

THE IMPACT OF SUSTAINABILITY ON DESTINATION BRAND EQUITY

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ABSTRACT

The subject of the thesis is an exploratory research on the impact that sustainability has on a tourism destination brand equity. As increasing development of tourism destinations around the globe becomes a significant source of wealth, prosperity, cultural exchange, innovation, human interactions and activities, there is a growing interest to use modern marketing and branding strategies, traditionally used in businesses. However, at the same time there is a growing concern how to balance the increasing demand for tourism resources with the limited carrying capacity of the environment and host population. Moreover, the literature on the tourism destination brand development shows deficiency in understanding the multifaceted and multidimensional relationships between the tourism destination brand development and the elements of destination sustainability.

In that regard, this thesis addresses the existing gap in tourism literature by introducing a model that highlights impact of the elements of destination sustainability: economic, social and environmental on the elements of destination brand equity awareness, image, quality and loyalty.

Tourism destination brand equity and destination sustainability are well-studied themes by the research community. To better understand these two seemingly different concepts this thesis proposes a possible single common model that can serve as a platform for analyzing the relationships between the concepts. Since destinations cannot be placed or sold on the market, the value of the destination brand equity must be tied to the proxy indicators. The universality of the model is empirically confirmed by the global cross-national and multi-country indexes from (N=124) countries, obtained from nineteen global databases. The robustness of the model is further tested using the empirical survey data (N=368) from a case of Serbia

The results of the multivariate analysis show that social and environmental elements are the most dominant in a sustainable destination brand equity development, suggesting an area of focus for investors and developers. Also, the results show that the social part has a significant impact on the brand equity dimensions as well as on the other elements of destination sustainability.

The major goal of the thesis is to explore a) relationships between the elements of tourism destination sustainable development effort and the elements of the destination brand equity, b) impact that the elements of sustainability have on the elements of destination brand equity and c) specific outcomes because of the interaction of the elements.

Therefore, based on the findings, the thesis suggests that both sustainability and destination brand equity developments are tied together and should be done in parallel as one common process in the long run. Moreover, the strong impact of the social sustainability element on all aspects of the brand equity development confirms the influence of sustainability on the tourism destination development. Hence, the proposed model provides destination developers and authorities with a tool for evaluating, analyzing and implementing comprehensive destination development strategies that will fulfill destination promise and, at the same time, preserve resources and enhance the local way of living.

Keywords: tourism destination brand equity; sustainable development; Serbia; multivariate analysis; impact of sustainability on brand equity.

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1. INTRODUCTION

1.1. Background and Problem Area

The growing interest in tourism is a global phenomenon that all over the world is causing tourism destinations continents, regions, countries, cities, islands, and etc., to engage in developing branding activities that will strategically make them attractive to the ever-growing number of tourists. These activities are putting a pressure on the authorities to expand capacities of current destinations and create or discover the new ones. As the number of tourists increases there is a growing threat from overtourism which would seriously challenge destinations' ability to satisfy the demand and, at the same time, preserve the natural environment and the way of life in the local communities.

On the good side, tourism brings employment, economic wealth, development, cultural exchange, vision for future development, and knowledge. However, tourism puts pressure on the natural, cultural, and created resources with the consequence of deteriorating the everyday life of the residents as well as the quality of experience of tourists. On the downside, tourism brings crime, drugs, noise, pollution, water shortages, and overcrowding. Going overboard with the consumption of a destination resources could permanently deteriorate attractiveness of a destination and downgrade its brand equity. Tourism destinations, unlike products, have their value only if there is a reasonable expectation that they will be there in the future and still be able to attract visitors by offering their resources for consumption (Crouch, 2010). In other words, for a destination to sustain its brand equity in the future, even at the times of global economic instabilities, it is mandatory to preserve their long-term health. This must pertain to the socio and environmental factors of the destination (Gartner, 2014).

Recently, sustainable destination development practices have become more complex because of the increasing number of destination stakeholders and their diverse interests (Qiu, Fan, Lyu, Lin, & Jenkins, 2019). Consequently, sustainable development of tourism destinations, in the today's global marketplace, requires development of a destination brand equity under the umbrella of preserving or increasing the value of tangible and intangible destination resources to the future generations. Only recently, this topic has started to gain attention to the scholars and researchers.

Furthermore, the concept of brand has been around for as long as the market-driven practices existed. Marketers throughout the centuries always tried to make the process more efficient. Brands, offering multiple features, become quickly popular and remain the mainstream of marketing until today. However, branding a destination is a new concept. Adopting the Kotler's (1991, p. 442) definition that brand is 'a symbol, name, term, sign to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors', reveals that branding has been the concept marketers used for a very long time. Consequently, the brand name concept, as a pillar of branding, is a historical concept. The purpose for differentiating destinations is to strengthen expectations of the unique experience and attractiveness of a destination. Destination branding strategies are adopted by tourism destinations as means to increase destination attractiveness, articulate destination identity through uniqueness of the destination's tangible and intangible attributes, to convey an original value proposition of a destination, attract new visitors, stimulate positive word-of-mouth, increase repeated visitation and to invigorate tourists to pay premium price.

