

**Online and Offline Information Sources Used By International Tourists and  
Their Effectiveness in Constructing Destination Attributes: A Case Study of Bali**

By

**PARDEDE, Elfridanche Widya S.**

**THESIS**

Submitted to

KDI School of Public Policy and Management

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For the Degree of

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Committee in charge:

Professor Lee, Junesoo, Supervisor

Junesoo Lee

Professor Lee, Taejun

Taejun Lee

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## **ABSTRACT**

### **ONLINE AND OFFLINE INFORMATION SOURCES USED BY INTERNATIONAL TOURISTS AND THEIR EFFECTIVENESS IN CONSTRUCTING DESTINATION ATTRIBUTES: A CASE STUDY OF BALI**

**By**

**PARDEDE, Elfridanche Widya Sundari**

Tourism is an important industry globally and a critical industry for Indonesia. Despite the importance of tourism to Indonesia's economy, there is a general view that the industry has untapped potential. Given Indonesia's prodigious tourism resources and strategic geographical location, it fails to draw the highest possible tourist numbers and receipts. Government has implemented some ambitious and strategic efforts to boost the number of foreign tourists to Indonesia. However, the country still lags behind its regional competitors in number of foreign tourists and receipts. Therefore, this study investigates information sources, both online and offline, as the lifeblood of the travel and tourism industry. Using factor analysis, information source attributes were examined to discover the rationale behind the selection of sources by international tourists. This paper also analyzed which sources used and constructed destination attributes, in acknowledgement of the significance of a destination image as a factor of travel decision making. This research focuses on international tourists and uses Bali as the case study. Results indicate that international tourists use both online and offline sources. The findings also indicate that the main reasons for the selection of sources are the interactivity and user-generated content of sources. The results of this research can be used in tourism policy and marketing strategies by central and local governments as well as tourism communities.

**Key words:** Information source, tourism, online, offline, attribute, tourism policy, marketing strategy.

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## **List of Abbreviations**

ASEAN	Association of Southeast Asian Nations
APEC	Asia-Pacific Economic Cooperation
BBC	British Broadcasting Corporation
CNN	Cable News Network
Fam Trip	Familiarization Trip
GDP	Gross domestic product
GRDP	Gross regional domestic product
IRTS	International Recommendations for Tourism Statistics
ITB Berlin	Internationale Tourismus-Börse Berlin
TV	Television
WEF	World Economic Forum
WTTC	World Travel and Tourism Council

## **I. Introduction**

### ***1.1. Tourism in Indonesia: Recent Developments and Challenges***

Tourism is an important industry globally and a critical industry for Indonesia. The United Nations World Tourism Organization (UNWTO) and World Trade Organization (WTO) reported that tourism was the world's third largest export category, after automotive and food industries (2019). Tourism matters as an economic driver, employment generator and inclusion promoter (UNWTO, 2018). Tourism also matters for Indonesia. It played a key role as one of the top 5 sources of foreign currency in 2017. In addition, it generated 12.3% of total employment in 2016 (Ollivaud & Haxton, 2019).

Despite the importance of tourism to Indonesia's economy, there is a general view that the industry has untapped potential. The World Bank (2014) said given Indonesia's prodigious tourism resources and stunning natural environment, named as the world's largest archipelago of around 17,500 islands, has around 40% of APEC's biodiversity plus strategic geographical location, it fails to draw the highest tourist numbers and receipts compared to its regional peers (Indonesia Investments, 2014). While Indonesia attracted 10.4 million foreign tourists in 2015, Malaysia welcomed 25.7 million tourists and Thailand 29.9 million international tourists (ASEAN Secretariat, 2017). In terms of GDP contribution, the UNWTO and World Travel & Tourism Council (as cited by WEF, 2017) reported Indonesia's tourism industry only contributed 3.3% to the nation's GDP in 2016, which is relatively low compared to Thailand 9.3%. In other words, the industry is growing but not achieving its potential (Indonesia Investments, 2014). Former Minister of Tourism of Indonesia, Arief Yahya, recognized problems within marketing, infrastructure and education (Bali Discovery, 2014).

Realizing the tremendous power of tourism as a driver to achieve faster and more inclusive growth, the new President of Indonesia, Joko Widodo, has set tourism as the government's top priority since 2014 (Ollivaud & Haxton, 2019). One of the most ambitious efforts is investing massive infrastructure in 10 prioritised destinations which are projected to be the 10 New Balis. Also, there are other various strategies that have been implemented to boost the number of foreign tourists that visit Indonesia. From stipulating Presidential Regulation No. 21/2016 on Exemptions of Visit Visa to citizens of 174 countries, doing FAM Trips, sales missions, hot deals, Customer Data Management (CDM) up to promoting country branding- 'Wonderful Indonesia'- in some major countries such as the UK, US, France and many others (Ministry of Tourism, 2018).

Those initiatives appear to have been fruitful. Renowned UK publisher, Rough Guides in 2019 included Indonesia at No. 6 for Most Beautiful Country in the World and No.1 the most beautiful country in Asia (as reported by the Jakarta Post, 2019). Indonesia's competitiveness as a tourist destination improved from 70th in 2013 to 40th in 2019. However, the campaigns' effectiveness in attracting tourists ranks only 51st, as opposed to 7th for Malaysia and 20th for Thailand (WEF, 2019).

The question is how a country voted the most beautiful in Asia, after all the efforts above, still lags behind its regional competitors in number of foreign tourists and receipts. This study provides solutions and evidence-based policy implications for tourism stakeholders, mainly Indonesia's central and local governments as well as the tourism communities.

## ***1.2. Untouched Solution: Investigating Tourism Information Sources (TIS)***

A destination's image leads to travel decision-making and thus determines the fundamental role in the success of a tourist destination (Beerli and Martin, 2004). There are two factors that determine destination's image: personal factors and information sources (Baloglu & McCleary, 1999). Regarding personal factors, there have been many long-standing marketing strategies implemented by Indonesian authorities, such as market segmentation. However, the result has yet to be significant in bringing foreign tourists to Indonesia.

Meanwhile, another factor that has not been taken care of rigorously is TIS. In fact, information is one of the most influential factors when forming travel decisions (Maser & Weiermair, 1998). Though the numbers show an increase in international visitors to Indonesia as a direct effect of the campaigns, the results need to be examined more cautiously. Lately the Indonesian government has put more efforts into country branding promotion by BAS (Branding, Advertising and Sales) and using global media coverage such as the Discovery Channel, National Geographic, BBC, CNN International, et cetera as well as participating in international events like ITB Berlin and WTM London, and also supported the TV series, *The Amazing Race Asia* (2016). The figures compared to neighboring countries such as Malaysia and Singapore, show that advertising a country as a tourism destination requires much more than allocating ambitious amounts of budgets (Rudenko & P. Tedjakusuma, 2018).

Tourism is an information-intensive industry (Bieger and Laesser, 2004). Information is the vital force of the industry because the image of a destination is critical for travel decision making, and is influenced by various information sources (Echtner & Ritchie, 1991). Tourists' knowledge, preference and decision of tourism depend on the information available to and used by them (Goeldner & Ritchie, 2009).

Understanding how tourists acquire knowledge and why a tourist use particular TIS are of great importance to developing effective marketing communication strategies or campaigns (López & Sicilia, 2011). The central role of any marketing programs is to provide the information needed by the potential travelers visibly and accessibly (Xiang and Pan, 2011). Therefore, this study is essential to identify the information sources consulted by tourists to get the knowledge they required.

Previous studies mostly agreed that the internet has evolved to become a prime source of tourist information guiding purchasing decisions. Information Communication Technologies (ICTs) have been changing the entire tourism industry (Werthner and Klein, 1999; Buhalis & Law, 2008; Crnojevac et al., 2010).

Despite this, tourists usually mix the channels they use to look for more information and data comparison (Snepenger, 1990; Zeithaml, 1988). Though much research specifically supports online TIS, other research shows that the internet cannot be the sole source for distributing tourism information (Gronflaten, 2009). The information can be collected from different information sources, both online and offline through handbooks and word-of-mouth referrals (Pearce & Schott, 2005; Gronflaten, 2009).

However, there are some gaps in the previous studies. First, most of the preceding studies heavily discuss online TIS. It is undeniable that the internet has changed tourist behavior in information searching (Crnojevac et al., 2010). However, it is crucial to get a thorough understanding of information sources both offline and online in order to find the most effective TIS to improve marketing communication with international tourism consumers (Dey and Sarma, 2010; López & Sicilia, 2011).

Secondly, most of the previous studies did not determine a specific target population. In this study, the targeted population is international tourists. The sample

taken in this research includes only international tourists that visit Bali, as the initial purpose of the study is to increase the number of international tourists and receipts. Also, there are different tendencies between a foreign and domestic vacation (López & Sicilia, 2011). A foreign vacation, by and large, requires a more extensive decision-making process compared to a domestic vacation, thus making tourists' approaches to information searching and sources different (Bargeman and Van der Poel, 2006).

By using a specific sample category and more comprehensive scope of information sources studied, this research can strengthen and complement the results from preceding studies of tourism information sources. This study does not intend to emphasize debates about preferences and differences between offline and online TIS.

### ***1.3. Research Questions***

Based on the objectives of the research and acknowledging the above-mentioned facts, related literature and preceding findings, thus following are the research questions:

- 1) What are the tourism information sources chosen and used by the international tourists to get information of the destination they want to visit?
- 2) What are the reasons behind the selections of tourism information sources by international tourists?
- 3) Have the tourism information sources that are used by international tourists effectively constructed destination attributes/images?

To answer those research questions, the paper shall begin by reviewing the literature and proposing a set of hypotheses. It will then explain the methodology used and the analysis conducted. The paper concludes by presenting the implications of this research.

## II. Literature Review

This study will synthesize, analyze and evaluate the literature about TIS to show why the research questions proposed need to be addressed. It will discuss TIS on the whole, examine and identify the characteristics of each online and offline TIS, and discuss the attributes of information sources and tourism destination. Moreover, this study also gives some background about Bali as the case study and some definitions of international tourists and effectiveness in order to give clear understanding of the concept used in this study and scope of the study. Finally, this section will propose a research design and a set of hypotheses.

### 2.1. *Tourism Information Sources (TIS)*

It is a widely accepted theory that information sources are the key to destination image creation. According to Baloglu & McCleary (1999), destination image is determined by two factors, personal factors and stimulus factors. Personal factors are related to characteristics of tourists which include psychological and social elements. Stimulus factors are external factors related with resources of information. This study will focus on the information resources because information is the vital part to form destination image and decision-making process (Gartner, 1993; Dey & Sarma, 2010). In line with that, the establishment of a destination's prior-visit image for tourists is based on the information sources they apply (Frías, Rodríguez, Castañeda, Sabiote, and Buhalis, 2011).

As with tangible products, information plays critical importance for intangible products/services. Travel products that are intangible are associated, *ceteris paribus*, with higher risks (Murray as cited by March and Woodside, 2005). Thus, such products require information sources for risk avoidance and uncertainty avoidance on the tourists' side (V. G. Wilson, 2014). In addition, the functions of tourism-related information are

to trigger people think positively of having a holiday by raising expectations and building imaginations, to assist in choosing options and increase recognition of the tourism destination, and to justify the travelling decision (Van Raaij and Francken, 1984). Moreover, understanding which tourists' information sources are used is essential for developing marketing strategy and service delivery on marketer's side (Hamidizadeh et al., 2016).

