although one is for a city and the other is for a country. It would have made more sense of you used the same image attributes for the city and country and compared those attributes to see if there is a significant difference between the two. This would also show if the city has a stronger image or the country has a stronger image.

We appreciate this suggestion and have now included it in the analysis, comparing the two images, as you can see on “6.2 Data analysis” and “7 Discussion”.

Perhaps in the Introduction, there should have been a stronger argument regarding the difference between city's destination image and country's destination image (which is different from "country image"). You have to be careful when using the term "country image" because this is very different from "destination image". This study's focus is on destination image so when referring to the country's image, you need to be clear and use "country's image" or "country's destination image" rather than "country image".

We have added this explanation in the second and third paragraphs of the introduction. We emphasize throughout the text that this is a destination image study. In fact, we believe that the manuscript presents a stronger case following your suggestion.

We have unified the terms using destination image in all manuscript, even when dealing with a country. We put a paragraph in the introduction explaining the difference between country image and tourist destination image (third paragraph).

Another issue with the study is the data collected. The authors used a convenience sample (university students), which was collected online and in-person. Then, the two data sets were combined without any bias checks.

We have included a paragraph explaining about the care that was taken in relation to biases (third paragraph of Topic 5.3 Analysis)

Results: Did you collect perceptions of Rio as a developing city or Brazil as a developing country? How can you draw conclusions based on the destination image atttributes you collected?	Perceptions of Brazil and Rio were collected as tourist destinations. In the case of Rio, as a destination that hosts the Olympics. We did not collect perceptions as a developing country or city, we only emphasized this information on manuscript, because we believe that this would have to be taken into account in the analysis of the results.
Due to the issues with methodology and analysis, the results do not present reliable information.	The same questions were asked for Rio and Brazil, because Rio, despite the host city context, remains a tourist destination, a tourist destination that hosts an event. That was the methodological option. We tried to make this information clearer in the method section. We did some changes and tried to make the methodology clearer so that the results would make sense. Explaining biases, the sample, and other methodological details that make the information more reliable.
Practicality and/or Research implications: This is a very important section of a research paper. However, the authors do not provide implications for academia or industry. There is no new information to provide recommendations or suggestions to research or industry. The authors should be able to answer the "so what?" in this section. What do your results mean and why was it a significant finding?	We have improved the implications by indicating more recommendations for future studies.
Quality of Communication: Overall, the paper is poorly written. It can benefit from professional editing services. There were many grammatical errors. The writing style can be more professional.	We have revised the manuscript.
REVIEWER 2	
Originality: The article offers an interesting contribution since it raises new relationships within the construct of destination image in the context of a mega event	We thank the reviewer for the observation.
Relationship to Literature: The article provides an adequate review of the literature. However, the inclusion of more studies from the last two years is missing. Also, a review of possible behavioral or explanatory theories associated with the topic under study.	We improved the review by adding more recent studies such as: Ferreira et al. (2021); Valduga (2019); Girginov and Preuss (2021). Among others highlighted in the literature review topic. About the theory, we reinforced destination and country image theories, and attitude theory on the introduction on second and third paragraphs.
Methodology: The online survey collection procedure should be explained in more detail.	We made the observations in the methodology, indicating the questionnaire platform and giving

For example, which platform or server was used to send the questionnaire and store the responses. On the other hand, nothing is indicated about how the biases associated with non-probability sampling have been addressed. Nor is there any indication as to what type of non-probability sampling was used. It should also be indicated whether authorization has been requested from the university ethics committee and provide data on the ethical aspects of the research.	more details about the treatment of biases, the type of sampling and the ethics committee. About the ethics committee, we added information about the authorization of the study in the supplementary documents.
Why do you use a Varimax orthogonal rotation instead of an Oblimin oblique rotation? In situations where correlation between dimensions is expected, it is advisable to use oblique rotations	Among the orthogonal methods, 'varimax' is the most successful and the most commonly according Baloglu and McCleary (1999) that used Varimax. According to Hair et al. (2009), in general, the two forms of rotation produce very similar results. According to Pallant (2007), the Varimax rotation type is the most commonly used, as this method seeks to minimize the number of variables that present high loads on each factor. Pallant, J. SPSS Survival Manual. Open University Press, 2007.
Results: No complete evidence is provided on the fulfillment or non-fulfillment of the assumptions of the regression analysis. Only aspects of multitocollinearity and tolerance are mentioned. It is necessary to refer to other assumptions such as homoscedasticity, independence of the residuals or normal distribution of the errors. There is no explanation or interpretation of the reliability data reported in the exploratory factor analysis table: are the coefficients good or adequate to consider the internal consistency of the factors sufficient?	We added this information in the section 6.2 Data analysis, fourth paragraph.
No descriptive statistics are provided for the variables under study, such as mean, standard deviation, skewness and kurtosis values.	We added the descriptive statistics as supplementary documents of the article.
Practicality and/or Research implications: Although the type of sampling and the number of samples do not allow generalization of the results, it can be considered an exploratory attempt of these relationships.	We thank the reviewer for the observation. We add this information to the implications.
Quality of Communication: There are no problems in the writing of the article. However,	Results and discussion were separated to facilitate the understanding.

the structure and organization of the results and discussion sections is a bit confusing, since a distinction should be made between the results and discussion sections.	
REVIEWER 3	
Originality: The paper really need to be unpacked further in relation to how this study contributes to theory and practice. I believe the paper is of interest to readers, but the statement of purpose needs to be improved. To sum up, this article requires major revisions as there are a number of issues with the purpose and approach which on the whole are unclear. You should focus your efforts on establishing a more logical, coherent and tighter fit between theory, methodological process and findings.	We appreciate the comment. We improved the problematization of the article by adding the problem statement in the introduction and improving the description of the contribution (two last paragraphs of the Introduction)
Relationship to Literature: One area that is missing from your review and that would add value to your paper are the host city image dimensions. How does Rio 2016 and Rio de Janeiro's image (e.g. logo, symbols and overall branding) before, during and after the games compare to other hosts. Additionally, this article is missing a whole host of papers from this journal on mega events which could be more appropriately integrated.	We improved the review by adding more recent studies, including a paper from International Journal of Event and Festival Management: Girginov and Preuss (2021). Unfortunately, the image of Rio before, during and after the games compared to other host cities was not the focus of the study. However, it is an interesting idea. We added your suggestion in the section that dialogs about future studies, last paragraph of the conclusion. We also added the logos of Rio as host city and Brazil as a tourist destination in manuscript for a better visual appeal of the theme.
Methodology: The methodology encompassing procedures, data collection and analysis techniques requires further attention. Please explain and clarify the sample and data collection with more detail.	We improved the methodology giving more details of the procedures performed.
Results: On occasions it is not clear which hypothesis you are referring to e.g. page 16, line 52. At times, findings are quite descriptive rather than probing or taking a critical perspective. A more focused approach is recommended to support points argued in the discussion and to structure the findings and the conclusion sections to draw out original insights. For example: • Page 18 - These results are significant considering that it is a destination which is part	We improved the discussion of results and included new studies.

of the nation and because Rio is a very important destination for Brazil. • Page 19 - This research brought new contribution, when compared to another studies on sport mega-event because of the combination of the aspects investigated that were not explored together in that literature before.	We rewrite some phrases to be clearer about the insights.
Practicality and/or Research implications: Specific practical and management implications that can be drawn from the study have not been appropriately unpacked and explained to demonstrate how the research's findings may be beneficial to future academics and/or practitioners. Implications for future research and contribution to practice could be more directly stated. The authors need to expand on future research themes.	We have improved implications and indicated more recommendations for future studies.
Quality of Communication: The quality of the presentation of your article is sufficient. Although, a general comment for the whole paper is that the author(s) should consider the flow and how they introduce and link between each paragraph. To increase the readability of the paper, a suggestion is to include more subheadings	We included more subheading by separating Results from Discussion.
The author(s) need to ensure they have properly proofread their work, as there are a number of errors, unfinished or incorrectly structured sentences. Moreover, a good proofread will ensure that all claims are substantiated with evidence and appropriate sources. Please find some errors listed below: • Page 4 - The results Gartner and Ruzzier (2011) study • Page 12 - The measure the cognitive image dimension of Rio	We have revised the manuscript.

Demographics

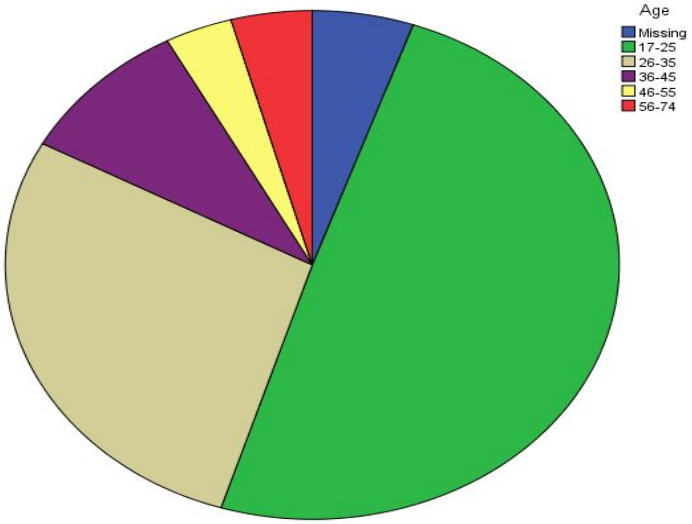
Age

Age

		Overall	Online	On paper
N	Valid	266	105	161
	Missing	15	3	12
Mean		**28.80**	**29.08**	**28.61**
Std. Deviation		10.867	8.305	12.274
Variance		118.087	68.975	150.663
Minimum		17	19	17
Maximum		74	61	74

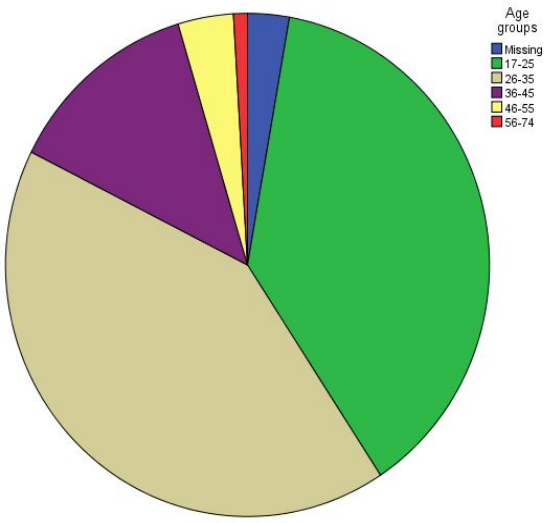
Age Total Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25	**139**	49.5	52.3	52.3
	26-35	**79**	28.1	29.7	**82.0**
	36-45	26	9.3	9.8	91.7
	46-55	10	3.6	3.8	95.5
	56-74	12	4.3	4.5	100.0
	Total	266	94.7	100.0	
Missing	System	15	5.3		
Total		281	100.0		



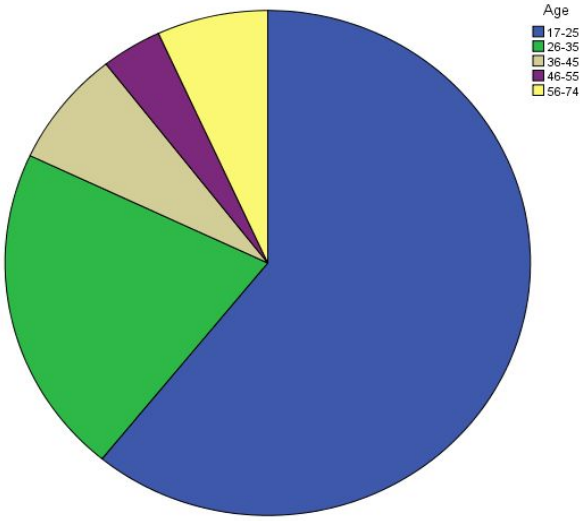
Age – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25	**41**	38.0	39.0	39.0
	26-35	**45**	41.7	42.9	**81.9**
	36-45	14	13.0	13.3	95.2
	46-55	4	3.7	3.8	99.0
	56-74	1	.9	1.0	100.0
	Total	105	97.2	100.0	
Missing	System	3	2.8		
Total		108	100.0		



Age – On Paper Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25	98	**56.6**	60.9	60.9
	26-35	34	**19.7**	21.1	**82.0**
	36-45	12	6.9	7.5	89.4
	46-55	6	3.5	3.7	93.2
	56-74	11	6.4	6.8	100.0
	Total	161	93.1	100.0	
Missing	System	12	6.9		
Total		173	100.0		