To the best of my knowledge there has been little research conducted that quantitatively analyzed the variables included in this paper. Especially in Indonesia, there were few studies on TIS. Three existing studies from Indonesian scholars explained this issue from different perspectives. Suroto evaluated the usage of websites in supporting tourism promotion and marketing. This study was conducted from an IT perspective using mBSC (modified Balanced Scorecard) and attempted to find out the impact of websites' performance on tourism business (Adi, 2014). Sumaco and Richardson analyzed how international tourists know about the "Visit Indonesia 2008" branding campaign, and the result was that most of the international tourists saw the campaign from websites (Sumaco & Richardson, 2011). And the last study did by Fatanti and Suyadnya discussed specifically about Instagram's role as a social media for online photography in providing tourism information, and furthermore how its role shaped tourism destination brands (Fatanti & Suyadnya, 2015).

Though TIS' importance and theory have been established, which type of TIS, online or offline, is most preferred and effective for tourists is still debated. Same as the studies of Indonesian scholars above, there are more studies on online TIS rather than offline TIS and most of them agreed that the internet has become the main source of information (Buhalis & Law, 2008; Pan & Fesenmaier, 2006). It is beyond doubt that the continued growth of internet users has resulted in the World Wide Web

becoming the indispensable source for people searching to use tourist information. Moreover, Wang, Head, and Arthur pointed out the benefits of online tourism information searches include the relatively affordable, ease to compare products, interactivity, virtual community establishment, and 24/7 accessibility (as cited in C. I. Ho et al., 2012).

However, some studies argued that tourists use both TIS, online and offline (Crnojevac et al., 2010; Del Chiappa & Balboni, 2019; Ho et al., 2012; Llodrà-Riera et al., 2015; López & Sicilia, 2011). Therefore, this study intends to investigate which TIS are used specifically by international tourists. This study wants to evaluate both types. If it is true that online TIS prevail like what most previous studies indicated, then it follows that the cohort of online TIS would dominate the results.

In addition to the sources, this study also intends to investigate deeper to uncover the reasons behind international tourists' selection of the TIS. Further, this paper investigates the effectiveness of TIS, both online and offline, to construct the attributes of a destination.

## **2.2. *Online TIS***

Research on the influence of Information and Communication Technologies (ICTs) in the tourism sector has been developed significantly over the past three decades. There has been heavy interest from researchers toward exploring tourist online TIS behavior (Mariani et al., 2016). Research in the tourism sector has proved that online reviews affect hotel room sales (Ye, Law, & Gu, 2009). As an example of the power of online TIS, eight out of ten travelers said that comments on travel forums are an important element of the decision-making process according to Skyscanner's 2012 Travel Trends survey, 52% of Facebook users admit that checking friends' vacation pictures encouraged them to go to that certain destination (Tourism Economics, 2013).

However, many of the existing studies are limited to discussing use of only one type of online TIS. There is little study on categorizing a variety of both online and offline TIS and then comparing and examining the attributes of those sources (No & Kim, 2015a). Online TIS that most studied were social media, including search engines and web blogs. But, to get the answer of which TIS are used by international tourists, this study uses a comprehensive and a broad variety of sources both for online and offline. For online TIS, this paper will evaluate personal blogs, company, government/public and accommodation websites (e.g. Airbnb), social media or social networking, search engines, mobile phone applications, photo (e.g. Instagram, Flickr) and video sharing (e.g. Youtube), recommendation platforms (Lonely Planet, TripAdvisor), tourist resources and activities portals (e.g. wikitravel), and online maps (e.g. maps.google).

Social media is the biggest source since it covers most of the online TIS. Kaplan and Haenlein (2010) identified six types of social media: social networking websites (i.e. Facebook, CouchSurfing, TripConnect, WAYN, Bluenity, iTourist, BeWelcome, Flight Club, Dopplr, YowTRIP), blogs, content communities (i.e. YouTube, Flickr, Scrib, Matador, TravBuddy, 43Places), collaborative projects (i.e. Wikipedia, Wikitravel, World66), virtual social worlds (i.e. Sosauce, Trayle, Triporama, Second Life, Virtual Tourist), and virtual game worlds (i.e. World of Warcraft). Still, that taxonomy does not include other types of social media such as microblogs (i.e. Twitter, Travellerspoint), consumer review & rating websites (i.e. Real Travel, TripAdvisor, BootsAll, Tripwolf) and internet forums (i.e. ThornTree, Fodor's Travel Talk, FlayerTalk). Social media another different form is poll sites (e.g. Digg) (Munar & Jacobsen, 2013).

Social media is applied through all stages of the tourists' decision-making process (Sigala et al., 2012). Social media is becoming more and more crucial to travel planning, functioning as crucial information sources and providing access to other tourists' experiences (Chung & Buhalis, 2008). Beyond that, social media sustain storytelling, on a '24/7' basis to massive forum, and provides a sense of belonging into virtual travel societies (Gretzel, Fesenmaier, & O'Leary, 2006).

The photo and video sharing era are booming with search engines and YouTube as top online sources of inspiration. Online travel videos are influential in early stages initiation (Ipsos MediaCT, 2014). The internet permits users to distribute their opinions and travel experiences with others, and means everyone can be a content creator and information is no longer managed solely by tourism companies, but by ordinary users as well, through social media sites that promote consumer-generated content (CGC) such as blogs, pictures, videos, wikis, social networks, virtual communities, etc. (Hernández-Méndez et al., 2015a).

Over the last 30 years ICTs on the economy have totally changed the human activities (Mariani et al., 2016). The digital age and internet have made relationships between things (products, services, places, etc.) and people possible through connected technology and various platforms. The technology revolution has transformed the way people communicate or live their lives.

However, does this transformation change the basic need or nature of people, especially toward information search? During information search processes, tourists need other travelers' experiences as a means to increase their exchange utility and lower uncertainty (Kotler, Bowen, & Maken, 2010). Harvey J. Miller argues it is hard to exclude any urban activity, be it shopping, studying, or entertainment, which does not

involve valued face-to-face interactions that the convenience of online access cannot replace (Miller, Harvey J., 2007).

In the past we knew an owning economy, now a sharing economy, but product selling remains the same. Before, we may buy a bicycle for transportation now we rent it using a mobile application. But the need is the same: a bicycle for transportation. Before, we may buy a book to read. Now we buy an e-book. Similar with TIS, before we read magazines, books and brochures to get information of a destination. Now we watch videos on YouTube, observe photos on Instagram, etc. The need is the same, accurate first-hand information, in other words, a testimony or user-generated content. Recommendations from trusted people that they know are the most reliable and powerful sources of information (Book et al., 2018; Marketing Charts, 2013). It is these very kind of reasons (behind the selection or utility of TIS by tourists) that this paper illuminates, in order to be able to create a better marketing communication strategy to attract international tourists.

### **2.3. *Offline TIS***

Tourism marketers find travel risk is a critical issue as tourism services are intangible goods, and thus cannot be examined prior consumption. Therefore, the importance of interpersonal influence is needed to reduce uncertainty before purchase (Lewis and Chambers, 2000). In addition, growing evidence is showing that word-of-mouth (WOM) via friends, relatives or colleagues reflects the most crucial information source for travelers (Dey and Sarma, 2010).

Pearce and Schott advocate the view that the internet was not the only source for information searching. The information can be gathered electronically or from other offline sources, such as handbooks and other people's recommendations. Gronflaten pointed that tourism information searches depend on both online and offline methods

(as cited in C. I. Ho et al., 2012). Snepenger mentioned several offline tourism sources including relatives and friends, destination publication or reading, and travel advisers. Gitelson and Purdue suggest that some travellers have been found to apply other specific information sources, such as welcome centres, and other studies indicated other offline sources, such as travel agents, professional recommendation, word-of-mouth, advertisements, and non-tourism books or movies, as well as personal recommendations at the destination, third-party referrals, such as those by local residents. This shows that a variety of tourism information sources were employed throughout the process of travel decision-making (C. I. Ho et al., 2012).

Word-of-Mouth (WOM) is one of the most effective offline sources for tourists. When making purchase decisions, to reduce uncertainty and perceived risks, tourists often look for WOM referrals. There has been extensive evidence demonstrating that WOM is important in purchase decision and choice behavior (Lee and Youn, 2009). Existing research supports that personal sources (WOM) are more influential on behavior than impersonal sources (Bickart and Schindler, 2001).

Fodness and Murray (1999) classify offline TIS by type of information and source of information. In this paper a broad variety of offline TIS will be evaluated: friends and family (WOM), television, written media (magazines, brochures, books, etc.), travel fair and travel agent.

**Table 1.** Offline Tourism Information Sources

Source of Information	Type of Information	
	Impersonal	Personal
Commercial	Brochure	Clubs
	Travel guides	Travel agencies
	Local tourist office	
Non-commercial	Magazines	Friends and family
	Newspapers	Personal experience

Source: Fodness and Murray (1999).

## **2.4. Attributes of TIS**

There have been many studies about attributes or characteristics of tourism information sources. Thus, this paper does not intend to reinvent the wheel. This paper does not investigate the TIS' attributes but adopts and uses some TIS' attributes that have been developed from different existing studies. Studying the attributes of TIS is important to know what makes tourists compelled to use them.

Eunjung No and Jin Ki Kim found that there are five attributes of information sources: interaction, info-trust, availability, security, and personalization (No & Kim, 2015a). Furthermore, Huang and Benyoucef (2014) presented an empirical study that evaluates two attributes of E-government websites, usability and credibility. Ho and Lee (2007) analyzed five website uses: information quality, security, functionality, customer relationships, responsiveness and fulfilment, which determined customer satisfaction.

Moreover, Dong Jin Kim, Woo Gon Kim, Jin Soo Han (2006) proposed nine attributes to choose online travel agencies: security, ease of use, low rates, handy and related material, design of the website, the speed to process the transaction, capacity to do many tasks in one transaction, flexibility, and sorting option. Five factors are offered to gain consumer trust towards Consumer-generated Media (CGM): source credibility, quality of information, quality of website, customer satisfaction, and user experience with CGM (Filieri et al., 2015).

Those attributes from preceding studies are synthesized and used in this paper. This paper will use online TIS' attributes to measure both online and offline TIS' due to there is no research yet about offline TIS' attributes. Attributes of TIS that are used in this paper are quality of information (related with accuracy and reliability), appealing visual, security, ease of use, the cost, and responsiveness. Though this study does not

want to emphasize on the attributes but the TIS' attributes are used to investigate reasons behind the selection of particular TIS by international tourists to use.

## **2.5. *Tourism Destination Attributes***

The tourism industry sells services. Tourism products are physically seen (such as beaches, mountains, underwater views, lakes, etc.), but the real products are intangible services, and thus relate to the tourist's feeling after visiting a destination and doing tourism activities. As such, tourism depends on images shown by the tourism information sources, both online and offline, in driving tourists' decision-making (Alikiliç, 2008). Attributes of TIS play an important role in the selection of the information sources, while attributes of tourism destination demonstrate a significant role in directing the tourists' decision-making.

The tourism destination attribute or image is a concept that influences the customer's view of a tourist destination and their intention (Lai and Li, 2016). It is also the idea or behavior of customers to the destination (Tasci, Gartner, and Tamer Cavusgil, 2007) and also their beliefs, opinions, and impressions regarding the destination (H. Kim and Richardson, 2003). It has been recognized that the attribute or image perceived by tourists of a destination plays a key role in their decision-making and destination choice (Baloglu & McCleary, 1999).

Dann (1977) states a destination attribute as the 'pull factors.' The pull factors according to Dann- such as landscape, culture, price, service, climate etc.- can pull a tourist to some tourism supplies such as attractions and destinations. The pull factors can direct a tourist to select one destination over another. Dann also examined the 'push factors' which are related to the internal needs of the traveller, such as the desire to escape from their mundane life, relaxation, nostalgia, rest, prestige, knowledge, experience, and social interaction. The 'push-pull framework' demonstrates an

approach to know tourists' urges for traveling, and the reason a tourist chooses a destination.

According to some studies, tourism destination attributes are price, culture, entertainment, beautiful environment, nice weather and climate, accessibility, safety, hospitality of the local people, and service (Zhou, 2005). Attributes of destination that are studied in this paper are beauty nature/landscape, traditions, arts and cultures, fun night life, tasty foods; friendly and helpful Indonesians, good facilities, Bali's good reputation, diverse tourist attractions, affordability, accessibility and modernity.

## ***2.6. Background to Bali as a tourism destination***

Bali is located to the east of the island Java. Its size 5.780 km<sup>2</sup>, which is 0.3% of Indonesia's landmass. It has two active volcanos: Mount Batur and Mount Agung. The latter exploded last June 2019. The population of Bali is 4,292,200 (BPS Bali; 2018). About 93.18% of Bali's population follows Balinese Hinduism, it is a combination of existing local beliefs and Hindu influences from mainland Southeast Asia and South Asia.

Bali is an island that is a province of Indonesia. It has known as a center for culture in Indonesia, and its role as a favorite tourist destination in the world has boosted its economy. Bali remains the dominant tourist destination having the biggest concentration of international tourists and tourism infrastructure (Badan Pusan Statistik, 2014).

Bali is the top of mind for Indonesia's tourism. This underpins why Bali was chosen as the case study. Because it has been developed in the tourism sector and many international tourists from all over the world have visited Bali. Bali's well-established tourism industry simplifies the sampling process.

Bali is one of the prominent destinations in the world. Bali has everything a destination should have: two active volcanos, beaches- Kuta Beach is well known as a surfers' paradise, rice terraces, a national park, lakes, temples, and many more attractions. In 2015, Bali was ranked second out of the 10 best islands in the world according to the magazine published by the American "Travel and Leisure."

The contribution of Balinese tourism to National Tourism is highly important, because 36% of the total foreign tourists visiting Indonesia in 2015 come directly to Bali. The contribution of tourism to the economy of Bali (Bali GRDP) amounted to 65.28% in 2010 increased to be 68.28% in 2014 (Antara & Sumarniasih, 2017).

## **2.7. *International Tourists***

Unlike previous studies that consider the tourist population in general, this study focuses on international tourists due to the intention to discover which TIS international tourists use. Also, the focus on international tourists is designed to answer the problem of the study which is the small number of international tourists coming to Indonesia compared to its neighboring countries.

An international tourist (or by UNWTO is called International Visitor) is an individual who is on a tourism trip or tour and is a non-resident travelling in the country of reference or a resident travelling outside of it (IRTS 2008, 2010). Moreover, international inbound tourists are those who visit a country other than the country of their residence outside their usual environment for a period of not more than 12 months, and whose main purpose is an activity other than one employed inside the country visited (Ilban & Yıldırım, 2017). This paper only discusses about inbound international tourists that visit Bali.

International tourists are important part of this study. The number of international tourists and receipts are criteria for determining tourism income to the

economy of a country, and are also very important to promote a country's reputation and attract more tourists in the future. International tourism receipts are spending by international inbound visitors (Ilban & Yildirim, 2017). In addition, international tourism is significant to bring in foreign exchange for the receiving country (Ding, 2009).

## **2.8. Effectiveness**

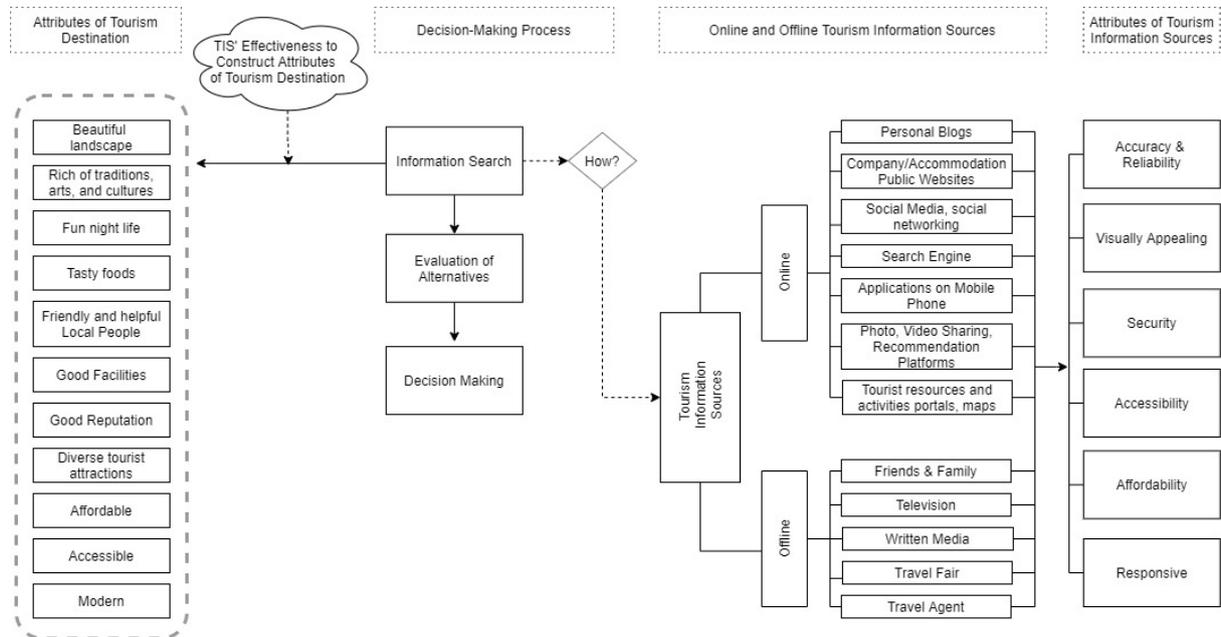
The definition of 'effectiveness' by Webster-Merriam on-line is the power to generate the desired outcome. Effectiveness is measured as the quality of the results (M. Wilson et al., 2018). Moreover, Macquarie Dictionary defines 'effective' as to affect the objective; generating the expected outcome. The effectiveness term is usually followed by the efficiency term (Commission, 2013). However, this paper does not discuss about efficiency because it will need more resources and deeper research instruments.

Effectiveness in this paper will refer to whether TIS has successfully constructed the destination attributes. The effectiveness of TIS constructing attributes of the destination is drawing from comparing perceived attributes during information searching and real attributes after tourists arrived at the destination.

Demonstrating the effectiveness of TIS in constructing a destination attributes is important because tourists decide to travel to a destination because of the attributes or images of the destination that have been developed in a tourist's mind obtained from the information sources. Therefore, besides knowing which TIS international tourists used, it is necessary to know which TIS is the most effective in constructing destination attributes. This means determining whether TIS not only succeeds in influencing tourists to come to a destination but is also effective in depicting the real attributes of

the destination. In this way, tourists will not be disappointed and will likely use the same TIS in the future.

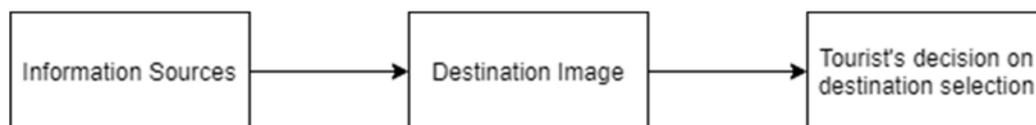
**Figure 1.** A conceptual model of the research



Source: This study refers to (No & Kim, 2015a).

The conceptual model above is in accordance with destination image formation model by Dann (1977). In short, adjusting with the conceptual model above, the Dann's model of destination image formation can be described as seen in Figure 2. From this figure can clearly see the relationship between information sources, destination image and tourist's travel decision or destination selection.

**Figure 2.** Destination Image Formation



Source: Dann, 1977

## **2.9. Hypotheses Development**

The hypotheses of this paper are developed based on the observations of the previous studies and aforementioned related theories on online and offline tourism information sources, information sources attributes and tourism destination attributes. Particularly, Dann's theory (1977) that says information sources affect destination image and many other preceding studies (Hunt, 1975; Goodrich, 1978; and Milman & Pizam, 1995) have demonstrated that a destination image crucially influences tourist's decision on destination selection.

This study attempts to discover which TIS are the most important for international tourists and why. The previous studies haven't used comprehensive information sources and targeted international tourists specifically. This study also tries to find out which TIS have constructed destination image. Therefore, this paper proposes the following hypotheses (H):

- H1** The most used/important TIS for international tourists in decision making are online TIS.
- H2** During information search, international tourists mix the use of online and offline TIS.
- H3** The rationales of TIS selection by international tourists are user-generated content and interactivity service of sources.
- H4** TIS with user-generated content are most effective in constructing the destination attributes.

### **III. Methodology**

#### ***3.1. Design of the Study***

This research investigated TIS that international tourists used to acquire knowledge of a destination. Furthermore, the study investigated the rationales behind their choices of TIS as well as whether the TIS they used have been effective in constructing destination attributes. The investigation done by analyzing TIS and the attributes used by international tourists, and also by analyzing destination attributes according to international tourists' opinion and the TIS which construct them.

In order to test the hypotheses formulated in the previous sections, a descriptive and quantitative analysis method were chosen to understand which the most important TIS used by international tourists, the reasons behind the TIS selection and which TIS have constructed the destination attributes. This study relied on an online questionnaire which was conducted based on the platform of Survey Monkey, the online platform to assist create and distribute a questionnaire and collect responses. An online link was created so that the questionnaire could easily be distributed through email and social media. All survey processes and communications were conducted online.

For the empirical investigation, Bali is used as a case study. Bali is a mature tourist destination and one of the main tourism destinations in the world, for which the main type of tourism is nature and culture. The survey contained a broad range of questions, related to different variables associated with sources of tourism information used by international tourists that visit Bali, attributes of the TIS, and attributes of the destination which is in this case, Bali. Moreover, there are questions regarding sample demographic information.

The survey was comprised of 32 questions with some questions having multiple choices as well as open-ended questions. As the targeted sample was international

tourists, survey questions were conducted in English. The questionnaire (Appendix B) was divided into three parts: part 1 were comprised of the questions on Bali as a tourist destination; part 2 consisted of questions regarding online and offline tourism information sources; and the last part consisted of socio-demographic characteristics questions of the sample.

### **3.2. Variables and Measurement Scales**

The variables used in this study are online and offline tourism information sources (14 items), destination attributes (12 items), activities of tourists (18 items), image comparison before and after (11 items), types of information usually used by tourists and whether that information easy or not easy to find (18 items), whether TIS meet tourists' needs (15 items), TIS' likeliness to re-use in the future (17 items), Six attributes for each TIS, including quality of information, visual appeal, security, easiness to use, cost using TIS, and responsiveness. Other variables related with sample demographic information such as gender, age, education, income, etc. are also included.