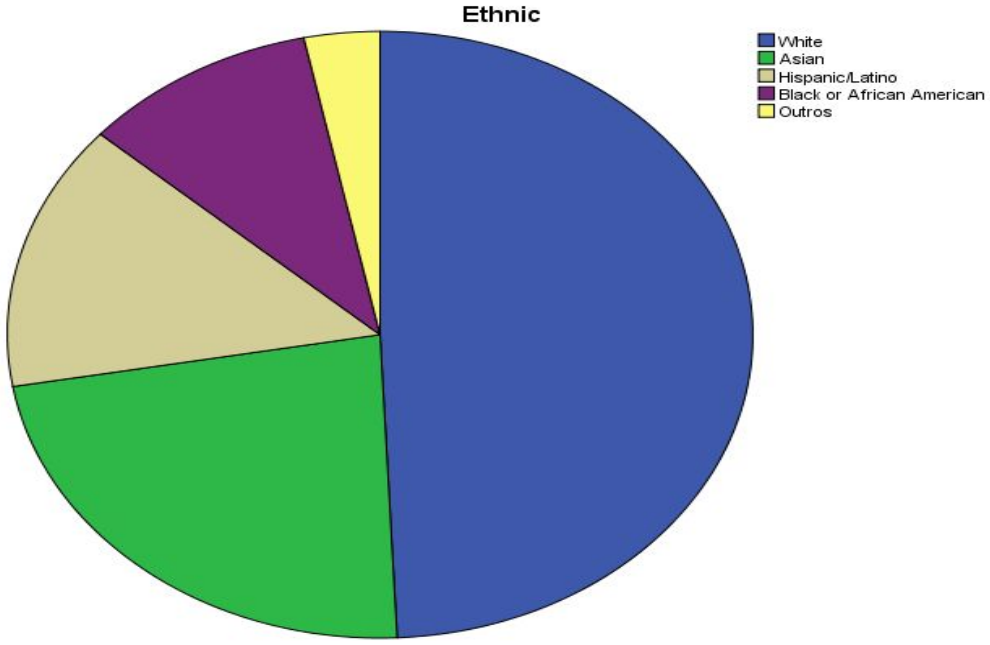


Ethnic

		Ethnic		
		Overall	Online	On paper
N	Valid	274	107	167
	Missing	7	1	6
Mode		**1**	**1**	**1**
Std. Deviation		**1.342**	**1.370**	**1.328**
Variance		**1.801**	**1.877**	**1.762**
Minimum		1	1	1
Maximum		6	6	6

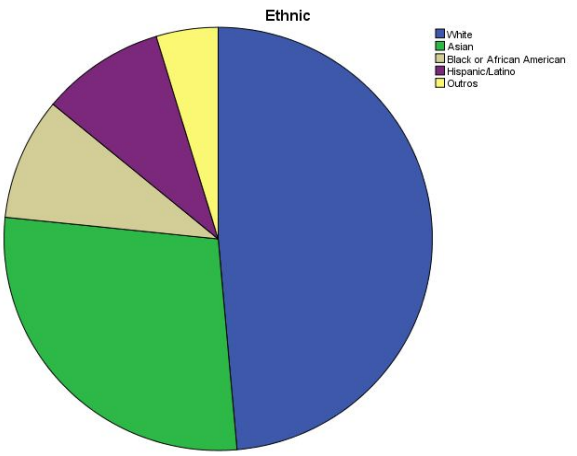
Ethnic – Overall Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	135	48.0	49.3	49.3
	Asian	63	22.4	23.0	72.3
	Hispanic/Latino	39	13.9	14.2	86.5
	Black or African American	28	10.0	10.2	96.7
	Outros	9	3.2	3.3	100.0
	Total	274	97.5	100.0	
Missing	System	7	2.5		
Total		281	100.0		



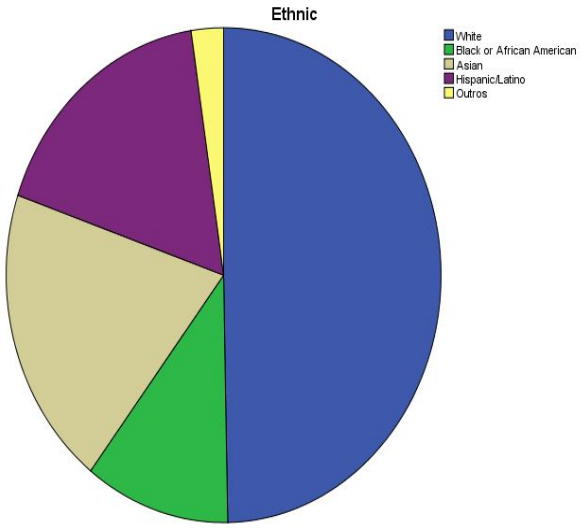
Ethnic – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	**52**	48.1	48.6	48.6
	Asian	**30**	27.8	28.0	76.6
	Black or African American	10	9.3	9.3	86.0
	Hispanic/ Latino	10	9.3	9.3	95.3
	Outros	5	4.6	4.7	100.0
	Total	107	99.1	100.0	
Missing	System	1	.9		
Total		108	100.0		



Ethnic – On Paper Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	**83**	48.0	49.7	49.7
	Asian	**33**	19.1	19.8	69.5
	Hispanic/ Latino	29	16.8	17.4	86.8
	Black or African American	18	10.4	10.8	97.6
	Outros	4	2.3	2.4	100.0
	Total	167	96.5	100.0	
Missing	System	6	3.5		
Total		173	100.0		



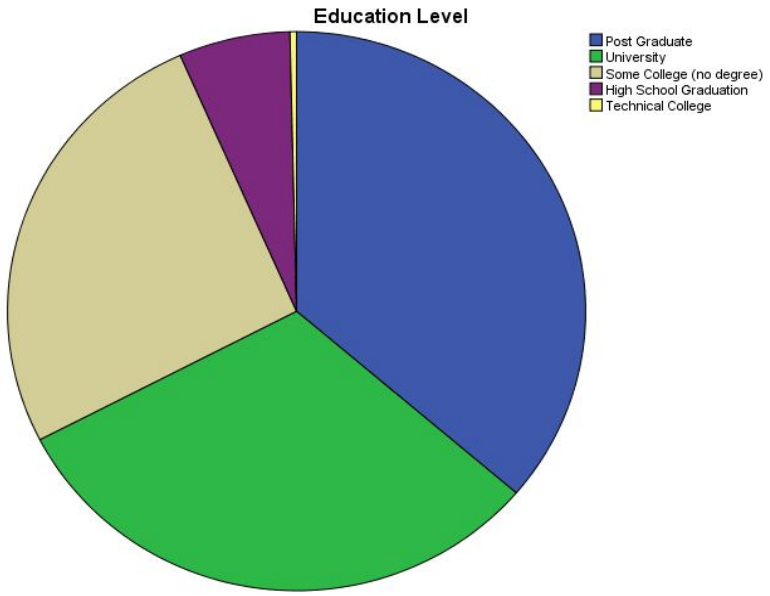
Education Level

Education Level

		Overall	Online	On paper
N	Valid	273	107	166
	Missing	8	1	7
Mean		**4.91**	**5.22**	**4.70**
Mode		6	6	5
Std. Deviation		1.093	.993	1.108
Variance		1.194	.987	1.227
Minimum		2	2	2
Maximum		6	6	6

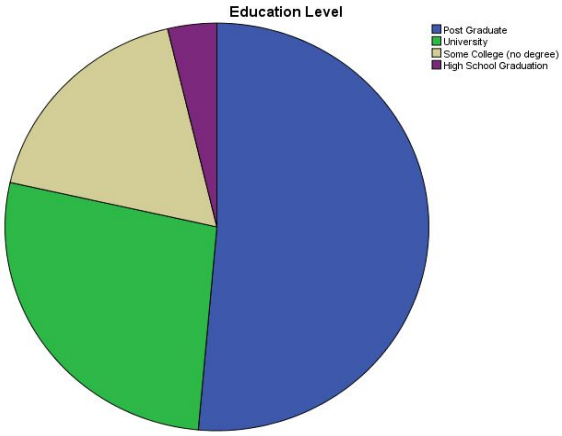
Education Level – General Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post Graduate	99	35.2	36.3	36.3
	University	85	30.2	31.1	67.4
	Some College (no degree)	71	25.3	26.0	93.4
	High School Graduation	17	6.0	6.2	99.6
	Technical College	1	.4	.4	100.0
	Total	273	97.2	100.0	
Missing	System	8	2.8		
Total		281	100.0		



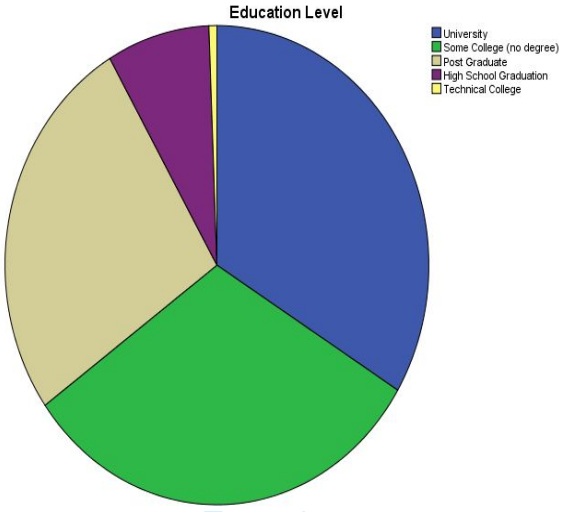
Education Level – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post Graduate	55	50.9	51.4	51.4
	University	29	26.9	27.1	78.5
	Some College (no degree)	19	17.6	17.8	96.3
	High School Graduation	4	3.7	3.7	100.0
	Total	107	99,1	100.0	
Missing	System	1	.9		
Total		108	100.0		



Education Level – On Paper Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	University	56	32.4	33.7	33.7
	Some College (no degree)	52	30.1	31.3	65.1
	Post Graduate	44	25.4	26.5	91.6
	High School Graduation	13	7.5	7.8	99.4
	Technical College	1	.6	.6	100.0
	Total	166	96.0	100.0	
Missing	System	7	4.0		
Total		173	100.0		

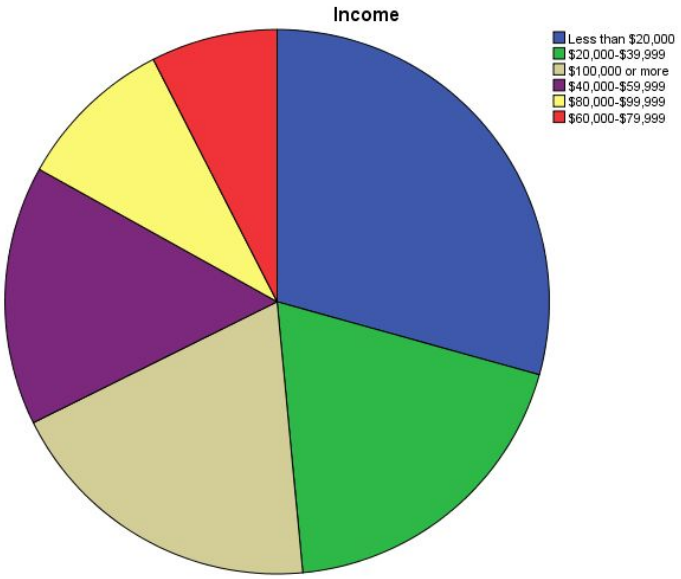


Income

		Income		
		General	Online	On paper
N	Valid	266	107	159
	Missing	15	1	14
Mean		**3.06**	**2.76**	**3.26**
Mode		**1**	**1**	**1**
Std. Deviation		**1.884**	**1.709**	**1.973**
Variance		3.551	2.922	3.892
Minimum		1	1	1
Maximum		6	6	6

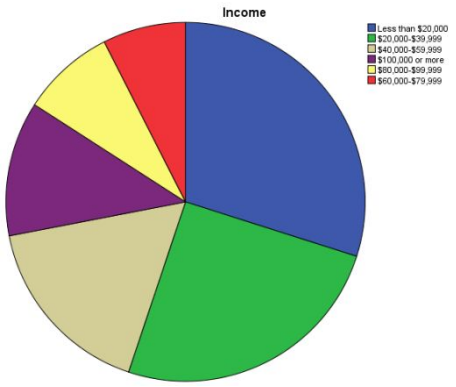
Income – General Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $20,000	**78**	27.8	29.3	29.3
	$20,000-$39,999	51	18.1	19.2	48.5
	$100,000 or more	51	18.1	19.2	67.7
	$40,000-$59,999	41	14.6	15.4	83.1
	$80,000-$99,999	25	8.9	9.4	92.5
	$60,000-$79,999	20	7.1	7.5	100.0
	Total	266	94.7	100.0	
Missing	System	15	5.3		
Total		281	100.0		