The scale was measured by a 5-point Likert scale. This scale is a type of psychometric response scale in which responders specify their level of agreement to a statement typically in five points (Survey Monkey, 2020). Where one represented a response of the least and five represented the most positive. This scale is also used by other previous studies for their survey on tourism information sources (Lluis and Raquel, 2016; No and Kim, 2015; Zhou, 2005; Ding, 2009; Llodrà-Riera, Martínez-Ruiz, Jiménez-Zarco and Izquierdo-Yusta, 2015).

To establish the constructs used in the subsequent analysis, the study conducted exploratory factor analysis with survey data.

Factor Analysis is commonly used for research in the social field. This study uses factor analysis due to the fact that there is no dependent and independent variables (this study does not have y and x variables) as in regression or other types of methodology. Factor analysis is also called an interdependence technique. Unlike variables can be directly measured such as speed, height, weight, etc., some variables like egoism, creativity, happiness, religiosity, comfort, etc. are not a single measure entity. They cannot be measured directly. Usually they need several other items before we can finally get the exact meaningful variable/factor/explanation. Factor analysis is usually used by marketers to investigate the psychological profile of consumers' need (Nayak, K. Jogendra, lecture, 2018). This study tries to investigate the reasons behind TIS selection and use, and such it is appropriate to conduct this research using factor analysis.

The objective of factor analysis is simplification of items into a subset of concepts or measures through which the researcher can get the construct or latent variables that define or explain intercorrelations among the variables (Comrey and Lee, 1973).

**Table 2.** Technical Details

Universe	International tourists
Sample unit	International tourists that visit Bali
Information collecting method	Online questionnaire
Sample procedure	Non-probabilistic method
Sample design	Information was collected using an online questionnaire (Survey Monkey). The link was sent via e-mail and published in social media.
Number surveyed	127 valid surveys out of 143
Period of information collection	July to October, 2016
Statistical analysis	Stata 13.1

### 3.3. *Sample*

The analysed sample consists of 127 valid surveys, gathered online between July and October, 2016. Replies arrived from all over the world. The universe comprises international tourists. As the population is large and randomization is impossible to do due to limited resources, time and workforce, convenience sampling was chosen as the preferred method to collect required data. The following tables describe sample demographic information. This study tends to obtain various demographic data as it is useful for the factor analysis method.

The online questionnaires were distributed or sent to, and collected, from the 138 identified survey subjects during the month of July to October 2016. Among them, 10 questionnaires cannot be used due to they are not international tourists, which amounted to 128 valid responses, for a valid response rate of 92.75%.

The characteristics of valid samples subjects are as follows: (1) Sex: 53 female (41.4%) and 31 male (24.22%); (2) Age: almost half of the subjects are between the ages of 25 and 44, 46.09% (59 subjects); (3) Education: up to 54 subjects hold a bachelor's degree and completed graduate school; (4) Occupation: work in private sector predominates (48 subjects, 37.5%); (5) Employment Status: Employed, working full-time predominates (43.75%); (6) Ethnicity: White and Asian people predominate (25% and 23.43%); (7) Objectives of visit: Mostly for pleasure (102 subjects, 79.68%); (8) Method of visit: 47 subjects used tour package, and 44 subjects self-organized the tour (see Appendix A for more detail respondent characteristics).

## IV. Data Analysis

### 4.1. Reliability and Validity of Data

According to Rosenthal & Rosnow (1984), reliability is a measure to check the data consistency and stability, and the validity inspects the relation between a construct and its measures.

This study first tested whether the data satisfied the basic assumption for a factor analysis. The following three steps were implemented: the correlation coefficient was obtained from the questionnaires, a Bartlett's test of sphericity was established, and a Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy (MSA) was specified.

In order to check the reliability of the data, Bartlett's test of sphericity, Kaiser-Meyer-Olkin (KMO) test and Cronbach's Alpha were conducted. In this study, all variables can be grouped and correlated significantly. The p-values of Bartlett's test of sphericity tests for all variables are less than **0.001**, thus we can reject the Null Hypothesis (H<sub>0</sub>) that all variables are correlated and is not identity matrix.

The most basic assumption in multivariate data analysis is the normality of the data, which has been tested using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. In this study, all factor analysis done for all variables provided a KMO MSA value of > **0.80**, indicating that the model is meritorious (Hair, Black, Babin, Anderson, 2010). For reference, Kaiser and Rice (1974) put the following values on the results: to 0.49 unacceptable; 0.50 to 0.59 miserable; 0.60 to 0.69 mediocre; 0.70 to 0.79 middling; 0.80 to 0.89 meritorious; and 0.90 to 1.00 marvelous.

For reliability testing Cronbach's  $\alpha$  was assessed for every construct. This study set Cronbach's Alpha of > **0.70** for each construct which indicates a very good level of reliability for the items and the scales or measures that were used in this study (Nunnally, 1978). The key output here is the "scale reliability coefficient" – which is Cronbach's

$\alpha$ . The rule of thumb is that this coefficient should be at least 0.50, with many analysts seeking a value of 0.70 or higher before they are willing to accept the set of items as being related to a single latent factor (Pad & Analysis, 2007).

This study tested validity of data by examining factor correlations. All variables are correlated by  $\leq 0.7$ . Validity is the extent to which a construct or measurement is well-grounded and conforms accurately to what we know or measure. In other words, it is the degree to which it measures what it is supposed to measure (No & Kim, 2015b).

Stata 13.1 was used as a statistical package for the testing. All statistics supported the overall measurement quality given the number of indicators. In this study, all factors constructed provide the Kaiser-Meyer-Olkin measure of sampling adequacy approached 1, and the Bartlett test was satisfactory, with a significance level of less than .01 and all variables are correlated by  $\leq 0.7$ . Therefore, reliability and validity were established.

#### ***4.2. The Most Important Tourism Information Sources***

The first research question is to understand the tourism information sources chosen and used by international tourists to get information about the destination they want to visit. In other words, what are the most important TIS for international tourists.

To answer this question, mean, median and standard deviation are provided. Among the information sources, the top three sources are Friends and Family (WOM, word-of-mouth), Search Engines and Social Media. All three of these TIS have one similar characteristic, which is that all of them are user-generated content. From this result, it can be concluded that the most important TIS for international tourists are user-generated content TIS, which means international tourists prefer to get information

about the destination they would like to visit from other people’s recommendations or testimonies about their first-hand travel experience to the destination.

**Table 3.** Information sources, mean, median, standard deviations, skewness, kurtosis

Variable	Code	Obs	Mean	Std. Dev.	Skewness	Kurtosis
Friends and Family	tis9	127	.5984252	.4921582	-.4015579	1.161.249
Search engines	tis5	127	.4251969	.4963307	.3026184	1.091.578
Social media (Fb, Twitter, Travellerspoint, etc.)	tis4	127	.3307087	.4723316	.7196716	1.517.927
Blogs	tis1	127	.2519685	.4358627	1.142.625	2.305.592
Company website (hotel, agoda, etc.)	tis2	127	.2362205	.4264414	1.242.019	2.542.612
Brochure, book, magazine, newspaper	tis11	127	.1732283	.3799434	1,72692	3.982.251
Photo-sharing (Flickr, Instagram, etc.)	tis8	127	.0787402	.2703994	3.128.174	1.078.547
Travel agent/consultant	tis13	127	.0787402	.2703994	3.128.174	1.078.547
Public/government website	tis3	127	.0708661	.2576174	3.344.754	1.218.738
Video-sharing (e.g. YouTube)	tis7	127	.0708661	.2576174	3.344.754	1.218.738
Applications on mobile phone	tis6	127	.0393701	.195244	4.737.192	2.344.098
Television	tis10	127	.0314961	.1753458	5.364.934	2.978.252
Past Experience	tis14	127	.023622	.15247	6.273.558	4.035.753
Travel fair	tis12	127	.007874	.0887357	1.113.589	1.250.079

The above results also get confirmed by examining the data of TIS meeting the international tourists’ information needs. From Table 4 we get similar results with Table 3 for the top three TIS, which are search engines, friends and family, and social media. To conclude, from two different cohorts of variables or measures, we get almost the same results for the most important TIS for international tourists; Only, blogs in Table 4 is slightly higher than social media.

**Table 4.** TIS Meet International Tourists’ Need

Variable	Code	Obs	Mean	Std. Dev.	Skewness	Kurtosis
Search engines	sem	127	2,50394	2,23917	-0,09463	1,20602
Friends and Family	friendm	127	2,25197	2,33663	0,16611	1,13926
Blogs	blogm	127	1,55906	2,04960	0,72282	1,75218
Social media (Fb, Twitter, Travellerspoint, etc.)	socmedm	127	1,29134	1,77330	0,87384	2,19037
Tourist resource and activities portal meet	turesm	127	1,14961	1,76868	1,11993	2,64743
Rent Accommodation portal meet	rentm	127	1,13386	1,85747	1,21363	2,75764
Company website (hotel, agoda, etc.)	comwebm	127	1,09449	1,65440	1,08418	2,59979
Public/government website	pgwm	127	1,00000	1,50660	1,16033	2,92207
Applications on mobile phone	appm	127	0,79528	1,56519	1,72613	4,43638
Brochure, book, magazine, newspaper	brochm	127	0,79528	1,50838	1,66041	4,28567

Photo-sharing (Flickr, Instagram, etc.)	photom	127	0,58268	1,31801	2,22120	6,72751
Travel agent/consultant	tragentm	127	0,51181	1,27781	2,52849	8,14791
Video-sharing (e.g. YouTube)	vidm	127	0,44882	1,12482	2,71471	9,55825
Television	tvm	127	0,40157	1,02555	2,99276	1,18508
Travel fair	trafairm	127	0,29134	0,83676	3,41032	1,50931

From the above findings we can draw a conclusion that the most important TIS for international tourist are search engines and friends and family. Thus, the First Hypothesis (H1) is not supported, because the most important/used sources by international tourists are search engines, which is an online source, and friends and family is an offline TIS.

This result is in accordance with Fesenmaier, Xiang and Pan's (2011) rank of travel-related websites, that produced the following order sources of information: search engines, suppliers' sites, OTAs, friends and family, etc. Also, Verma, Stock, and McCarthy (2012) argue that tourists use different online sources during various phases, with search engines being more crucial in the beginning of information searching.

Though the search engines are not information sources as such, but they are devices for searching information and thus act a mediating role for customers in the inquiry process. Search engines are the primary information sources, despite they are not the content owners (Murphy et al., 2016).

The finding of Friends and Family as one of the most prime sources is also supported by Hernández-Méndez et al. (2015b). The study shows that when arranging travel, tourists continue to be affected to a greater extent by the views and recommendations of friends and relatives (known as offline word-of-mouth or WOM) than by other internet users (eWOM).

Moreover, to test the second hypothesis, whether during information searching international tourists mix the use of online and offline TIS, this study provides factor loading scores of the likeliness of international tourists to use TIS in the future. The

patterns shown in Table 5 are interesting as the Factor 1 consists of variables of TIS that are mixed between online and offline sources. Whereas three other factors consist of TIS with same category only- online or offline.

From this finding particularly from Factor 1, we conclude that Hypothesis 2 (H2) is supported that during information searching, international tourists tend to mix the TIS they use, both online and offline. Further, the online TIS that they use also varies, between interactive and user-generated content. As we can see in Factor 1 there are four online TIS which are both interactive and user-generated content (Recommendation Platform, Tourist Resource, Rent Accommodation, Online Maps, and Search Engine) and one offline TIS which is Friends and Family (usually called Word of Mouth/WOM).

**Table 5.** Rotated Factor Loading of Likely to Use TIS in the Future

Variable	Code	Factor1	Factor2	Factor3	Factor4	Uniqueness
Recommendation platform future use	reclkly	0.8157	0.2232	0.1290	0.2573	0.2020
Tourist resource future use	tureslkly	0.7707	0.1770	0.2496	0.0512	0.3098
Rent accommodation future use	accmlkly	0.7624	0.3266	0.1363	0.1315	0.2762
Online Maps future use	maplkly	0.6398	0.2439	0.3036	0.2536	0.3746
Search engine future use	selkly	0.6188	0.0366	0.1661	0.4823	0.3556
Friends and families future use	friendlkly	0.4762	0.1547	0.2133	0.4735	0.4796
Video sharing future use	vidlkly	0.3048	0.8043	0.2926	0.0176	0.1744
Photo sharing future use	photolkly	0.2408	0.7538	0.2282	0.1757	0.2909
Social media future use	socmedlkly	0.0699	0.6546	0.0211	0.4744	0.3411
Application on mobile phone future use	applkly	0.4437	0.5858	0.2700	0.0961	0.3778
Television future use	tvkly	0.0871	0.3739	0.7468	0.1906	0.2585
Travel fair future use	trafairlkly	0.2763	0.3276	0.7319	0.0410	0.2790
Written media future use	writlkly	0.1478	0.3119	0.7283	0.1853	0.3162
Travel agent future use	tragentlkly	0.3030	-0.1637	0.7051	0.0738	0.3787
Public gov web future use	pgwklkly	0.2487	-0.0526	0.2144	0.6785	0.4291
Company web future use	comweblkly	0.3291	0.3044	0.1449	0.6733	0.3247
Blog future use	bloglkly	0.1335	0.2704	0.0877	0.6579	0.4686
Number of items		6	4	4	3	
Eigenvalue		7,525	1,504	1,283	1,052	All
Proportion		0.4426	0.0885	0.0755	0.0619	Uniqueness
Cronbach's alpha		0.8752	0.7956	0.7770	0.6765	<0.6
KMO			0.850			

Bartlett test of sphericity p-value = 0.000

#### ***4.3. Factors for the Selection of Tourism Information Sources***

The second research question is “what are the reasons behind the selections of tourism information sources by international tourists?”. To answer this question, Factor Analysis of all TIS attributes was conducted. In Table 6, there are three factors extracted, however Factor 3 is not reliable because of a Cronbach’s alpha of less than 0.70. It can be concluded that international tourists do not see that Travel Fairs, Travel Agents and Public/Government Websites have the quality of information that they need.

From Table 6, we can see out of 17 sources, Factor Analysis reduces them into three Factors, and only two Factors are reliable: Factor 1 and Factor 2. Factor 1 consists of nine variables/sources: Video Sharing Portals, Photo Sharing Portals, Tourist Social Network, Television, Application on Mobile Phone, Rent Accommodation Portals, Written Media, Social Media and Tourist Resource Portals. Factor 2 consists of five sources: Search Engines, Company Websites, Blogs, Friends and Family and Recommendation Platforms. This finding is in accordance with the statement that tourists no longer only depend on information provided by businesses or public/government descriptions of a destination, because now everyone can share information, and people can shortly access comments from other customers who have been to the destination (WTTC, 2011).

Factor 1 and 2 make two cohorts with different types. Factor 1 is a cohort of TIS with more experience-sharing platforms. On these platforms, tourists share useful information such as photos and stories, meet up with someone while traveling or find reviews from other travelers. There are two offline TIS in this cohort: Television and Written Media. So, Factor 1 is a mix of variables of online and offline TIS.

Factor 2 refers mainly to TIS in which tourists can get information, rather than use them as experience-sharing/connecting platforms. These TIS include Search Engines, Company Websites, Blogs, Friends and Family and Recommendation Platforms; all

generally used by tourists to get information only. To share and connect to other travelers, they usually use social media or networks like the TIS cohort in Factor 1.

These findings show similarities to theory saying that social media/network websites enable internet users to develop virtual travel communities (VTCs) that make it easier for them to find information, maintain connections, develop relationships, and eventually make travel decisions (Ayeh, Au, & Law, 2013; Stepchenkova, Mills, & Jiang, 2007). Moreover, Munar and Jacobsen (2013) found that information sharing is commonly related to textual and narrative communicative practices (e.g. blogs and written reviews), and the sharing of experiences related to the creation and online sharing of audio-visual content (e.g. photos and videos). In tourism, users are dependent on experience reviews shared by other users through photos and videos on the internet. Thus, social networking has become an important communication tool to connect individuals or to interact with friends (Subrahmanyam, Reich, Waechter and Espinoza, 2008).

There is one offline TIS in this cohort which is Friends and Family. Thus, Factor 1 and 2 show a clear division between sources for connecting to each other and sources for getting information, though still mixed in terms of offline and online sources. The findings are in line with notions that the hospitality and tourism industry have become an essential tool for accessing different sources of tourism information (Law et al., 2009; Sigala et al., 2012).

In other words, from this finding we know that in terms of quality of information, international tourists prefer TIS through which they can connect to other travelers and TIS which allows them to obtain information from first-hand experience. These statements hold true for online TIS. Regarding offline TIS, and the quality of information, international tourists tend to use television, written media, and information from friends and family.

Furthermore, the findings that emerged are intuitive and as expected, because in regard to quality of information, tourists tend to look for reviews from previous travelers. Tourists think that previous travelers are real customers, and so information comes from them is likely unbiased, unlike information that may come from commercial or official sources (Filieri et al., 2015).

Therefore, concerning the second research question regarding the reasons why international tourists use particular TIS, from this result we can assume that there are two reasons: firstly, the services enable tourists to interact with other travelers who have prior experience with the destination. Secondly, the property allows tourists to obtain user-generated travel information or reviews. These two things are closely related to the quality of information attribute because it is considered that those TIS have better quality information, as reviews come from real, unpaid customers. The motives of reviewers are assumed to be that they only want to share knowledge and make travel more enjoyable for others, not for commercial gain.

**Table 6.** Rotated Factor Loading of Quality of Information of TIS

Variable	Code	Factor1	Factor2	Factor3	Uniqueness
Video sharing portal quality of info	vidqty	0.8715	0.2572	0.1248	0.1588
Photo sharing portal quality of info	photoqty	0.8478	0.2281	0.1732	0.1992
Tourist social network quality of info	toursocnet~y	0.7997	0.0986	0.3524	0.2265
Television quality of info	tvqty	0.7996	0.0738	0.1639	0.3283
Application on mobile phone quality of info	appqty	0.7385	0.3773	-0.0708	0.3072
Rent accommodation portal quality of info	accomqty	0.5553	0.5038	0.1212	0.4232
Written media quality of info	writmedqty	0.5453	0.1436	0.4722	0.4590
Social media quality of info	socmedqty	0.5374	0.4480	0.0446	0.5085
Tourist resource portal quality of info	turesqty	0.5277	0.2846	0.1944	0.6027
Search engine quality of info	seqty	0.1628	0.7736	0.1173	0.3613
Company web quality of info	comwebqty	0.1675	0.7364	0.0922	0.4212
Blog quality of info	blogqty	0.2485	0.6386	0.0466	0.5283
Friends and family quality of info	friendqty	0.2797	0.6283	0.2343	0.4722
Recommendation platform quality of info	recomplatqty	0.3585	0.6090	0.3000	0.4107
Travel agent quality of info	tragentqty	0.2775	0.1731	0.6855	0.4232
Travel fair quality of info	trafairqty	0.5878	0.0196	0.6138	0.2774
Public gov web quality of info	pgwqty	0.0210	0.3426	0.6021	0.5197
Number of items		9	5	3	
Eigenvalue		7,703	1,635	1,034	

Proportion	45%	10%	11%
Cronbach's alpha	0.9003	0.8014	0.5314
KMO		0.891	

Bartlett test of sphericity p-value = 0.000

The second attribute that we need to examine to determine the reason international tourists use certain TIS is the attribute of visually appealing of TIS. Wong and Law (2005) suggested that visual attractiveness is one of the online sources attributes that drives travelers to make purchases online.

The result (see Table 7) shows only two factors out of four factors extracted are reliable. That means TIS which are considered visually appealing by international tourists, from Factor 1 are Photo Sharing Portals, Application on Mobile Phone, Television, Video Sharing Portals, Rent Accommodation Portals, Social Media. And from Factor 2 are Search Engines, Friends and Family, Recommendation Platforms and Tourist Resource and Activities. This result can be interpreted as international tourists considering online interactive and user-generated sources as more visual appealing rather than travel agents, travel fairs, public government websites, blogs, company websites and written media.

Tourism is connected with sightseeing, and highly related to image-making media. Therefore, pictures and videos as well as the design of a source is important to catch tourists' attention and awareness (Beeton, 2004). The result shown in Table 7 resembles the previous result in Table 6. All online TIS in Factor 1 are not only user-generated content or media but also interactive TIS since through all of them, tourists can network with their fellow travelers. While Online TIS in Factor 2 are all user-generated content only, where tourists usually obtain information. And for offline TIS in Factor 1 and 2, they are still dominated by Television and Friends and Family.

Being visually appealing, by delivering pictures of the destination, as well as having a good design and presentation of the source, is essential in meeting customers' expectations (Kaynama & Black, 2000). Visual materials such as photos, illustrations and texts are all considered likeable (Siu and Fung, 1998). Visual materials are an important factor in tourists' information searching and decision making. Pictures are more attractive than text and it is profitable to include attractive graphics (Edell and Staelin, 1983).

**Table 7.** Rotated Factor Loading of TIS Visual Appealing

Variable	Code	Factor1	Factor2	Factor3	Factor4	Uniqueness
Photo sharing portal visual	photovis	0.8356	0.1007	0.2522	0.1742	0.1977
Application on mobile phone visual	appvis	0.7544	0.2836	0.0642	0.2013	0.3058
Television visual	tvvis	0.7372	0.1421	0.3610	0.0611	0.3023
Video sharing portal visual	vidvis	0.6961	0.1401	0.1886	0.3307	0.3510
Rent accommodation portal visual	accmvis	0.6409	0.5201	0.0246	0.0291	0.3173
Social media visual	socmedvis	0.5377	0.1944	-0.0590	0.5261	0.3928
Search engine visual	sevis	0.1355	0.7295	0.1275	0.2651	0.3630
Friends and families visual	friendvis	0.1119	0.6916	0.2119	0.1638	0.4374
Recommendation platform visual	recvis	0.5118	0.6222	0.0757	0.0741	0.3397
Tourist resource and activities visual	turesvis	0.4267	0.5197	0.3431	0.1696	0.4013
Travel agent visual	tragentvis	0.1198	0.1760	0.8203	0.0050	0.2818
Travel fair visual	trafairvis	0.4182	-0.0439	0.6460	0.4218	0.2279
Written media visual	writvis	0.4288	0.3235	0.5272	-0.0186	0.4332
Public gov web visual	pgvis	0.0811	0.2052	0.3608	0.7110	0.3156
Blog visual	blogvis	0.3213	0.1044	0.0150	0.5795	0.5499
Company web visual	cwvis	0.2502	0.4015	-0.1311	0.5662	0.4385
Number of items		6	4	3	3	
Eigenvalue		6,900	1,302	1,106	1,037	All
Proportion		43,12%	8,14%	6,91%	6,48%	Uniqueness
Cronbach's alpha		0.8623	0.7545	0.6775	0.5814	<0.6
KMO				0.860		

Bartlett test of sphericity p-value = 0.000

The third attribute is security. No and Kim (2015) found there are five attributes of TIS: interaction, info-trust, availability, personalization and security. Security is one of the most vital attributes of TIS since personal data information is at risk especially when using online TIS. Many internet users are averse to providing personal information online because

they do not trust e-commerce security (Kim et al., 2011, p. 257). Park and Gretzel (2007) describe security in three ways: safeguard information during transmission and following storage, security for online purchases or booking, and confidentiality information. Mills and Morrison (2003) define security as the safety of personal information during transactions on an online source.