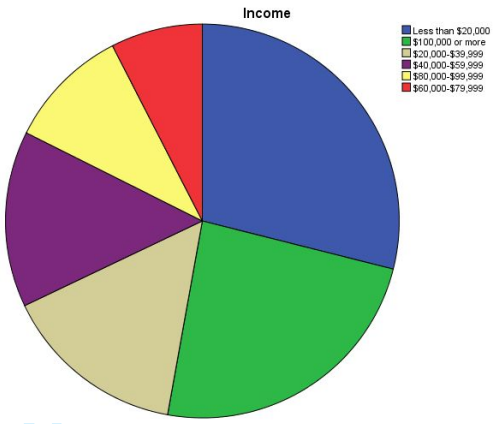
Income – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $20,000	32	29.6	**29.9**	29.9
	$20,000-$39,999	27	25.0	**25.2**	55.1
	$40,000-$59,999	18	16.7	**16.8**	72.0
	$100,000 or more	13	12.0	12.1	84.1
	$80,000-$99,999	9	8.3	8.4	92.5
	$60,000-$79,999	8	7.4	7.5	100.0
	Total	107	99.1	100.0	
Missing	System	1	.9		
Total		108	100.0		



Income – On Paper Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $20,000	46	26.6	**28.9**	28.9
	$100,000 or more	38	22.0	**23.9**	52.8
	$20,000-$39,999	24	13.9	**15.1**	67.9
	$40,000-$59,999	23	13.3	14.5	82.4
	$80,000-$99,999	16	9.2	10.1	92.5
	$60,000-$79,999	12	6.9	7.5	100.0
	Total	159	91.9	100.0	
Missing	System	14	8.1		
Total		173	100.0		



Country of Birth

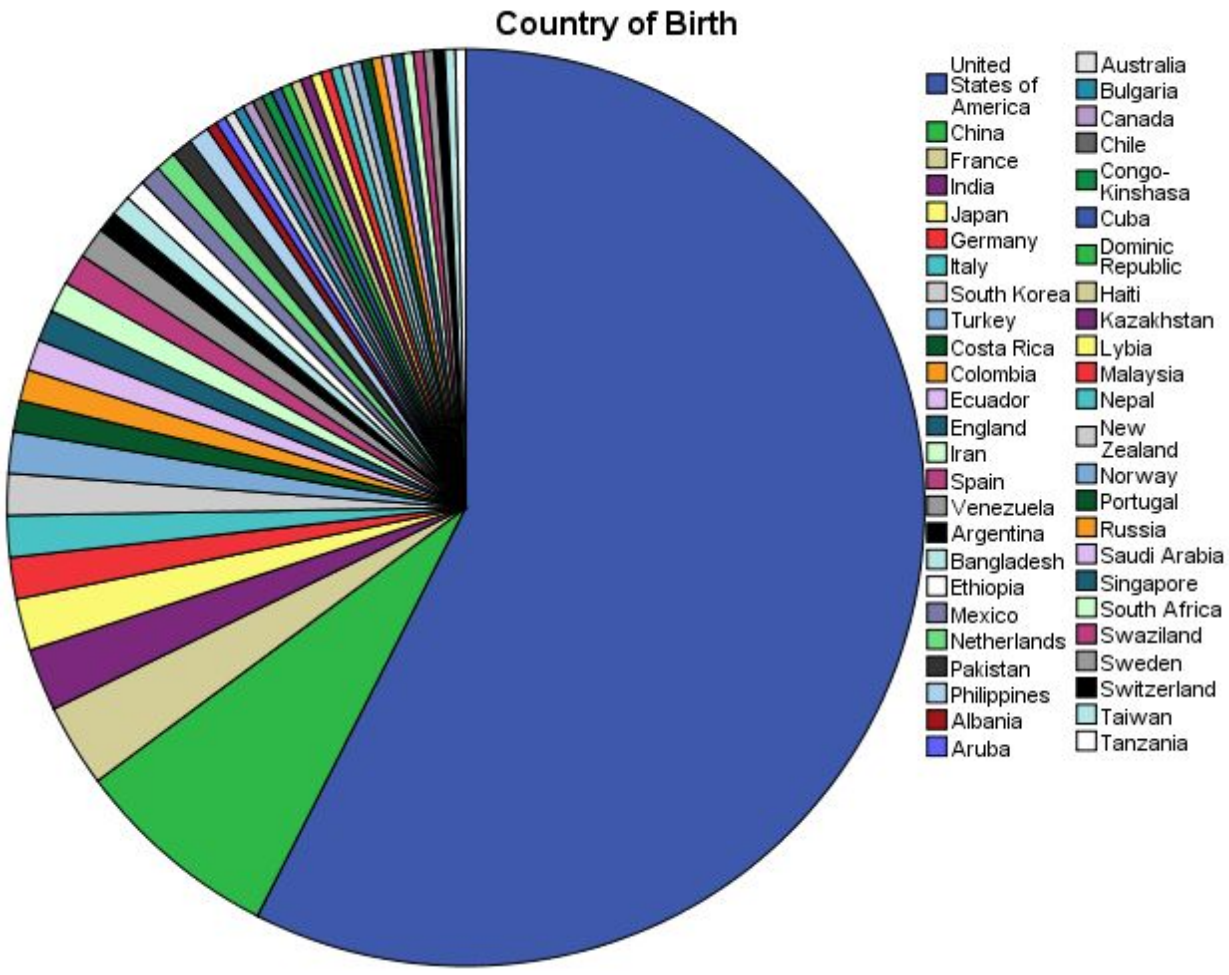
Country of Birth

		General	Online	On Paper
N	Valid	273	107	166
	Missing	8	1	7
Mode		48	48	48
Std. Deviation		15.417	15.872	14.078
Variance		237.684	251.913	198.202
Minimum		1	2	1
Maximum		49	49	49

Country of Birth- General Sample

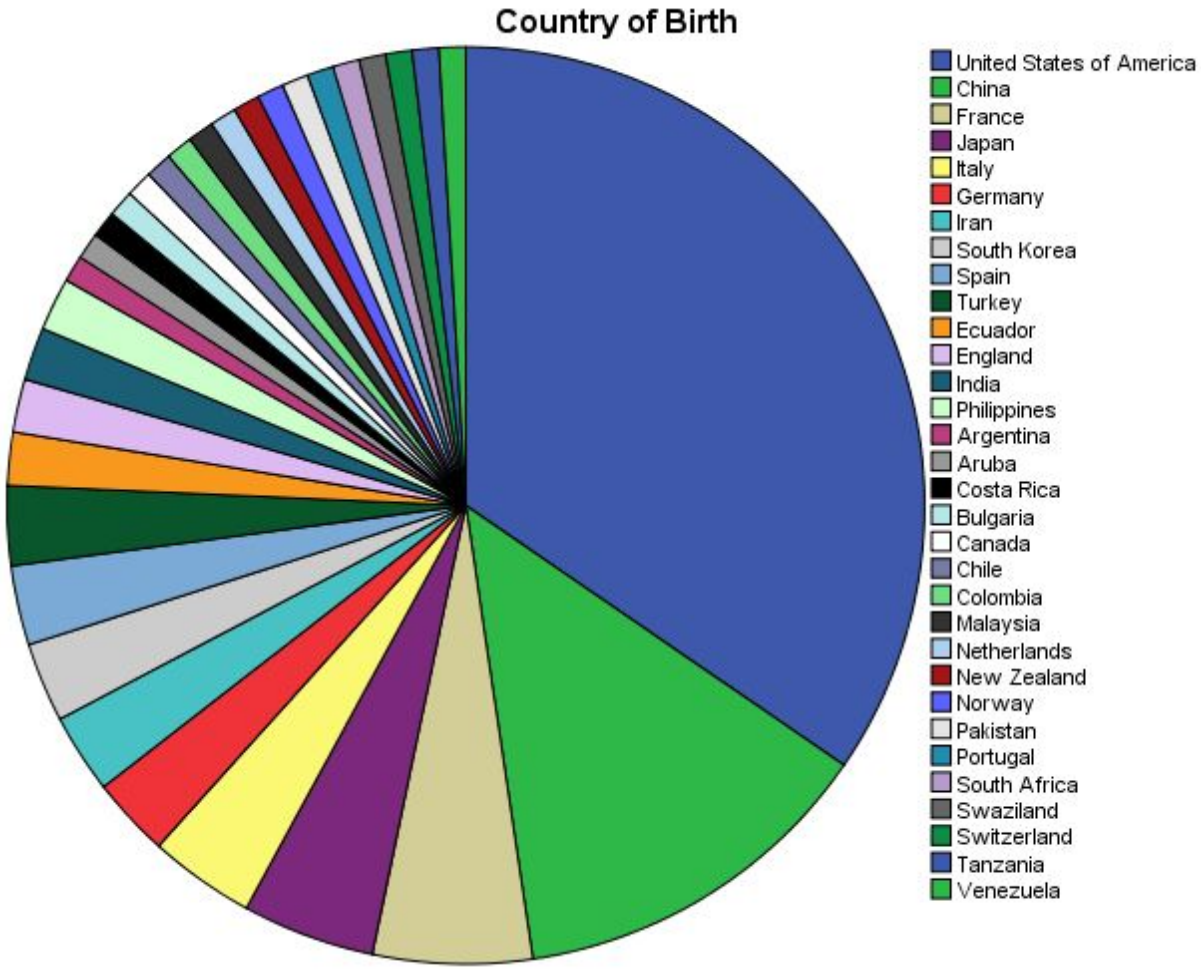
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	United States of America	157	55.9	57.5	57.5
	China	20	7.1	7.3	64.8
	France	8	2.8	2.9	67.8
	India	6	2.1	2.2	70.0
	Japan	5	1.8	1.8	71.8
	Germany	4	1.4	1.5	73.3
	Italy	4	1.4	1.5	74.7
	South Korea	4	1.4	1.5	76.2
	Turkey	4	1.4	1.5	77.7
	Costa Rica	3	1.1	1.1	78.8
	Colombia	3	1.1	1.1	79.9
	Ecuador	3	1.1	1.1	81.0
	England	3	1.1	1.1	82.1
	Iran	3	1.1	1.1	83.2
	Spain	3	1.1	1.1	84.2
	Venezuela	3	1.1	1.1	85.3
	Argentina	2	.7	.7	86.1
	Bangladesh	2	.7	.7	86.8
	Ethiopia	2	.7	.7	87.5

	Mexico	2	.7	.7	88.3
	Netherlands	2	.7	.7	89.0
	Pakistan	2	.7	.7	89.7
	Philippines	2	.7	.7	90.5
	Albania	1	.4	.4	90.8
	Aruba	1	.4	.4	91.2
	Australia	1	.4	.4	91.6
	Bulgaria	1	.4	.4	91.9
	Canada	1	.4	.4	92.3
	Chile	1	.4	.4	92.7
	Congo-Kinshasa	1	.4	.4	93.0
	Cuba	1	.4	.4	93.4
	Dominic Republic	1	.4	.4	93.8
	Haiti	1	.4	.4	94.1
	Kazakhstan	1	.4	.4	94.5
	Lybia	1	.4	.4	94.9
	Malaysia	1	.4	.4	95.2
	Nepal	1	.4	.4	95.6
	New Zealand	1	.4	.4	96.0
	Norway	1	.4	.4	96.3
	Portugal	1	.4	.4	96.7
	Russia	1	.4	.4	97.1
	Saudi Arabia	1	.4	.4	97.4
	Singapore	1	.4	.4	97.8
	South Africa	1	.4	.4	98.2
	Swaziland	1	.4	.4	98.5
	Sweden	1	.4	.4	98.9
	Switzerland	1	.4	.4	99.3
	Taiwan	1	.4	.4	99.6
	Tanzania	1	.4	.4	100.0
	Total	273	97.2	100.0	
Missing	System	8	2.8		
Total		281	100.0		


Country of Birth
United States of America
China
France
India
Japan
Germany
Italy
South Korea
Turkey
Costa Rica
Colombia
Ecuador
England
Iran
Spain
Venezuela
Argentina
Bangladesh
Ethiopia
Mexico
Netherlands
Pakistan
Philippines
Albania
Aruba
Australia
Bulgaria
Canada
Chile
Congo-Kinshasa
Cuba
Dominic Republic
Haiti
Kazakhstan
Lybia
Malaysia
Nepal
New Zealand
Norway
Portugal
Russia
Saudi Arabia
Singapore
South Africa
Swaziland
Sweden
Switzerland
Taiwan
Tanzania

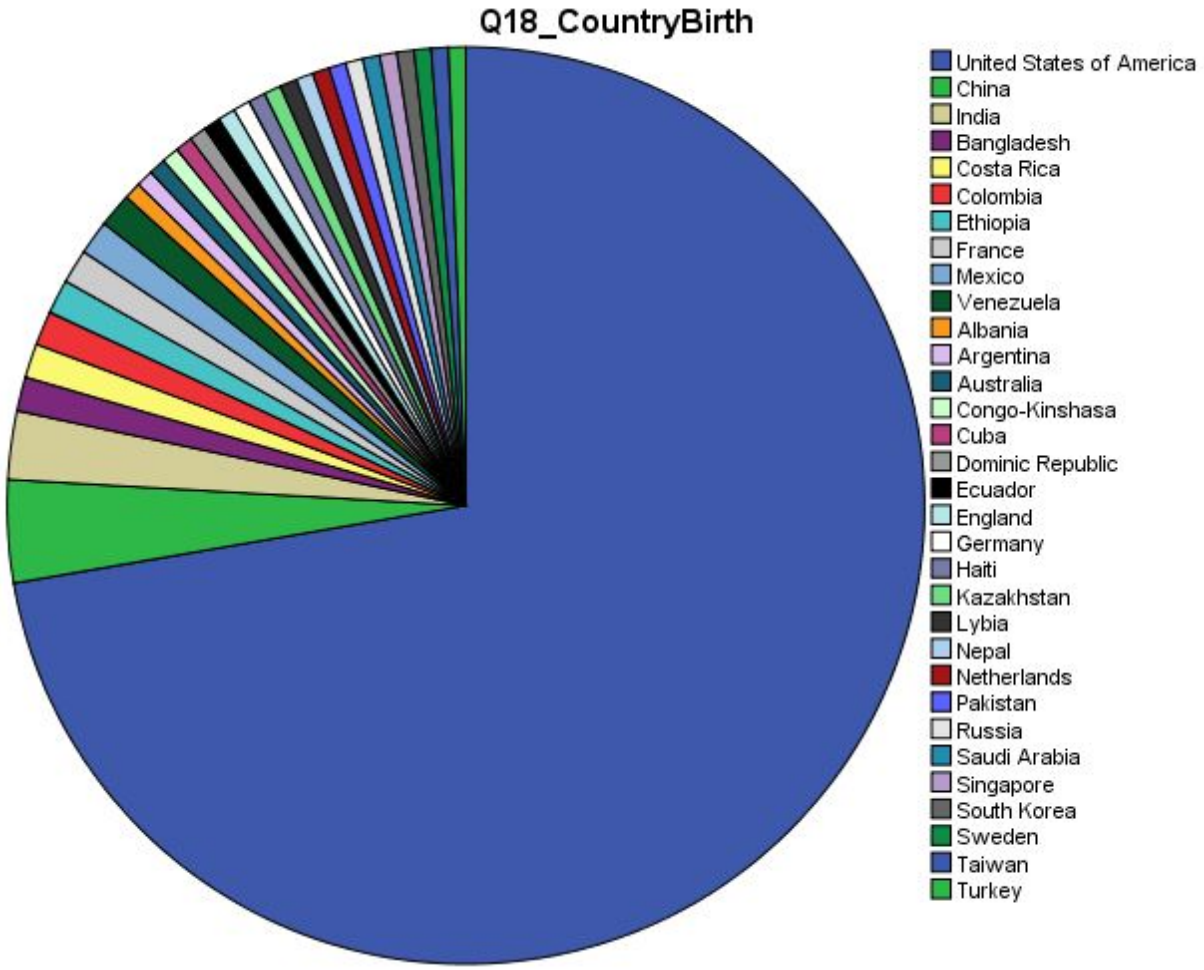
Country of Birth – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	United States of America	37	34.3	34.6	34.6
	China	14	13.0	13.1	47.7
	France	6	5.6	5.6	53.3
	Japan	5	4.6	4.7	57.9
	Italy	4	3.7	3.7	61.7
	Germany	3	2.8	2.8	64.5
	Iran	3	2.8	2.8	67.3
	South Korea	3	2.8	2.8	70.1
	Spain	3	2.8	2.8	72.9
	Turkey	3	2.8	2.8	75.7
	Ecuador	2	1.9	1.9	77.6
	England	2	1.9	1.9	79.4
	India	2	1.9	1.9	81.3
	Philippines	2	1.9	1.9	83.2
	Argentina	1	.9	.9	84.1
	Aruba	1	.9	.9	85.0
	Costa Rica	1	.9	.9	86.0
	Bulgaria	1	.9	.9	86.9
	Canada	1	.9	.9	87.9
	Chile	1	.9	.9	88.8
	Colombia	1	.9	.9	89.7
	Malaysia	1	.9	.9	90.7
	Netherlands	1	.9	.9	91.6
	New Zealand	1	.9	.9	92.5
	Norway	1	.9	.9	93.5
	Pakistan	1	.9	.9	94.4
	Portugal	1	.9	.9	95.3
	South Africa	1	.9	.9	96.3
	Swaziland	1	.9	.9	97.2
	Switzerland	1	.9	.9	98.1
	Tanzania	1	.9	.9	99.1
	Venezuela	1	.9	.9	100.0
	Total	107	99.1	100.0	
Missing	System	1	.9		
Total		108	100.0		


Country of Birth
United States of America
China
France
Japan
Italy
Germany
Iran
South Korea
Spain
Turkey
Ecuador
England
India
Philippines
Argentina
Aruba
Costa Rica
Bulgaria
Canada
Chile
Colombia
Malaysia
Netherlands
New Zealand
Norway
Pakistan
Portugal
South Africa
Swaziland
Switzerland
Tanzania
Venezuela

Country of Birth – On paper Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	United States of America	120	69.4	72.3	72.3
	China	6	3.5	3.6	75.9
	India	4	2.3	2.4	78.3
	Bangladesh	2	1.2	1.2	79.5
	Costa Rica	2	1.2	1.2	80.7
	Colombia	2	1.2	1.2	81.9
	Ethiopia	2	1.2	1.2	83.1
	France	2	1.2	1.2	84.3
	Mexico	2	1.2	1.2	85.5
	Venezuela	2	1.2	1.2	86.7
	Albania	1	.6	.6	87.3
	Argentina	1	.6	.6	88.0
	Australia	1	.6	.6	88.6
	Congo-Kinshasa	1	.6	.6	89.2
	Cuba	1	.6	.6	89.8
	Dominic Republic	1	.6	.6	90.4
	Ecuador	1	.6	.6	91.0
	England	1	.6	.6	91.6
	Germany	1	.6	.6	92.2
	Haiti	1	.6	.6	92.8
	Kazakhstan	1	.6	.6	93.4
	Lybia	1	.6	.6	94.0
	Nepal	1	.6	.6	94.6
	Netherlands	1	.6	.6	95.2
	Pakistan	1	.6	.6	95.8
	Russia	1	.6	.6	96.4
	Saudi Arabia	1	.6	.6	97.0
	Singapore	1	.6	.6	97.6
	South Korea	1	.6	.6	98.2
	Sweden	1	.6	.6	98.8
	Taiwan	1	.6	.6	99.4
	Turkey	1	.6	.6	100.0
	Total	166	96.0	100.0	
Missing	System	7	4.0		
Total		173	100.0		


Q18_CountryBirth
United States of America
China
India
Bangladesh
Costa Rica
Colombia
Ethiopia
France
Mexico
Venezuela
Albania
Argentina
Australia
Congo-Kinshasa
Cuba
Dominic Republic
Ecuador
England
Germany
Haiti
Kazakhstan
Lybia
Nepal
Netherlands
Pakistan
Russia
Saudi Arabia
Singapore
South Korea
Sweden
Taiwan
Turkey

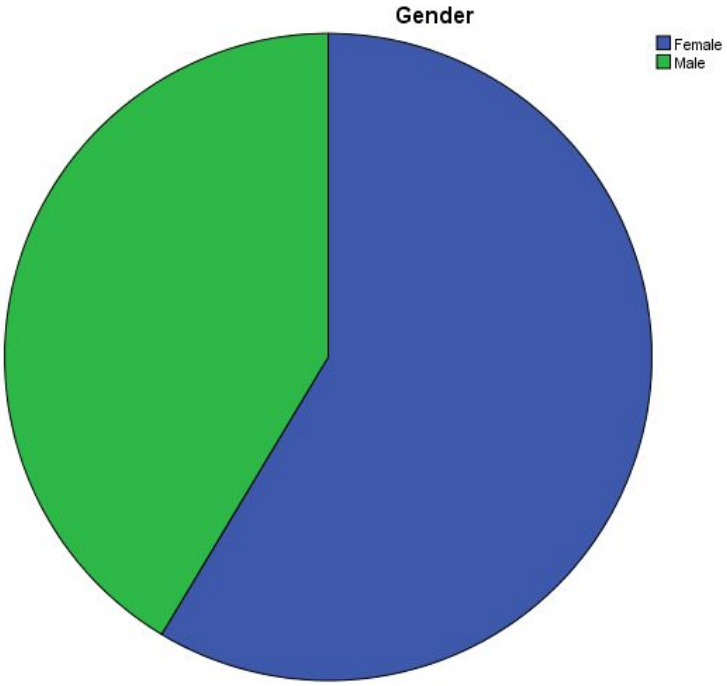
Gender

Gender

		General	Online	On Paper
N	Valid	273	106	167
	Missing	8	2	6
Female valid percent		**56.9**	**53.8**	**61.7**
Male valid percent		**40.2**	**46.2**	**38.3**
Mode		**2**	**2**	**2**
Std. Deviation		.493	.501	.488
Variance		.243	.251	.238
Minimum		1	1	1
Maximum		2	2	2

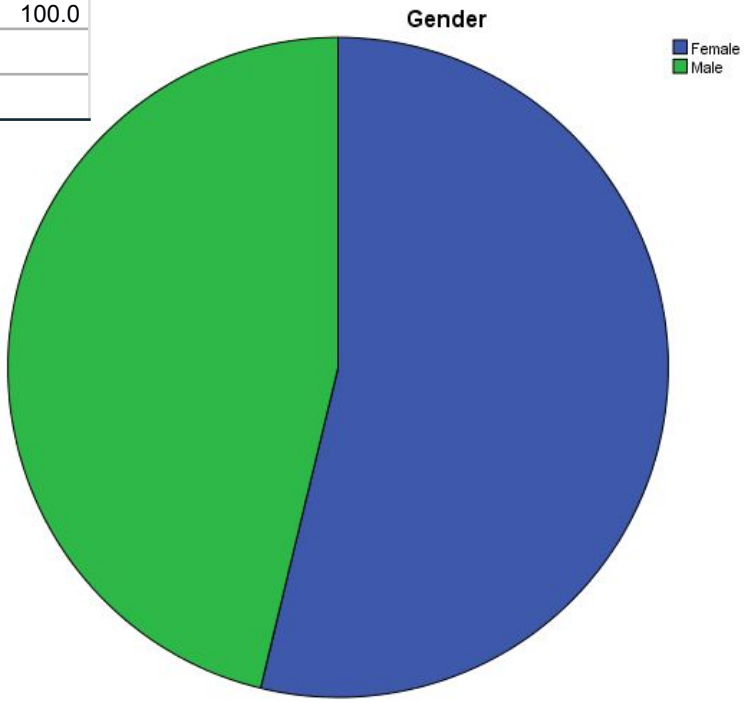
Gender- General Sample

		Frequency	Percent	Valid Percent
Valid	Female	160	**56.9**	58.6
	Male	113	**40.2**	41.4
	Total	273	97.2	100.0
Missing	System	8	2.8	
Total		281	100.0	