TIS must demonstrate themselves to be trustworthy concerning the safeguard of a user's personal information to gain their trust. Trust affects tourists' intention to follow others' advice. Trust is expected to foresee suggestions adoption and word of mouth (WOM).

By using Factor Analysis method, this study empirically demonstrates interactive online TIS get higher factor loading scores. In the extracted Factor 1 and 2 in Table 8 for attribute security, there are several highly interactive sources such as video sharing portals, photo sharing portals, mobile applications and tourism social network. Online textual user-generated content TIS are not included, such as social media, blogs, and search engines. From this finding we can say that international tourists feel more secure on interactive social media.

According to previous studies mentioned above, security is not only about the safeness of consumers' personal and confidential information, but also about the information shared in the sources. From this result for online TIS, apparently international tourists feel more secure in the information shared through interactive social media. In terms of offline TIS, the result is still the same, with television, and friends and family preferred for use as well for its security.

**Table 8.** Rotated Factor Loading of Attribute Security

Variable	Code	Factor1	Factor2	Factor3	Factor4	Uniqueness
Video sharing security	vidsec	0.8633	0.2053	0.1664	0.2417	0.1263
Photo sharing security	photosec	0.8366	0.3053	0.2505	0.1646	0.1171
Television security	tvsec	0.7819	0.1706	0.2757	0.1552	0.2594
Application on mobile phone security	appsec	0.7664	0.2162	-0.0504	0.2155	0.3169
Tourism social network security	tswsec	0.7218	0.3078	0.3871	0.2381	0.1778

Travel fair security	trafairsec	0.6292	0.0665	0.5778	-0.0055	0.2658
Tourist resource security	turessec	0.5020	0.4551	0.2590	0.0656	0.4695
Online Maps Portal security	mapsec	0.3114	0.7658	0.0629	0.2220	0.2633
Recommendation platform security	recsec	0.4041	0.7201	0.1779	-0.0604	0.2828
Rent accommodation security	acmsec	0.5130	0.6129	-0.0776	-0.0107	0.3550
Friends and family security	friendsec	-0.0159	0.5789	0.1177	0.5658	0.3306
Travel agent security	tragentsec	0.1967	0.0185	0.8694	0.0927	0.1965
Written media security	writsec	0.3005	0.4345	0.5788	0.1287	0.3693
Public gov web security	pgsec	0.1544	0.3655	0.4027	0.2941	0.5939
Blog security	blogsec	0.2877	0.0421	0.1963	0.7552	0.3065
Social media security	socmedsec	0.4659	0.0726	-0.0242	0.7071	0.2771
Number of items		7	4	3	2	
Eigenvalue		7,7375	1,3017	1,1473	1,1056	All
Proportion		48,36%	8,14%	7,17%	6,91%	Uniqueness
Cronbach's alpha		0.9174	0.7562	0.6138	0.6957	<0.6
KMO				0,887		

Bartlett test of sphericity p-value = 0.000

From Table 9, the interesting findings of this study may contribute to verifying that using interactive and user-generated content/media is easier than using travel agents and getting information from written media. In terms of ease of use, the interactive social media such as video and photo sharing and mobile applications are considered the easiest to use. In line with the research conducted by Google, leisure travelers overwhelmingly rely on search engines via smartphones (Ipsos MediaCT, 2014). Television and Friends and Family still manage to be the most used by international tourists for the offline TIS category.

Saving time and ease of use are the two major causes that stir users to look for tourist information on the Internet (Heung, 2003). Another reason is it allows tourists to be more involved in the travel planning process. The definition of ease of use in this matter is that consumers enjoy convenience and more control in making transactions online (Fesenmaier, Cook, & Sheatsley, 2009). Further, Jeong and Lambert (2001) stated that ease of use has a positive influence on a users's motives to use the information obtained on the website for making transactions.

**Table 9.** Rotated Factor Loading of Attribute Ease of Use

Variable	Code	Factor1	Factor2	Factor3	Factor4	Uniqueness
Video sharing easiness	videoeas	0.8393	0.2580	0.1985	0.2149	0.1433
Application on mobile phone easiness	appeas	0.7835	0.2369	0.2849	0.0236	0.2483
Photo sharing easiness	photoeas	0.7472	0.4340	0.1088	0.2487	0.1797
Television easiness	tveas	0.7089	0.2666	0.1318	0.3573	0.2813
Maps easiness	mapeas	0.3311	0.7962	0.1853	0.0451	0.2201
Recommendation platform easiness	receas	0.2983	0.7591	0.2132	0.1521	0.2662
Tourist resource easiness	tureseas	0.2368	0.6926	0.1515	0.1914	0.4047
Rent accommodation easiness	accmeas	0.3729	0.6776	0.0977	0.2156	0.3458
Friends and family easiness	friendeas	0.1663	0.4603	0.3690	0.1744	0.5939
Search engine easiness	seeas	-0.0812	0.3702	0.6941	0.1533	0.3511
Social media easiness	socmedeas	0.4603	0.0849	0.6721	0.0287	0.3283
Blog easiness	blogeas	0.3614	0.0019	0.6683	0.1527	0.3994
Company web easiness	comwebeas	0.3733	0.3319	0.6350	0.0510	0.3446
Public gov web easiness	pgeas	0.2130	0.2405	0.5820	0.3079	0.4632
Travel agent easiness	tragenteas	0.1033	0.1506	0.1293	0.8624	0.2061
Travel fair easiness	trafaireas	0.3090	0.0839	0.1350	0.7836	0.2653
Written media easiness	writeas	0.3780	0.3285	-0.0900	0.4862	0.5047
Number of items		4	5	5	3	
Eigenvalue		7,6962	1,4510	1,2260	1,0811	All
Proportion		45,27%	8,54%	7,21%	6,36%	Uniqueness
Cronbach's alpha		0.9002	0.8382	0.7992	0.6858	<0.6
KMO			0,874			

Bartlett test of sphericity p-value = 0.000

Unlike other attributes in which the superior sources are mostly the interactive social media, in Table 10, the result shows cost attribute, user-generated content media and websites are the superior sources. They are social media, photo and video sharing, mobile applications, blogs, and public websites are superior (Factor 1). Wang, Head, and Arthur point out that the benefits of online tourism information sources include the relatively low cost, customized information, easy of comparing product, interactivity, virtual community establishment, and 24 hour accessibility (as cited in C. I. Ho et al., 2012).

**Table 10.** Rotated Factor Loading of Attribute Cost

Variable	Code	Factor1	Factor2	Factor3	Uniqueness
Social media cost	socmedcost	0.8032	0.2205	0.1862	0.2716
Company web cost	comwebcost	0.7184	0.2683	0.3446	0.2932
Application on mobile phone cost	appcost	0.6961	0.3294	0.3537	0.2819
Photo sharing cost	photocost	0.6921	0.4295	0.3162	0.2367
Video sharing cost	vidcost	0.6515	0.4658	0.3706	0.2212
Blog cost	blogcost	0.6332	0.1814	0.2199	0.5178
Public Government Web cost	pgcost	0.6117	0.2491	0.2998	0.4738
Travel agent cost	tragentcost	0.0329	0.8249	0.1880	0.2832
Travel fair cost	trafaircost	0.3405	0.8243	0.1489	0.1823
Written media cost	writcost	0.3439	0.8025	0.1894	0.2019
Television cost	tvcost	0.4240	0.7472	0.2518	0.1986
Recommendation platform cost	reccost	0.2193	0.2464	0.8241	0.2121

Search engine cost	secost	0.2911	-0.0017	0.7888	0.2930
Tourist resource cost	turescost	0.1526	0.4854	0.6921	0.2621
Maps cost	mapcost	0.3983	0.2510	0.6711	0.3279
Rent accommodation cost	accmcost	0.3943	0.3527	0.6513	0.2960
Friends and families cost	friendcost	0.2902	0.2681	0.5198	0.5738
Number of items		7	4	6	
Eigenvalue		9,332	1,432	1,108	All
Proportion		54,90%	8,42%	6,52%	Uniqueness
Cronbach's alpha		0.9047	0.9004	0.8800	<0.6
KMO			0.884		

Bartlett test of sphericity p-value = 0.000

The last attribute is responsiveness. Responsiveness includes communications, easiness of inquiries, effectively functioning system of FAQs, feedback, and users opinions such as forum for discussions, complaints, etc. Altogether, it includes all attributes that allow the source personnel to respond to customers' inquiries (Zeithaml et al., 2002).

The results remain the same from the first attribute until the last one and the results are consistent that interactive user-generated content such as video and photo sharing platforms and mobile applications dominate in all the attributes. Also, this study echoes findings from the Google Travel Study that leisure travelers rely on a mix of sources. The results show no decisive separation between online and offline sources (Ipsos MediaCT, 2014).

**Table 11.** Rotated Factor Loading of Attribute Responsive

Variable	Code	Factor1	Factor2	Factor3	Uniqueness
Video sharing quick response	vidquik	0.9079	0.2053	0.1800	0.1012
Photo sharing quick response	photoquik	0.8965	0.2628	0.1525	0.1040
Television quick response	tvquik	0.8221	0.0908	0.1660	0.2883
Application on mobile phone quick response	appquik	0.7070	0.3702	0.2828	0.2831
Travel agent quick response	tragentquik	0.2054	0.7823	0.0762	0.3400
Travel fair quick response	trafairquik	0.3837	0.7068	0.1026	0.3427
Recommendation platform quick response	recquik	0.3465	0.7035	0.3404	0.2692
Public gov web quick response	pgwquik	0.1955	0.6040	0.1019	0.5865
Company web quick response	comwebquik	0.2550	0.5606	0.4628	0.4065
Search engine quick response	sequik	0.3113	0.0890	0.7193	0.3778
Friends and family quick response	friendquik	0.1329	0.2049	0.7084	0.4386
Social media quick response	socmedquik	0.3920	0.1505	0.6709	0.3735
Blog quick response	blogquik	0.1414	0.2645	0.4981	0.6619

Rent accommodation quick response	accmquik	0.3456	0.4546	0.4801	0.4435
Number of items		4	5	5	
Eigenvalue		6,6216	1,2467	1,1148	
Proportion		47,30%	8,90%	7,96%	
Cronbach's alpha		0.8991	0.8128	0.7623	
KMO			0.860		

Bartlett test of sphericity p-value = 0.000

From the results and discussions of all six TIS attributes above, it can be assumed that the third hypothesis (H3) is supported. That from the constructed structures or latent variables drawn the rationales of TIS selection by international tourists as per the discussions above, which is: interactivity and user-generated content of sources.

#### ***4.3. Effective TIS that Construct Destination Attributes that Attract International Tourists to Bali***

The last research question is “have the tourism information sources that are used by international tourists effectively constructed destination attributes/images?”. To get the answer, the study uses descriptive analysis on variables of tourism destination attributes that are collected by online survey. The study also uses Factor Analysis to examine the destination attributes as well as the comparison of perceived and real destination attributes.