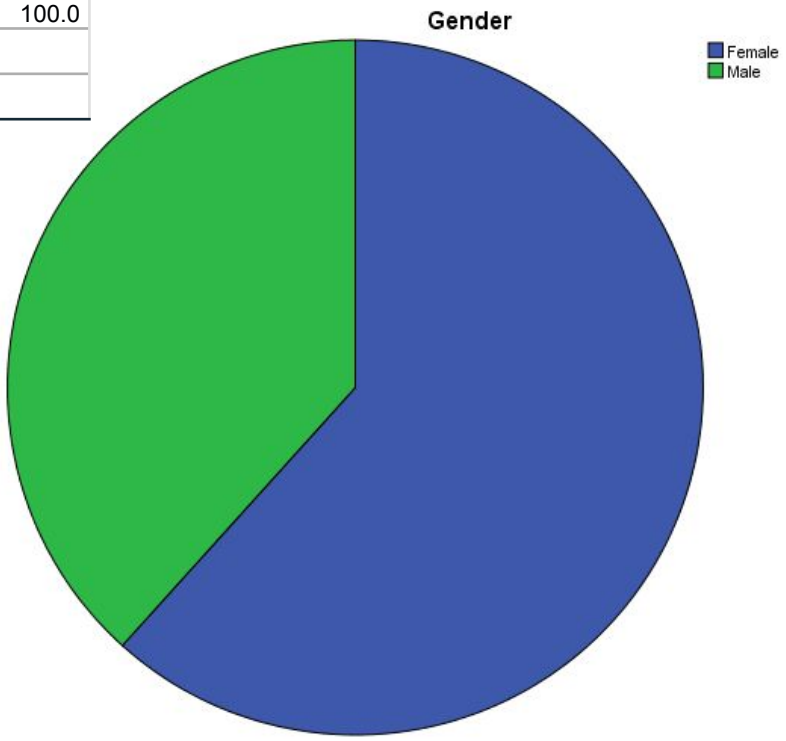
Gender- Online Sample

		Frequency	Percent	Valid Percent
Valid	Female	**57**	52.8	**53.8**
	Male	**49**	45.4	**46.2**
	Total	106	98.1	100.0
Missing	System	2	1.9	
Total		108	100.0	



Gender- On Paper Sample

		Frequency	Percent	Valid Percent
Valid	Female	103	59.5	61.7
	Male	64	37.0	38.3
	Total	167	96.5	100.0
Missing	System	6	3.5	
Total		173	100.0	



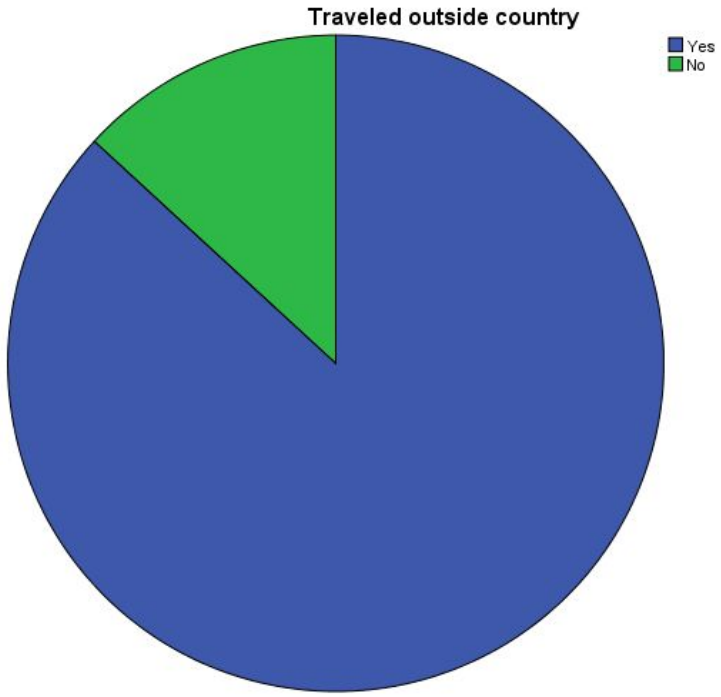
Travel Behavior

Traveled outside country

		General	Online	On paper
N	Valid	281	108	173
	Missing	0	0	0
Percent Yes		**86.8**	**93.5**	**82.7**
Percent No		**13.2**	**6.5**	**17.3**
Mode		1	1	1
Std. Deviation		.339	.247	.380
Variance		.115	.061	.144
Minimum		1	1	1
Maximum		2	2	2

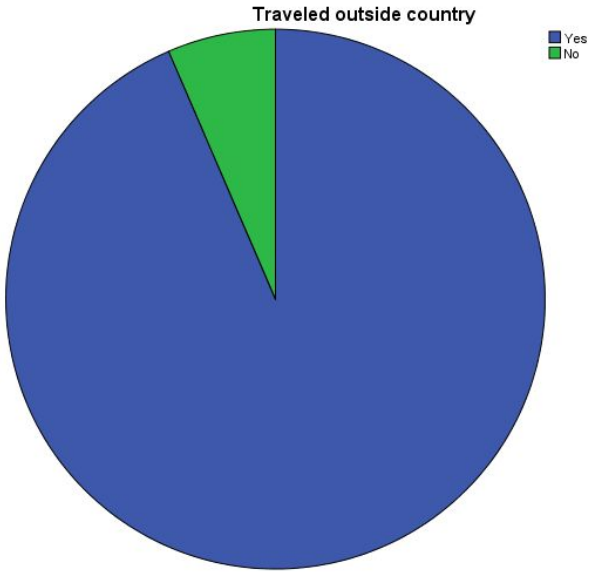
Traveled outside country- General Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	244	86.8	86.8	86.8
	No	37	13.2	13.2	100.0
	Total	281	100.0	100.0	



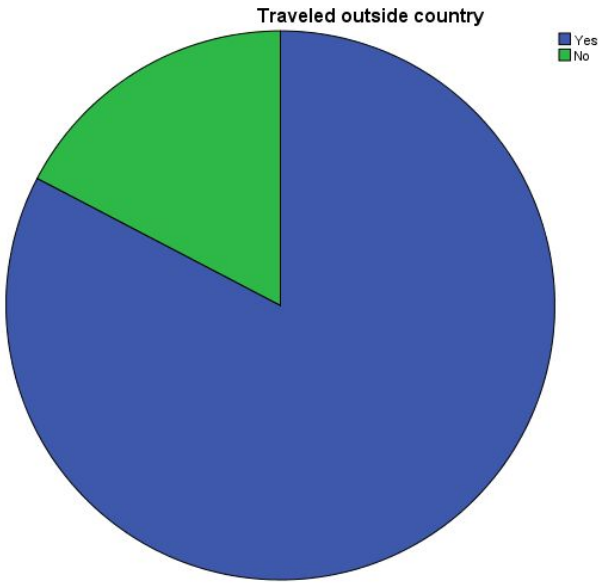
Traveled outside country – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	101	93.5	93.5	93.5
	No	7	6.5	6.5	100.0
	Total	108	100.0	100.0	



Traveled outside country- On paper sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	143	82.7	82.7	82.7
	No	30	17.3	17.3	100.0
	Total	173	100.0	100.0	

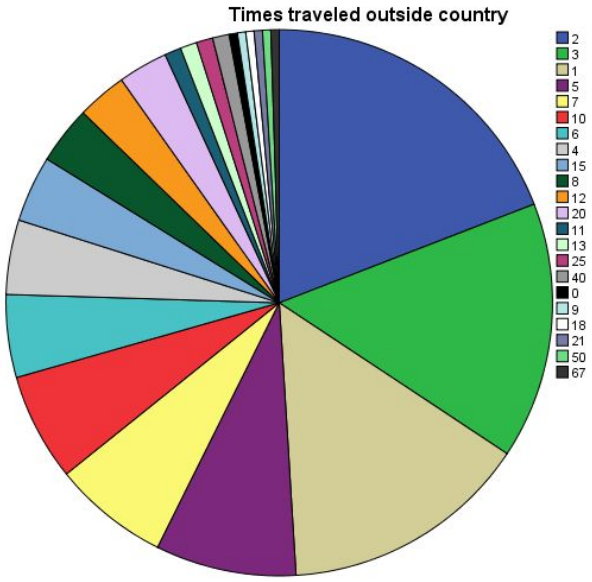


Times traveled outside country

N	Valid	204	81	123
	Missing	77	27	50
Mean		6.48	7.16	6.02
Mode		2	3	2
Std. Deviation		8.065	7.527	8.399
Variance		65.039	56.661	70.549
Minimum		0	1	0
Maximum		67	50	67

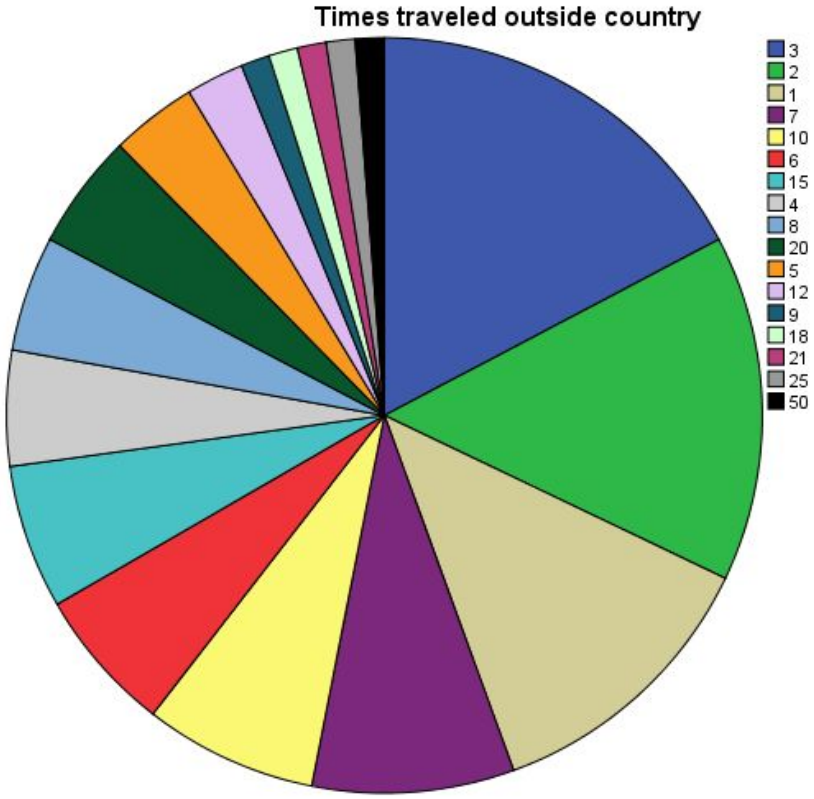
Times traveled outside country – General Sample

		Frequency	Percent	Valid Percent
Valid	2	39	13.9	19.1
	3	31	11.0	15.2
	1	30	10.7	14.7
	5	17	6.0	8.3
	7	14	5.0	6.9
	10	13	4.6	6.4
	6	10	3.6	4.9
	4	9	3.2	4.4
	15	8	2.8	3.9
	8	7	2.5	3.4
	12	6	2.1	2.9
	20	6	2.1	2.9
	11	2	.7	1.0
	13	2	.7	1.0
	25	2	.7	1.0
	40	2	.7	1.0
	0	1	.4	.5
	9	1	.4	.5
	18	1	.4	.5
	21	1	.4	.5
	50	1	.4	.5
	67	1	.4	.5
	Total	204	72.6	100.0
Missing	System	77	27.4	
Total		281	100.0	



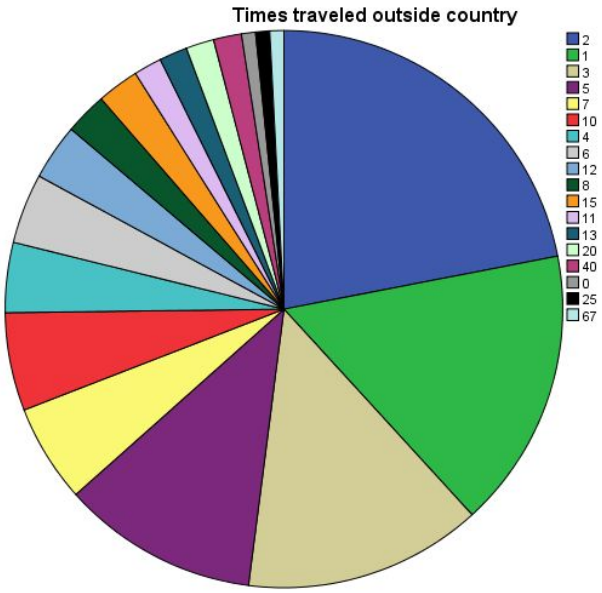
Times traveled outside country – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	14	13.0	17.3	17.3
	2	12	11.1	14.8	32.1
	1	10	9.3	12.3	**44.4**
	7	7	6.5	8.6	53.1
	10	6	5.6	7.4	60.5
	6	5	4.6	6.2	66.7
	15	5	4.6	6.2	72.8
	4	4	3.7	4.9	77.8
	8	4	3.7	4.9	82.7
	20	4	3.7	4.9	87.7
	5	3	2.8	3.7	91.4
	12	2	1.9	2.5	93.8
	9	1	.9	1.2	95.1
	18	1	.9	1.2	96.3
	21	1	.9	1.2	97.5
	25	1	.9	1.2	98.8
	50	1	.9	1.2	100.0
	Total	81	75.0	100.0	
Missing	System	27	25.0		
Total		108	100.0		



Times traveled outside country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	27	15.6	22.0	22.0
	1	20	11.6	16.3	38.2
	3	17	9.8	13.8	**52.0**
	5	14	8.1	11.4	63.4
	7	7	4.0	5.7	69.1
	10	7	4.0	5.7	74.8
	4	5	2.9	4.1	78.9
	6	5	2.9	4.1	82.9
	12	4	2.3	3.3	86.2
	8	3	1.7	2.4	88.6
	15	3	1.7	2.4	91.1
	11	2	1.2	1.6	92.7
	13	2	1.2	1.6	94.3
	20	2	1.2	1.6	95.9
	40	2	1.2	1.6	97.6
	0	1	.6	.8	98.4
	25	1	.6	.8	99.2
	67	1	.6	.8	100.0
	Total	123	71.1	100.0	
Missing	System	50	28.9		
Total		173	100.0		



	Continents					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Continents- General	244	86.8%	37	13.2%	281	100.0%
Continents- Online	101	93.5%	7	6.5%	108	100.0%
Continents- On paper	143	82.7%	30	17.3%	173	100.0%

a. Group

$Continents Frequencies – General Sample

		General		Online		On paper	
		N	Percent	N	Percent	N	Percent
Which continents have you traveled to?[a]	Asia	84	13.8%	40	14.2%	44	13.5%
	Europe	137	**22.6%**	66	**23.5%**	71	**21.8%**
	Africa	39	6.4%	21	7.5%	18	5.5%
	Oceania	20	3.3%	10	3.6%	10	3.1%
	North America	160	**26.4%**	82	**29.2%**	78	**23.9%**
	South America	61	10.0%	24	8.5%	37	11.3%
	Central America and Caribbean	106	**17.5%**	38	**13.5%**	68	**20.9%**
Total			100.0%		100.0%		100.0%

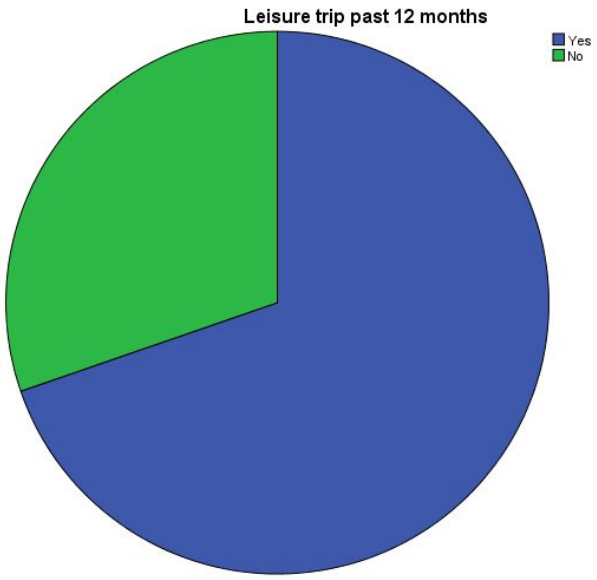
a. Group

Leisure trip past 12 months

N	Valid	274	108	166
	Missing	7	0	7
Percent Yes		69.7	79.6	63.3
Percent No		30.3	20.4	36.7
Mode		1	1	1
Std. Deviation		.460	.405	.484
Variance		.212	.164	.234
Minimum		1	1	1
Maximum		2	2	2

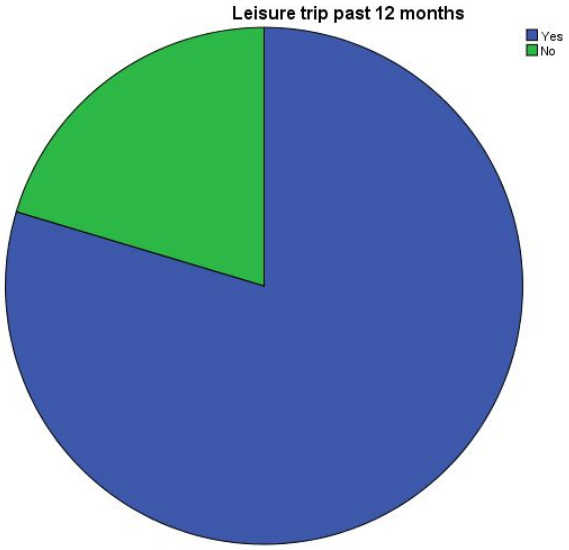
Leisure trip past 12 months – General Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	191	68.0	69.7	69.7
	No	83	29.5	30.3	100.0
	Total	274	97.5	100.0	
Missing	System	7	2.5		
Total		281	100.0		



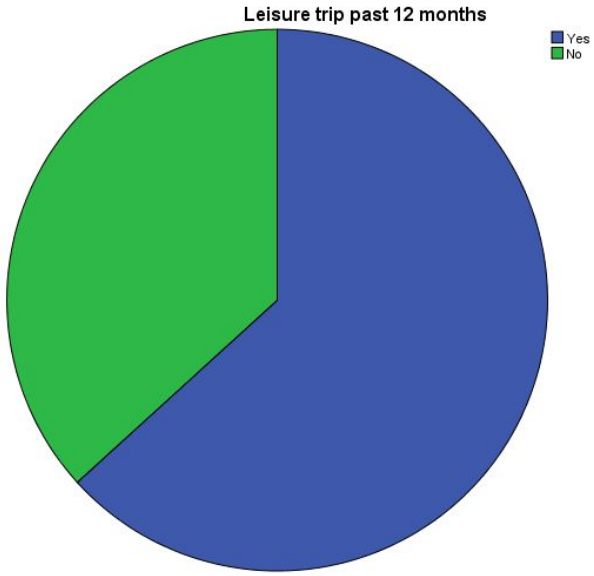
Leisure trip past 12 months – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	86	79.6	79.6	79.6
	No	22	20.4	20.4	100.0
	Total	108	100.0	100.0	



Leisure trip past 12 months – On Paper Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	105	60.7	63.3	63.3
	No	61	35.3	36.7	100.0
	Total	166	96.0	100.0	
Missing	System	7	4.0		
Total		173	100.0		



Statistics – General Sample

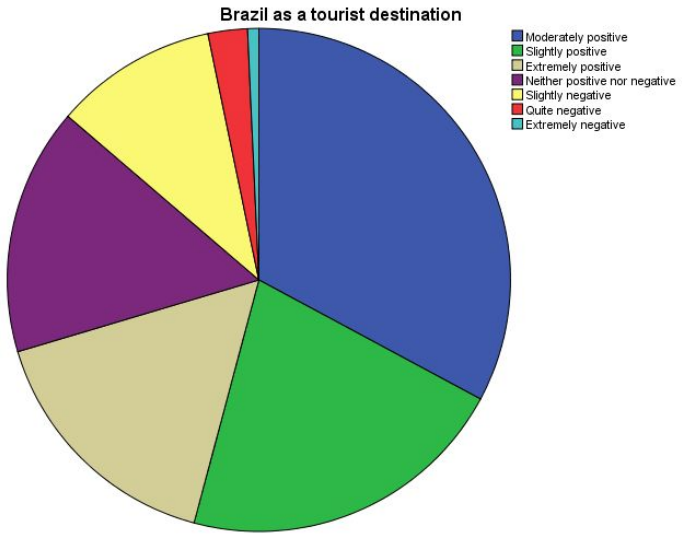
		Brazil as a tourist destination	Rio de Janeiro as the 2016 Olympic Games host city	The Olympic Games
N	Valid	277	276	277
	Missing	4	5	4
Mean		**5.18**	**4.68**	**5.43**
Mode		**6**	**6**	**6**
Std. Deviation		1.369	1.618	1.427
Variance		1.873	2.617	2.036
Minimum		1	1	1
Maximum		7	7	7

Brazil as a tourist destination

N	Valid	277	108	169
	Missing	4	0	4
Mean		**5.18**	**4.85**	**5.39**
Mode		**6**	**6**	**6**
Std. Deviation		1.369	1.570	1.181
Variance		1.873	2.464	1.394
Minimum		1	1	2
Maximum		7	7	7

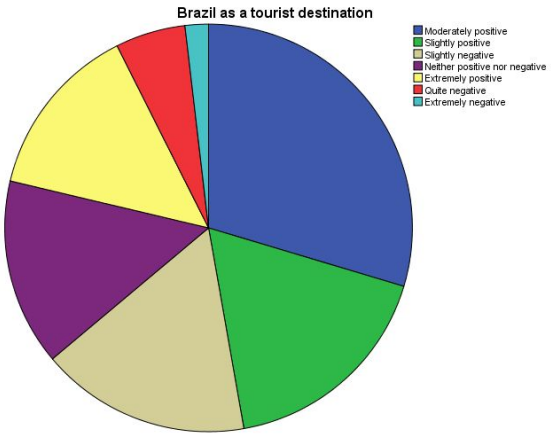
Brazil as a tourist destination- general sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately positive	91	32.4	32.9	32.9
	Slightly positive	59	21.0	21.3	54.2
	Extremely positive	45	16.0	16.2	70.4
	Neither positive nor negative	44	15.7	15.9	86.3
	Slightly negative	29	10.3	10.5	96.8
	Quite negative	7	2.5	2.5	99.3
	Extremely negative	2	.7	.7	100.0
	Total	277	98.6	100.0	
Missing	System	4	1.4		
Total		281	100.0		



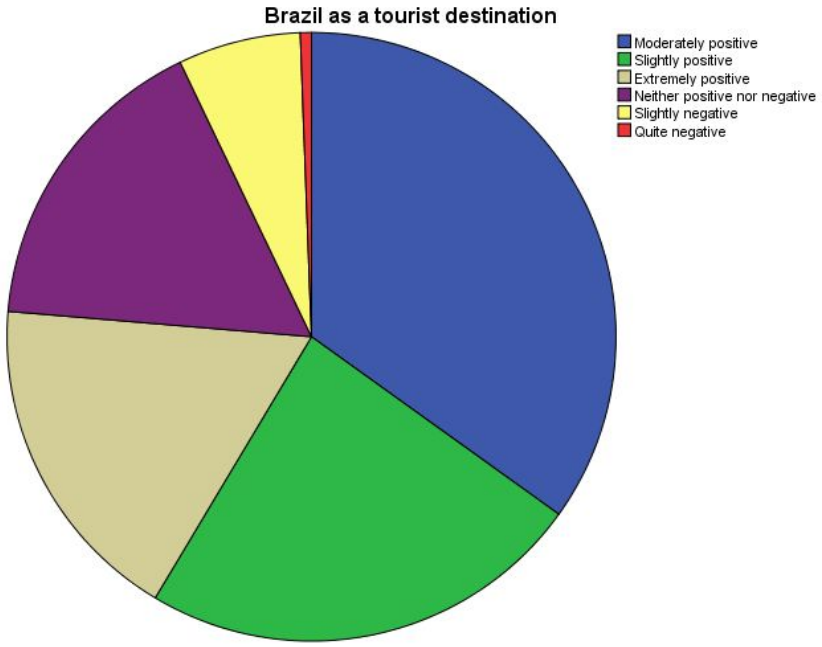
Brazil as a tourist destination – online sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately positive	32	29.6	29.6	29.6
	Slightly positive	19	17.6	17.6	47.2
	Slightly negative	18	16.7	16.7	63.9
	Neither positive nor negative	16	14.8	14.8	78.7
	Extremely positive	15	13.9	13.9	92.6
	Quite negative	6	5.6	5.6	98.1
	Extremely negative	2	1.9	1.9	100.0
	Total	108	100.0	100.0	



Brazil as a tourist destination – On paper sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately positive	59	34.1	34.9	34.9
	Slightly positive	40	23.1	23.7	58.6
	Extremely positive	30	17.3	17.8	76.3
	Neither positive nor negative	28	16.2	16.6	92.9
	Slightly negative	11	6.4	6.5	99.4
	Quite negative	1	.6	.6	100.0
	Total	169	97.7	100.0	
Missing	System	4	2.3		
Total		173	100.0		



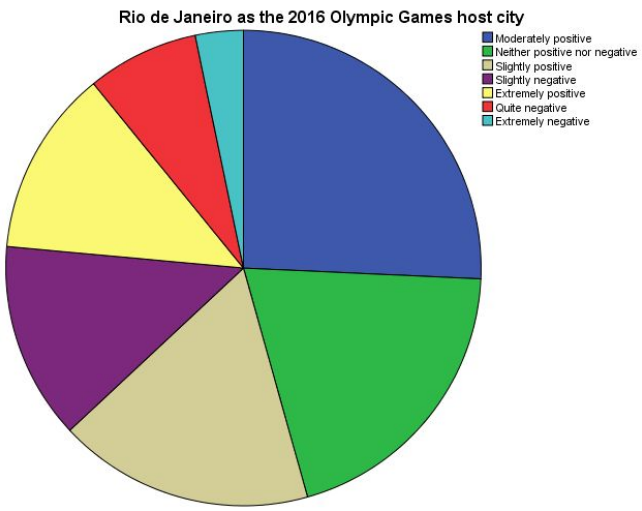
Rio de Janeiro as the 2016

Olympic Games host city

		General	Online	On paper
N	Valid	276	107	169
	Missing	5	1	4
Mean		**4.68**	**4.19**	**5.00**
Mode		**6**	**4**	**6**
Std. Deviation		1.618	1.738	1.456
Variance		2.617	3.021	2.119
Minimum		1	1	1
Maximum		7	7	7