**Table 12.** Mean and Standard Deviation of Tourism Destination Attributes

Variable	Code	Obs	Mean	Std. Dev.
Beautiful nature/landscape (beach, lake, forest, mountain, etc.)	desatt1	127	.7480315	.4358627
Rich of traditions, arts, and cultures	desatt2	127	.4645669	.5007181
Affordable	desatt9	127	.4409449	.4984666
Good reputation of Bali	desatt7	127	.3779528	.486796
Accessible	desatt10	127	.3779528	.486796
Tasty foods	desatt4	127	.3543307	.4802043
Friendly and helpful Indonesians	desatt5	127	.3149606	.4663398
Good facilities (hotel, transportations, etc.)	desatt6	127	.2755906	.4485809
Diverse tourist attractions (rice terrace, zoo, bird park, temples, water park)	desatt8	127	.2755906	.4485809
Other (please specify) ex factor friends, work, not muslim, study	desatt12	127	.1338583	.3418485
Fun night life	desatt3	127	.1023622	.3043245
Modern	desatt11	127	.0629921	.243911

From the descriptive analysis in Table 12, we can get the conclusion that the prominent destination attributes of Bali island are the beauty of nature and richness of culture.

The second variable that is used to answer the research question is the comparison between perceived and real destination attributes and is analyzed by conducting Factor Analysis. The distributed online survey asks respondents “what was your image of Bali before and after your visit (was your perceived image the same or different as the reality)?”.

Interestingly, the result as shown in Table 13 describes are two factors extracted, and they clearly show two different groups. One is group of non-nature and culture attributes, and another one is the group of nature and culture attributes. But since the Factor 2 of nature-culture has Cronbach’s alpha less than 0.70, then it is not reliable to use. However, from this finding we can see that TIS have successfully constructed Bali’s attributes especially for the non-nature and culture attribute, such as accessibility, modernity, affordability, and so on.

**Table 13.** Rotated Factor Loading of Perceived vs Real Tourism Destination Attributes

Variable	Code	Factor1	Factor2	Uniqueness
Accessible	acces	0.8133	0.1433	0.3179
Modern	modrn	0.8058	0.1593	0.3253
Affordable	afford	0.7480	0.0167	0.4403
Attractions	atrcc	0.7232	0.1093	0.4651
Fun night life	fnight	0.7028	0.0487	0.5037
Friendly local people	frenly	0.7024	0.1843	0.4726
Food	food	0.6878	0.1522	0.5037
Good facility	gudfac	0.6133	0.4684	0.4045
Good reputation of Bali	gudrep	0.5978	0.4308	0.4570
Beauty nature	beauty	-0.0313	0.8366	0.2991
Culture	cult	0.3362	0.6265	0.4945
Number of items		9	2	
Eigenvalue		5,198	1,118	

Proportion	47,25%	10,17%
Cronbach's alpha	0.8852	0.3831
KMO	0.876	

Bartlett test of sphericity p-value = 0.000

Specific TIS have successfully constructed destination attributes/images, are indicated by Table 3 as TIS search engines and TIS friends and family. The data gathered from Table 3 come from the direct question to international tourists: “How did you get the information (image) about Bali?” (refer to the questionnaire at Appendix B. Question number 9).

On that account, the fourth hypothesis (H4) is supported. That the most effective TIS to construct destination attributes are user-generated content TIS, as shown in Table 3: friends and family, search engines, and social media. However, from the results using factor analysis to TIS and its respective attributes, we also get another conclusion that it is not only the user-generated content sources but also interactive social media that is important for international tourists, where interactive social media is definitely user-generated content. However, user-generated content does not necessarily have interactive service.

## V. Conclusions

Indonesia is the largest archipelago in the world and Southeast Asia's largest economy, but the country has attracted few international tourists compared to its regional

peers. Considering its tremendous tourism potential, it is obvious that Indonesia must change to better take advantage of its full capacity (Indonesia Investment, 2013). Though many marketing strategies and policies have been implemented, they seem to have not brought significant results. Tourism information sources, as one of the primary factors that affect travel decision-making, have not been managed seriously, especially towards international tourists. Thus, this research makes necessary contributions to the body of knowledge concerning TIS and tourism problems in Indonesia.

Information is vital to influence and determine consumer behaviour (Maser and Weiermair, 1998) because the formation of a destination's prior-visit image- which determines the consumer behavior- among travelers is based on the information sources they use. On that account, information sources are the key to destination image formation and travel decision-making (Baloglu & McCleary, 1999).

Although the internet is becoming one of the most crucial information sources in the travel and tourism industry, this study shows that offline sources still prevail in travelers' information search strategies. Four major findings emerge from this research. First, the most important TIS for international tourists are user-generated content as well as interactive social media. This means international tourists prefer to get information about the destination they would like to visit from TIS where other people share testimony about their first-hand travel experience to the destination (experience-sharing) as well as from TIS where they can interact/get connect with other travelers. From thorough analysis of all six TIS attributes, this study empirically concludes that for online TIS, the most important sources are interactive social media that are video and photo sharing and mobile applications. And for offline TIS, the most important sources are television and friends and family (WOM).

Secondly, though it is revealed that the most important and used TIS are online TIS, in practice during information searching, international tourists tend to mix the TIS they use, both online and offline.

Thirdly, the fundamental rationales behind this selection of interactive social media and user-generated content by international tourists are (1) the TIS coming from unpaid real customers who can give unbiased information and real first-hand experience information/testimony/recommendations; (2) the TIS provide services where users can connect/interact to each other; (3) the TIS have visual effects or using appealing photos and videos as the main product of tourism is a sight-seeing product; (4) the sources give more security in terms of quality of the information as well as protecting the personal information of the users. It appears in the results above that official websites are also superior in this feature; (5) the TIS are convenient and easiest to use; and (6) the TIS are relatively low-cost.

Lastly, this study interestingly reveals that there are two cohorts of destination attributes successfully constructed by TIS: the non-nature and culture attribute, and the nature and culture attribute. From this finding, we can assume that Bali's image in international tourists' mind is not only prominent for its natural beauty and amazing culture but also other attributes related with entertainment, accessibility and affordability. The findings also show that the TIS that have successfully constructed destination attributes are user-generated content and interactive sources.

The Internet has essentially transformed the way tourism information is shared and the ways people plan their travels (Buhalis and Law 2008). However, from the findings discussed above we can see that people still need accurate information from the real experience of customers and also need to be connected with other tourists while searching for information.

Identifying international tourists' behavior towards sources of information is crucial to understand the needs, reasons and tendencies of tourists. This then allows governments and businesses to incorporate such understanding into the development of effective and efficient tourism policy and marketing communication strategies and campaigns (Dey and Sarma 2010; Xiang and Gretzel 2010). The success of any marketing effort requires marketers to ensure they provide accurate information and features desired by their potential visitors (Xiang and Pan 2011). Therefore, it is essential for policy makers and marketers to identify the information sources consulted by tourists.

### ***5.1. Implications***

The primary purpose of this paper is to offer suggestions to policy makers and tourism managers in Indonesia regarding tourism policy and marketing strategies related to tourism information sources. Several previous marketing and promotion strategies have been implemented in Indonesia that do not significantly attract international tourists and gain the potential revenue. From the literature and empirical findings discussed, this study discovers that tourism information sources (TIS) are key to attracting more significant international tourists, as TIS are the primary factor to tourist's decision making. Thus, following are several policies and managerial implications offered to related stakeholders regarding TIS.

Results obtained suggest that international tourists prefer to use interactive and user-generated content information sources. The most important online TIS revealed in this study are photo and video sharing portals, mobile applications, tourist social network and social media. As for offline TIS, this research discovered that television and recommendations from friends and family (WOM) are the two primary TIS for

international tourists. Thus, policy makers and businesses should focus on interactive and user-generated content sources to better attract international tourists to Indonesia.

The world is going beyond online as part of what is known as the fourth industrial revolution. This revolution describes the current phenomenon of how digital technology is reshaping how people make decisions and enhancing customer experiences (Das et al., 2016). More and more countries now updating their traditional marketing strategies and policy and embracing digitization for their industries. This shift also holds true for the tourism industry.

This section will discuss two countries- New Zealand and Australia- who have modernized their tourism policy and marketing strategy and have proved that using online and digital information sources significantly contributes to tourism growth. This is to show that focusing on interactive social media and user-generated content increases the number of international tourists and receipts. The aim is to give ideas or inspiration to develop a policy and strategy on online and digital utilization of technology for tourism information sources in Indonesia.

For Australia, tourism is considered a main industry for economic growth, and the advantages of online and digital technologies for tourism have led to a strong role in the policy context for encouraging technology uptake. Therefore, in 2009, the government has developed a national online tourism policy called NOST. The purpose of the National Online Strategy for Tourism (NOST) is to significantly raise the online distribution and visibility of Australia's tourism product in global market. It gives a plan for the digital enablement of the tourism sector that will make sure Australia surpasses in the promotion and distribution of tourism products online (Australian Government, 2009).

Methods of communication with tourism consumers have transformed significantly in the last 10 years and traditional distribution channels have assembled with digital channels. Online bookings in Australia have upgraded from 5% in 2001 to almost 35% in 2008 at an average annual growth rate of 34.6% (Australian Government, 2009).

International tourism also demonstrates a significant role in the New Zealand economy. To achieve its tourism goals, New Zealand is focusing tourism policy and communication strategy toward a digital approach. The approach has included its well-known country brand: '100% Pure New Zealand'. New Zealand has substantially shifted broadcast media to digital media to target better market segment and measurability. The country has also accelerated usage of social media to promote New Zealand (across pre, during, & post visit periods), increase use of paid Web searches (SEM) and the rebuilding of NewZealand.com to ensure better natural (algorithmic) search results, the first country to use mobile Web for promotion and to increase tourist experience, building prospective visitor lists, and the use eCRM to turn interest to purchase. In short, they are focused on investing to develop a comprehensive digital platform that will take 100% Pure New Zealand globally.

Tourism New Zealand's advertising is advancing from print and billboard advertising. This is with the purpose of greater use of technology to reach its target audience wherever they are. This means taking up new media such as mobile technology, social media, and online advertising.

The easiest way to see New Zealand's great online and digital strategy is through its world-class travel website [www.newzealand.com](http://www.newzealand.com). It is New Zealand's policy to make the website as the main way to provide information for international visitors and also to link consumers with travel sellers. The site offers interactive planning tools,

special travel deals, operator catalogs, comprehensive information about New Zealand, and interesting pictures and designs all over the website. The website is very comprehensive in information and services as well as interactive. The website has twice rewarded as the best tourism site in the world in the international Webby Award (“What We Do”, 2020).

As for Indonesia, to improve its communication methods or specifically tourism information sources to online and digital will require a big step. This is particularly so as Indonesia is constrained by limited access to technology. ICT infrastructure is weak and internet penetration is low (Das et al., 2016). In ICT Readiness, WEF ranked Indonesia in position number 67, far below Malaysia 44 and Thailand 49 (Forum, 2019).

However, this big step must be taken. To win in this digital age, especially for developing the tourism sector- its one of the main income generators-, the Indonesian government must focus on increasing the spread of internet penetration and more evenly spreading access to all tourism destinations.