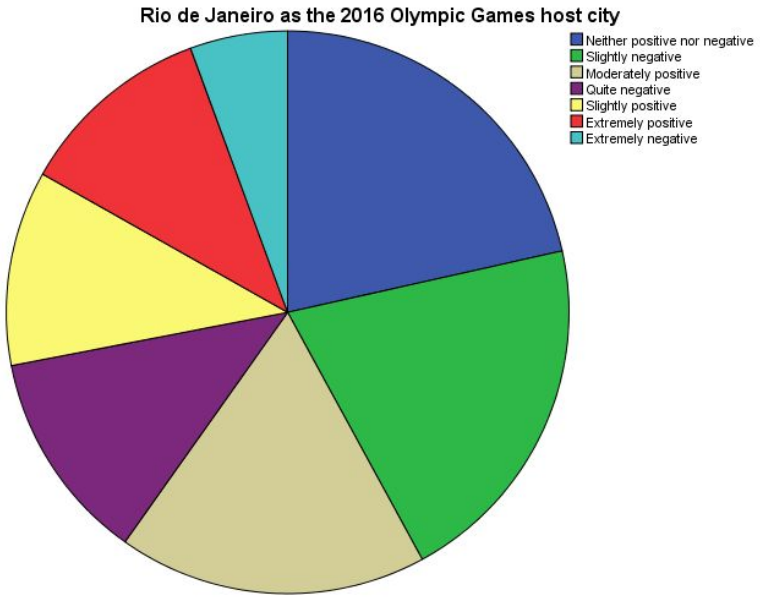
Rio de Janeiro as the 2016 Olympic Games host city – General Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately positive	71	25.3	25.7	25.7
	Neither positive nor negative	55	19.6	19.9	45.7
	Slightly positive	48	17.1	17.4	63.0
	Slightly negative	37	13.2	13.4	76.4
	Extremely positive	35	12.5	12.7	89.1
	Quite negative	21	7.5	7.6	96.7
	Extremely negative	9	3.2	3.3	100.0
	Total	276	98.2	100.0	
Missing	System	5	1.8		
Total		281	100.0		



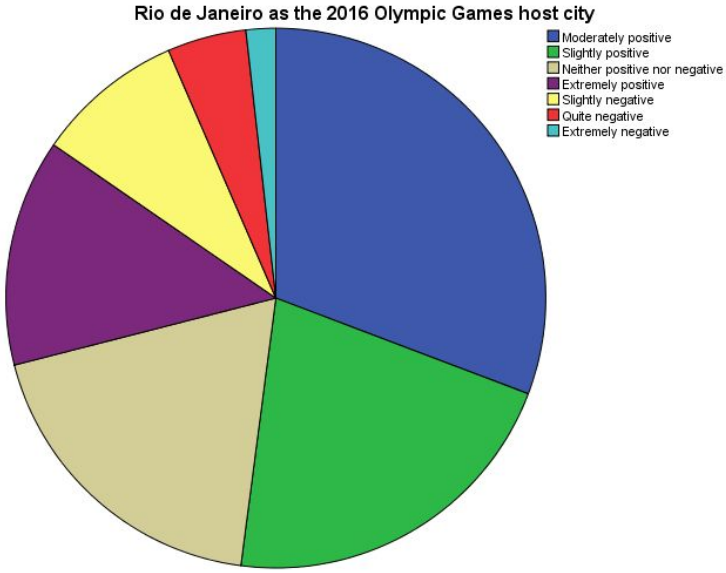
Rio de Janeiro as the 2016 Olympic Games host city – Online Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither positive nor negative	23	21.3	21.5	21.5
	Slightly negative	22	20.4	20.6	42.1
	Moderately positive	19	17.6	17.8	59.8
	Quite negative	13	12.0	12.1	72.0
	Slightly positive	12	11.1	11.2	83.2
	Extremely positive	12	11.1	11.2	94.4
	Extremely negative	6	5.6	5.6	100.0
	Total	107	99.1	100.0	
Missing	System	1	.9		
Total		108	100.0		



Rio de Janeiro as the 2016 Olympic Games host city – On paper sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately positive	52	30.1	30.8	30.8
	Slightly positive	36	20.8	21.3	52.1
	Neither positive nor negative	32	18.5	18.9	71.0
	Extremely positive	23	13.3	13.6	84.6
	Slightly negative	15	8.7	8.9	93.5
	Quite negative	8	4.6	4.7	98.2
	Extremely negative	3	1.7	1.8	100.0
	Total	169	97.7	100.0	
Missing	System	4	2.3		
Total		173	100.0		



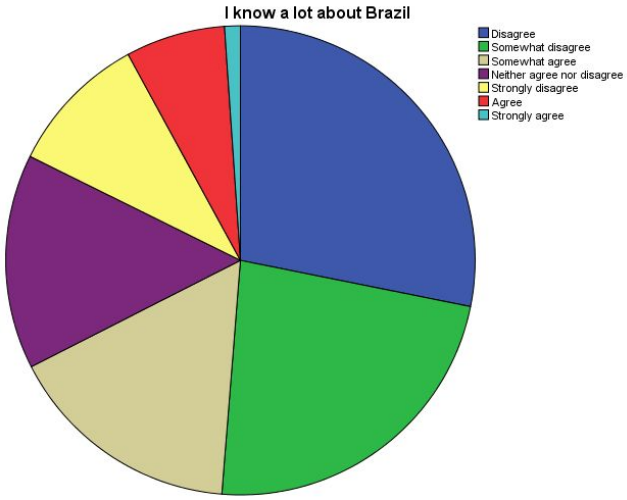
Familiarity

I know a lot about Brazil

		General	Online	On paper
N	Valid	277	108	169
	Missing	4	0	4
Mean		**3.25**	**3.25**	**3.24**
Mode		**2**	**2**	**2**
Std. Deviation		1.486	1.473	1.498
Variance		2.208	2.171	2.244
Minimum		1	1	1
Maximum		7	7	7

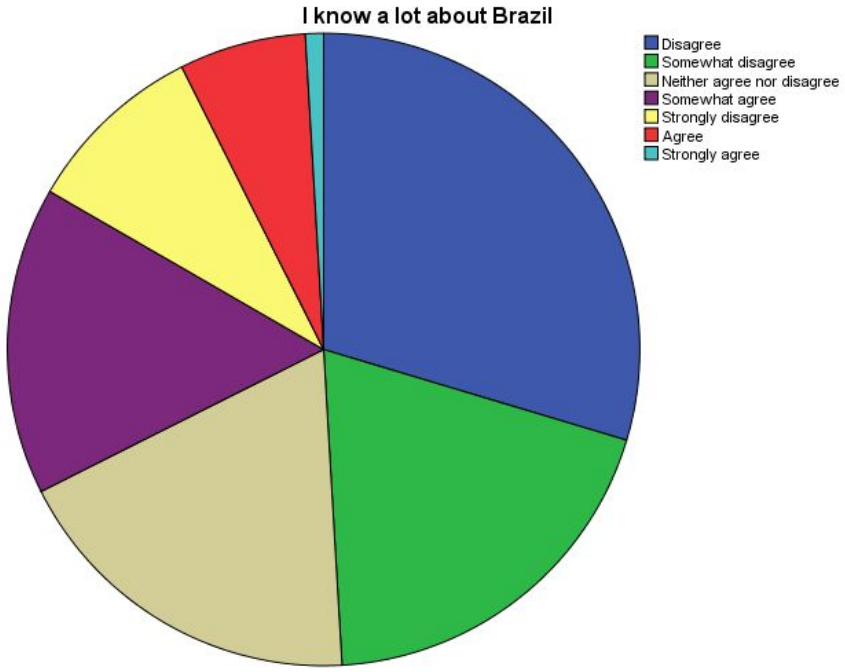
I know a lot about Brazil – General Sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	78	27.8	28.2	28.2
	Somewhat disagree	64	22.8	23.1	51.3
	Somewhat agree	**45**	**16.0**	16.2	67.5
	Neither agree nor disagree	41	14.6	14.8	82.3
	Strongly disagree	27	9.6	9.7	92.1
	Agree	**19**	**6.8**	6.9	98.9
	Strongly agree	**3**	**1.1**	1.1	100.0
	Total	277	98.6	100.0	
Missing	System	4	1.4		
Total		281	100.0		



I know a lot about Brazil – Online Sample

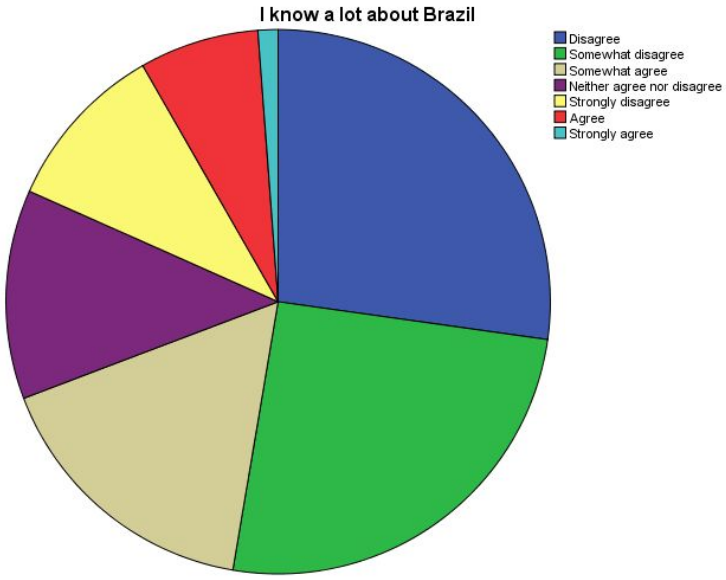
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	32	29.6	29.6	29.6
	Somewhat disagree	21	19.4	19.4	49.1
	Neither agree nor disagree	20	18.5	18.5	67.6
	Somewhat agree	17	**15.7**	15.7	83.3
	Strongly disagree	10	9.3	9.3	92.6
	Agree	7	**6.5**	6.5	99.1
	Strongly agree	1	**.9**	.9	100.0
	Total	108	100.0	100.0	



I know a lot about Brazil – On paper sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	46	26.6	27.2	27.2
	Somewhat disagree	43	24.9	25.4	52.7
	Somewhat agree	28	**16.2**	16.6	69.2
	Neither agree nor disagree	21	12.1	12.4	81.7
	Strongly disagree	17	9.8	10.1	91.7
	Agree	12	**6.9**	7.1	98.8
	Strongly agree	2	**1.2**	1.2	100.0
	Total	169	97.7	100.0	

Missing	System	4	2.3		
Total		173	100.0		



What I know about Brazil is through

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
General Sample	277	98.6%	4	1.4%	281	100.0%
Online Sample	107	99.1%	1	0.9%	108	100.0%
On Paper Sample	170	98.3%	3	1.7%	173	100.0%

a. Group

$Brazil_knowledge Frequencies – General Sample

		Responses	
		N	Percent
What I know about Brazil is through[a]	Newspaper/Magazine	134	17.4%
	Direct mail	5	0.7%
	Movies/TV program	192	25.0%
	Social media	178	23.1%
	I have already visited	27	3.5%
	Friend/Family	140	18.2%
	Official tourism website	23	3.0%
	Radio Ad	2	0.3%
	TV commercial	68	8.8%
Total			100.0%

a. Group

$Brazil_Knowledge Frequencies – Online Sample

		Responses	
		N	Percent
What I know about Brazil is through[a]	Newspaper/Magazine	61	19.1%
	Direct mail	2	0.6%
	Movies/TV program	78	24.4%
	Social media	71	22.2%
	I have already visited	10	3.1%
	Friend/Family	50	15.6%
	Official tourism website	10	3.1%
	Radio Ad	2	0.6%
	TV commercial	36	11.3%

Total		100.0%

a. Group

$Brazil_Knowledge Frequencies On paper sample

		Responses	
		N	Percent
What I know about Brazil is through[a]	Newspaper/Magazine	73	16.3%
	Direct mail	3	0.7%
	Movies/TV program	114	25.4%
	Social media	107	23.8%
	I have already visited	17	3.8%
	Friend/Family	90	20.0%
	Official tourism website	13	2.9%
	TV commercial	32	7.1%
Total			100.0%

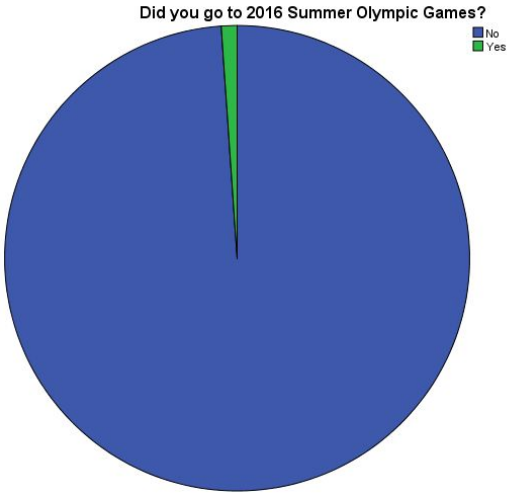
a. Group

Statistics

Did you go to 2016 Summer Olympic Games?