As for offline TIS, television and WOM, Tuclea and Nistoreanu (2011) conclude that movies and television series are influential to emphasizing the appeal of the destination and builds top-of-the mind awareness. Their study shows several films that impacted on tourism, such as Braveheart, that increased visitor numbers to Scotland by 300% within a year of release, and Harry Potter, that increased visitors by 50% in all film locations (various location in UK), along with many other films. They argue that both movies and television series act as an image-making tool, increasing the attractiveness of tourism destinations. Tourism in New Zealand has also flourished thanks to the Lord of Rings trilogy. The country conducted a huge marketing campaign aimed at making the country look like “middle-earth” (“The Rise of Destination”, 2013).

Word of Mouth remains indeed one of the most powerful marketing tools. Recently, working together with respected influencers such as opinion leaders, writers and thinkers who endorse tourism destinations has become a trend in promoting national and international tourism effectively. The credibility of the influencer is the key that makes their word of mouth powerful and effective (“What We Do”, 2020).

## ***5.2. Limitations and Future Studies***

While this study contributes to fill a gap in existing knowledge and does propose some implications for policy makers and practitioners, limitations remain. This research used attributes of online TIS since there is no study or theory of offline TIS attributes yet. Therefore, it will be beneficial for future studies to consider offline TIS attributes to know whether there is any difference between online and offline TIS attributes.

Moreover, because the sampling method used was non-probability (convenient sampling), a future study with more comprehensive sampling technique and larger sample size could be carried out to get a more precise idea.

## Appendices

### Appendix A. Respondent Characteristics

<u>Respondent Characteristics</u>		<b>Freq.</b>	<b>Percent</b>
Employment Status	Employed, working full-time	56	33.86
	Employed, working part-time	8	44.09
	Not employed, NOT looking for work	1	6.30
	Not employed, looking for work	4	0.79
	Parent/homemaker	1	3.15
	Retired	2	0.79
	Student in secondary education	1	1.57
	Student in tertiary education	11	0.79
	Gender	Female	53
Male		31	24.41
Age	18 to 24	7	5.51
	25 to 34	36	28.35
	35 to 44	23	18.11
	45 to 54	10	7.87
	55 to 64	7	5.51
	65 or older	1	0.79
Education	3 years of college	1	0.79
	Completed graduate school	32	25.20
	Doctoral degree	3	2.36
	Graduated from college	22	17.32
	Graduated from high school	5	3.94
	Professional degree	10	7.87
	Some graduate school	10	7.87
Job	NGO	4	3.15
	Private Sector	48	37.80
	Public Sector	23	18.11
	Retired	1	0.79
	Student	5	3.94
Job Role	Director	5	3.94
	Individual Contributor	14	11.02
	Intern	3	2.36
	Management C-level	1	0.79
	Manager	15	11.81
	Owner	3	2.36
	Partner	1	0.79
	Senior Manager	7	5.51
	Staff/Officer	23	18.11
	Study	6	4.72
	Volunteer	1	0.79

		<b>Freq.</b>	<b>Percent</b>	
Income	\$0-\$24,999	17	13.39	
	\$25,000-\$49,999	19	14.96	
	\$50,000-\$74,999	11	8.66	
	\$75,000-\$99,999	7	5.51	
	\$100,000-\$124,999	8	6.30	
	\$125,000-\$149,999	1	0.79	
	\$150,000-\$174,999	2	1.57	
	\$200,000 and up	5	3.94	
Ethnicity	African	1	0.79	
	Indian or Alaskan	2	1.57	
	Asian	30	23.62	
	European	1	0.79	
	Hispanic	4	3.15	
	Italian/Norwegian American	1	0.79	
	Melanesian	1	0.79	
	Prefer not to answer	8	6.30	
	White	32	25.20	
	White European	1	0.79	
	mixed race	1	0.79	
	Country	Australia	10	7.87
		Austria	1	0.79
Cambodia		4	3.15	
Canada		2	1.57	
China		2	1.57	
Ecuador		1	0.79	
France		1	0.79	
Germany		1	0.79	
India		1	0.79	
Ireland		1	0.79	
Japan		1	0.79	
Jordan		1	0.79	
Malaysia		5	3.94	
Myanmar		2	1.57	
Netherlands		10	7.87	
New		1	0.79	
Norway		1	0.79	
Philippines		3	2.36	
Republic of Korea		7	5.51	
Singapore		6	4.72	
Spain		2	1.57	
Sweden		4	3.15	
Switzerland		7	5.51	
Thailand		1	0.79	
United Kingdom		3	2.36	
USA		6	4.72	

		<b>Freq.</b>	<b>Percent</b>
Relationship Status	Divorced	3	2.36
	In a domestic partnership	3	2.36
	Married and have child	24	18.90
	Married without child	10	7.87
	Separated	1	0.79
	Single but cohabiting	6	4.72
	Single never married	32	25.20
	Widowed	1	0.79
Number of Visit	1	65	51.18
	2	13	10.24
	3	9	7.09
	4	7	5.51
	≥ 5	33	25.98
Method of Visit	Backpacking	3	2.36
	organized	44	34.65
	Tour package	47	37.01
Objectives of visit	Both	13	10.24
	Business	9	7.09
	Pleasure	102	80.31
	Studying	1	0.79

## *Appendix B. Survey Questionnaire*

### **Tourism Information Sources Survey (A Case Study of Bali)**

Welcome to My Survey

This survey is conducted for academic research (thesis) Thank you for participating. Your feedback is important.

#### **A. Bali as a tourist destination**

1. How many times have you visited Bali?
  - 1 time
  - 2 times
  - 3 times
  - 4 times
  - ≥ 5 times
2. When was your latest visit to Bali? (year)
3. How long did you stay in Bali during your latest visit? (days)

4. Main objectives of the latest visit
  - Business
  - Pleasure
  - Both
  - Other (please specify)
5. What method did you use for your last trip to Bali?
  - Backpacking
  - Tour Package
  - Other (please specify)
6. What activities did you do in your last visit to Bali? (Multiple responses allowed. Don't have to answer all)
  - Visiting natural landscape
  - Visiting historical sites
  - Shopping
  - Gastronomy
  - Enjoying city scenery
  - Seeing cultural and traditional attractions
  - Visiting museums
  - Visiting art center and galleries
  - Visiting (water) theme park
  - Enjoying night life
  - Yoga, meditation and religious activities
  - Spa
  - Sport activities
  - Scuba diving
  - Snorkeling
  - Participating in leisure activities
  - Participating in business activities
  - Working
  - Other (please specify)
7. Why did you choose Bali as your preferred destination? (You may choose multiple options)
  - Beautiful nature/landscape
  - Rich of tradition, art, and culture
  - Fun night life

- Tasty foods
  - Friendly and helpful Indonesians
  - Good facilities
  - Good reputation of Bali
  - Diverse tourist attractions
  - Affordable
  - Accessible
  - Modern
  - Other (please specify)
8. How did you get the information about Bali in the previous question #7? (Multiple responses are allowed)
- Blogs
  - Company websites (hotel, agoda, etc.)
  - Public/government website
  - Social media (Facebook, Twitter, Travellerspoint, etc.)
  - Search engines
  - Application on mobile phone
  - Video-sharing portals (e.g. YouTube)
  - Photo-sharing portals (e.g. Instagram, Flickr, etc.)
  - Friends and family
  - Television
  - Brochure, book, magazine, newspaper
  - Travel Fair
  - Travel Agent/consultant
  - Other (please specify)
9. What was your image of Bali before and after your visit (your perceived image versus reality was the same or different?)
- Same
  - Different
10. Do you have any suggestions or ideas to improve Bali as a tourism destination?

## **B. Online and offline tourism information sources**

11. Did you look for the following information about Bali prior to the trip? Yes/No (Y/N). If so, how easy was it to find it? Easy/Not Easy (E/NE)

12. Where did you get the information in the previous question #11?

- Blogs
- Company websites (hotel, agoda, etc.)
- Public/government website
- Social media (Facebook, Twitter, Travellerspoint, etc.)
- Search engines
- Application on mobile phone
- Video-sharing portals (e.g. YouTube)
- Photo-sharing portals (e.g. Instagram, Flickr, etc.)
- Accommodation portals
- Tourist resources and activities portals
- Friends and family
- Television
- Brochure, book, magazine, newspaper
- Travel Fair
- Travel Agent/consultant
- Other (please specify)

13. What medium did you use most often to get the information online?

- Laptop
- PC (desktop)
- Tablets
- Smartphone
- Other (please specify)

14. How well did the tourism information sources you used meet your information needs about the trip to Bali?

Not useful at all 

1	2	3	4	5
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 Very Useful

15. How would you rate the quality of information (accuracy & reliability) you got from these tourism information sources?

Very low quality 

1	2	3	4	5
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 Very high quality

16. How visually appealing is the tourism information source you used?

Not appealing at all Very appealing

1	2	3	4	5
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17. How do you rate the security (e.g. privacy, pc virus, etc.) of these tourism information sources?

Very not secure

1	2	3	4	5
---	---	---	---	---

Very secure

18. How easy was it for you to access the tourism information sources?

Very difficult

1	2	3	4	5
---	---	---	---	---

Very easy

19. How would you rate the cost of using these tourism information sources?

Very costly

1	2	3	4	5
---	---	---	---	---

Very cheap

20. How responsive are these tourism information sources? (definition of responsive: quick response between the users and the administrators/real-time feedback in sharing information or idea.

Least responsive

1	2	3	4	5
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Most responsive

21. How likely are you willing to use these tourism information sources again for your next trip?

Very unlikely

1	2	3	4	5
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Very likely

22. Do you have any suggestions to improve the tourism information sources related to Bali?

**C. Socio-demographic characteristics**

23. What is your gender?

- Female
- Male

24. What is your age?

- 17 or younger
- 18 to 24

- 25 to 34
  - 35 to 44
  - 45 to 54
  - 55 to 64
  - 65 or older
25. What is the highest level of education you have completed?
- Did not attend school
  - 11th grade or less
  - Graduated from high school
  - 1 year of college
  - 2 years of college
  - 3 years of college
  - Graduated from college
  - Some graduate school
  - Completed graduate school (Master Degree)
  - Doctoral degree
  - Professional degree
  - IVT (Institutions of Vocational Training)
26. Which of the following categories best describes your employment status?
- Employed, working full-time
  - Employed, working part-time
  - Not employed, looking for work
  - Not employed, NOT looking for work
  - Retired
  - Disabled, not able to work
  - Parent/homemaker
  - Student in secondary education
  - Student in tertiary education
27. What is your job?
- Private sector
  - Public sector
  - Other (please specify)
28. What is your job role?
- Individual Contributor

- Team Lead
  - Manager
  - Senior Manager
  - Regional Manager
  - Vice President
  - Management / C-Level
  - Partner
  - Owner
  - Volunteer
  - Intern
  - Other (please specify)
29. What is your approximate average household income per year?
- \$0-\$24,999
  - \$25,000-\$49,999
  - \$50,000-\$74,999
  - \$75,000-\$99,999
  - \$100,000-\$124,999
  - \$125,000-\$149,999
  - \$150,000-\$174,999
  - \$175,000-\$199,999
  - \$200,000 and up
30. What is your ethnicity? (Please select all that apply)
- American Indian or Alaskan Native
  - Asian or Pacific Islander
  - Black or African American
  - Hispanic or Latino
  - White / Caucasian
  - Prefer not to answer
  - Other (please specify)
31. In what country do you live? (select country option)
32. What is your current relationship status?
- Married and have child (children)
  - Married without child
  - Widowed

- Divorced
- Separated
- In a domestic partnership or civil union
- Single, but cohabiting with a significant other
- Single, never married

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