N	Valid	274	108	166
	Missing	7	0	7
No Valid Percent		98.9	97.2	100.0
Yes Valid Percent		1.1	2.8	
Mode		2	2	2
Std. Deviation		.104	.165	.000
Variance		.011	.027	.000
Minimum		1	1	2

Maximum	2	2	2



Rio de Janeiro host city Affective Image – General Sample

		Reliable	Friendly	Pleasant	Exciting	Stressful	Relaxing	Terrifying	Hectic
N	Valid	274	275	275	273	273	274	272	272
	Missing	7	6	6	8	8	7	9	9
Mean		4.27	5.09	4.99	5.47	4.55	4.49	3.86	4.60
Mode		4	6	5	6	4	4	4	4
Std. Deviation		1.515	1.292	1.264	1.118	1.308	1.697	2.430	1.352
Variance		2.295	1.670	1.598	1.250	1.712	2.881	5.907	1.828
Minimum		1	1	1	1	1	1	1	1
Maximum		7	7	7	7	7	23	36	7

Rio de Janeiro host city Affective Image – Online Sample

		Reliable	Friendly	Pleasant	Exciting	Stressful	Relaxing	Terrifying	Hectic
N	Valid	107	107	107	107	107	107	106	106
	Missing	1	1	1	1	1	1	2	2
Mean		3.80	4.84	4.70	5.24	4.53	4.24	3.74	4.61
Mode		4	6	5	6	4	4	4	4
Std. Deviation		1.545	1.493	1.429	1.196	1.376	1.331	1.495	1.299
Variance		2.386	2.229	2.042	1.431	1.893	1.771	2.234	1.687
Minimum		1	1	1	1	1	1	1	1
Maximum		7	7	7	7	7	7	7	7

Rio de Janeiro host city Affective Image – On Paper Sample

		Reliable	Friendly	Pleasant	Exciting	Stressful	Relaxing	Terrifying	Hectic
N	Valid	167	168	168	166	166	167	166	166
	Missing	6	5	5	7	7	6	7	7
Mean		4.57	5.26	5.17	5.62	4.56	4.64	3.94	4.59
Mode		4	6	5	6	4	4	4	4
Std. Deviation		1.420	1.121	1.114	1.042	1.267	1.883	2.875	1.389
Variance		2.017	1.257	1.242	1.085	1.605	3.545	8.263	1.928
Minimum		1	2	2	2	1	2	1	1
Maximum		7	7	7	7	7	23	36	7

Rio de Janeiro host city Cognitive Image – General Sample

		Values hygiene and cleanliness	Good infrastructure	Safe	Good options for nightlife and entertainment	Adequate accommodation	Attractive local cuisine	Interesting Historical and cultural attractions	Beautiful scenery and natural attractions	Good value for money	Environment preserved	Good climate
N	Valid	273	274	274	272	274	274	274	273	271	274	274
	Missing	8	7	7	9	7	7	7	8	10	7	7
Mean		**4.05**	**4.10**	**3.99**	**5.32**	**4.84**	**5.41**	**5.56**	**5.68**	**4.96**	**4.58**	**5.39**
Mode		4	4	4	6	4	6	6	6	4	4	6
Std. Deviation		1.417	1.499	1.492	1.293	1.289	1.165	1.132	1.086	1.192	1.428	1.166
Variance		2.008	2.246	2.227	1.672	1.662	1.357	1.280	1.180	1.420	2.039	1.360
Minimum		1	1	1	2	1	2	2	3	1	1	2
Maximum		7	7	7	7	7	7	7	7	7	7	7

Rio de Janeiro host city Cognitive Image – Online Sample

		Values hygiene and cleanliness	Good infrastructure	Safe	Good options for nightlife and entertainment	Adequate accommodation	Attractive local cuisine	Interesting Historical and cultural attractions	Beautiful scenery and natural attractions	Good value for money	Environment preserved	Good climate
N	Valid	106	106	106	105	106	106	106	105	106	106	106
	Missing	2	2	2	3	2	2	2	3	2	2	2
Mean		**3.71**	**3.74**	**3.52**	**5.13**	**4.58**	**5.18**	**5.33**	**5.50**	**4.79**	**4.21**	**5.13**
Mode		4	3	3	6	4	6	6	6	4	4	6
Std. Deviation		1.454	1.476	1.442	1.428	1.359	1.225	1.136	1.102	1.255	1.491	1.180
Variance		2.114	2.177	2.081	2.040	1.847	1.501	1.290	1.214	1.576	2.223	1.392
Minimum		1	1	1	2	1	2	2	3	1	1	2
Maximum		7	7	7	7	7	7	7	7	7	7	7

Rio de Janeiro host city Cognitive Image – On paper Sample

		Values hygiene and cleanliness	Good infrastructure	Safe	Good options for nightlife and entertainment	Adequate accommodation	Attractive local cuisine	Interesting Historical and cultural attractions	Beautiful scenery and natural attractions	Good value for money	Environment preserved	Good climate
N	Valid	167	168	168	167	168	168	168	168	165	168	168
	Missing	6	5	5	6	5	5	5	5	8	5	5
Mean		**4.28**	**4.33**	**4.28**	**5.44**	**5.00**	**5.56**	**5.70**	**5.80**	**5.06**	**4.82**	**5.55**
Mode		4	4	4	6	4	6	6	6	4	4	6
Std. Deviation		1.352	1.471	1.452	1.190	1.219	1.104	1.108	1.064	1.141	1.337	1.131
Variance		1.827	2.164	2.107	1.416	1.485	1.218	1.228	1.132	1.301	1.788	1.279
Minimum		1	1	1	2	2	3	3	3	2	1	2
Maximum		7	7	7	7	7	7	7	7	7	7	7

[redacted] Institutional Review Board

[redacted]

Behavioral/Non Medical Institutional Review Board
FWA00005790

[redacted]

DATE: 4/19/2017

TO: [redacted]

FROM: [redacted]
Chair IRB-02

IRB#: **IRB201700913**

TITLE: RELATIONS BETWEEN IMAGE OF HOST CITY AND TOURIST DESTINATION: A STUDY OF 2016 OLYMPIC GAMES IN BRAZIL

Approved as Exempt

You have received IRB approval to conduct the above-listed research project. Approval of this project was granted on 4/19/2017 by IRB-02. This study is approved as exempt because it poses minimal risk and is approved under the following exempt category/categories:

2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures, or the observation of public behavior, so long as confidentiality is maintained. If both of the following are true, exempt status can not be granted: (a) Information obtained is recorded in such a manner that the subject can be identified, directly or through identifiers linked to the subject, and (b) Subject's responses, if known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability or reputation.

Special notes to Investigator (if applicable)::

In the myIRB system, exempt approved studies will not have an approval stamp on the consents, fliers, emails, etc. However, the documents reviewed are the ones to be used. Therefore, under ATTACHMENTS you should find the document that has been

reviewed and approved. If you need to modify the document(s) in any manner then you'd need to submit to our office for review and approval prior to implementation.

Principal Investigator Responsibilities:

The PI is responsible for the conduct of the study.

- Using currently approved consent form to enroll subjects (if applicable)
- Renewing your study before expiration
- Obtaining approval for revisions before implementation
- Reporting Adverse Events
- Retention of Research Records
- Obtaining approval to conduct research at the VA
- Notifying other parties about this project's approval status

Should the nature of the study change or you need to revise the protocol in any manner please contact this office prior to implementation.

Study Team:

[redacted] Co-Investigator

[redacted]

An Equal Opportunity Institution

Brazil and Rio de Janeiro Destination Image

My name is XXXXXXXXXXXX, I'm a visiting research scholar at the Department of xxxxxxxxx at University of XXXXXXXXXXXXXXXX. I'm conducting a research study that examines your perceptions about Brazil and Rio de Janeiro as tourist destinations, especially considering the 2016 Olympic Games. This study can assist this country with destination image development strategies. The study involves answering an online questionnaire that will take about 10 minutes to complete.

The survey is voluntary, but your input is important. There are no correct or incorrect answers in the survey, so please express your true feelings. Your identity will not be known to us and your responses will be anonymous. By clicking on the link you provide your consent to participate in the survey. Your participation in this study is voluntary and you have the right not to answer any questions. There is no penalty for not participating and you are free to withdraw anytime without penalty. There are no risks associated with participation in this study. There is no compensation for participating in the study. Only the researchers will have access to the information we collect online. There is a minimal risk that security of any online data may be breached, but since no identifying information will be collected, and the online host (Qualtrics) uses several forms of encryption other protections, it is unlikely that a security breach of the online data will result in any adverse consequence for you. If you have any questions concerning this study, please contact: XXXXXXXXXXXXXXXXXXXXXXXXX

Sincerely,

XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Visiting Research Scholar- University of XXXXXXXXX

1. Have you ever traveled outside your country (for any reason)?

○ Yes ○ No

If YES, please answer the two next questions if NO, go to question 4:

2. How many times have you traveled outside your country? _____

3. Did you go to 2016 Summer Olympic Games?

○ Yes ○ No

Even if you didn't go to the 2016 Olympic Games, based on your perception and the things that you know about…

4. What is your overall image about:

	Extremely negative	Quite negative	Slightly negative	Neither positive nor negative	Slightly positive	Moderately positive	Extremely positive
Rio de Janeiro as the 2016 Olympic Games host city	○	○	○	○	○	○	○
Brazil as a tourist destination	○	○	○	○	○	○	○

5. Even if you didn't go to the 2016 Olympic Games, based on your perception and the things that you know about, do you think that Rio de Janeiro as an Olympic Games host city...

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
was reliable	○	○	○	○	○	○	○
was friendly	○	○	○	○	○	○	○
was pleasant	○	○	○	○	○	○	○
was exciting	○	○	○	○	○	○	○
was stressful	○	○	○	○	○	○	○
was relaxing	○	○	○	○	○	○	○
was terrifying	○	○	○	○	○	○	○
was hectic	○	○	○	○	○	○	○
valued hygiene and cleanliness	○	○	○	○	○	○	○
had good infrastructure	○	○	○	○	○	○	○
was safe	○	○	○	○	○	○	○
had good options for nightlife and entertainment	○	○	○	○	○	○	○
offered adequate accommodation	○	○	○	○	○	○	○
offered attractive local cuisine	○	○	○	○	○	○	○
offered interesting historical and cultural attractions	○	○	○	○	○	○	○
offered beautiful scenery and natural attractions	○	○	○	○	○	○	○
offered good value for money	○	○	○	○	○	○	○
had environment preserved	○	○	○	○	○	○	○
has a good climate	○	○	○	○	○	○	○

7. What I know about Brazil is through (all that apply):

☐ Newspaper/ Magazine ☐ Direct mail ☐ Movies/ TV program ☐ Social media ☐ I have already visited

☐ Friend/family ☐ Official tourism website ☐ Radio Ad ☐ TV Commercial

8. Are you:

○ Male ○ Female

9. What is your country of birth?_____

10. What year were you born?_____

11. What is your 2016 total annual household income in US dollar?

○ Less than $20,000 ○ $20,000 - $39,999 ○ $40,000 - $59,999 ○ $60,000 - $79,999 ○ $80,000 - $99,999 ○ $100,000 or more

12. What is the highest level of education you have completed:

○ Less than High School ○ High school graduate ○ Technical College ○ Some college (no degree) ○ University ○ Post Graduate

13. What is your ethnic background?

○ White	○ Black or African American	○ Asian	○ Hispanic/ Latino	○ Pacific Islander	○ Other (Please specify) _____

Thank you for your participation! Please click the SUBMIT BUTTON BELOW TO RECORD YOUR OPINIONS!