In the traditional product-based marketing, the brand equity emerged as the most important marketing concept in the late 1980s, causing a proliferation of ideas on how to conceptualize and operationalize the brand equity concept (Aaker, 1991, 1996; Erdem, Swait, & Valenzuela, 2006; Keller 1993). However, because of different methods and concepts, there was no common scientific view on how to explain dimensions of brand equity, important factors, study aspects and measuring methodologies. The only agreement was on the multidimensionality concept of the customers' perceptions of the brand's value (Aaker, 1991; Erdem et al., 2006; Gartner, 2014; Keller 1993, 2013; Konecnik & Gartner, 2007). Nevertheless, brand equity became a well-defined concept in the research and academic community. Brands obtain their value in the marketplace as a difference between the sale of a product with a brand name or symbol and the same or similar no-name product (Simon & Sullivan, 1990; Keller, 1993). This difference in value becomes obvious and pronounced when a company franchises its products to another company. What sells the product is its customer base, product features, supply, know-how, potential earning and reputation in the marketplace all encapsulated into the brand name along with the associated brand elements. The added values create a chain of identity vision that leads to a formation of the brand image (Gartner, 2014). The brand receives its value from the customers' perception of the performance, relevance, stability and quality of the brand, enhanced by the response to the marketing strategy (Keller, 1993).

Adding greater value to the firm is considered a major asset behind brand equity, followed by commanding higher margins, increasing competitive advantage and improving trade leverage and brand extension.⁴⁴ Besides, brands increase value to the firm because of the augmenting loyalty caused by brand equity dimensions, such as awareness, image and perceived quality (Kladou, Giannopoulos, & Mavragani, 2015). Benefits of brands with high brand equity are that they create competitive advantage in the marketplace, resist promotional pressure from the competition, impose barriers⁵⁶ for competitors to enter the market, and create opportunities for brand development. Aaker (1991, 1996), defined brand equity as a set of assets and liabilities linked to a brand. Aaker proposed a model that captures image, assets, quality, awareness and loyalty as the main⁴⁹ elements. Consequently, the customer-based brand equity (CBBE) model, conceptualized by Aaker's (1991, 1996) and Keller's (1993) quickly became the most recognized and commonly used paradigm by the research community (Konecnik & Gartner, 2007; Myagmarsuren & Chen, 2011; Pike, Bianchi, Kerr, & Patti, 2010), and is used in this thesis.

1.1.1. Tourism and Brand Equity

Since its introduction in the late 1990's destination branding, as a new concept, quickly captured the interest and attention of the destination marketing research community (Morgan, Pritchard, & Pride, 2002; Cai, 2002; De Chernatony & Dall' Olmo Riley, 1999)..

Measuring and tracking destination brand equity soon became the mainstream of the research effort. Another view is that the value generated by the marketing effort and the future destination functioning remain insufficiently covered in the research literature. Since inception of the initial concepts and methodologies on the general tourism destination marketing an ample body of scientific literature proliferated on the topic (e.g., Aaker, 1991, 1996; Keller, 1993; Berry, 2000). The "brand equity" remains the elusive and in completed area with disagreements

on definitions and proliferations of methodologies with the only consensus that the concept is multidimensional and that it represents added value empowered by the brand (Gartner, 2014; Christodoulides & de Chernatony, 2009; Kladou, Kavaratzis, Rigopoulou, & Salonika, 2017)).

Eventually, the CBBE concept became the most popular model for evaluation of the destination brands (i.e., Bianchi, Pike, & Lang, 2014;; Chen & Myagmarsuren, 2010; Gartner & Konecnik Ruzzier, 2011; Horng, Liu, ; Kladou & Kehagias, 2014; Pike et al., 2010). Soon, Keller's (1993) and Aaker's (1991,1996) formulation of the customer-based brand equity model became the most popular.

According to Gartner (2014) the CBBE model is based on the Boulding's (1956) publication of image theory based on multidimensional memory structures such as loyalty, awareness, image and quality. Likewise, alternative conceptualizations of the CBBE models were offered by Evangelista & Dioko (2011), and García, Gómez, & Molina, 2012).

The benefits of the destination brand equity are that it makes destinations different by means of name and brand symbols, associates unique positive experiences to tourism destinations, reinforces emotional relations between visitors and tourism destinations, and reduces research expenses and visitors' perceptions of risk (Blain, Levy, & Ritchie, 2005). Aaker's (1991, 1996) and Keller's (1993, 2013) concepts of the CBBE offer to destination marketers a set of tools for performance evaluation and positioning in the marketplace (Pike, et al., 2010). However, the study of destination branding strategy has been overshadowed by the spread of the literature on destination image, causing a proliferation of studies on destination image in comparison to a few that are concerned with destination brand equity (Kladou et al., 2015). Nevertheless, the Aaker's model further expands the notion of brand equity by indicating the importance of awareness, perceived quality and loyalty (Blain et al., 2005; Gnoth, 2002; Morgan, et al., 2002). Initially, loyalty and quality were considered as isolated subjects while awareness was the outcome of Boulding's cognitive element of image (Keller, 1993; Milman & Pizam, 1995; Oppermann, 2000; Weiermair & Fuchs, 1999).

The review of the relevant literature reveals that tourism marketing researchers adopted the term 'destination brand equity' borrowed from the product and corporate brand literature (Aaker, 1991; Keller 1993). Keller (1993) suggests that CBBE happens when customers are aware of the brand and exhibit strong, favorable and unique associations that can lead to repeat buying behavior that positively impacts brand loyalty. Likewise, high levels of brand equity may result in higher sales, increase in attitudinal loyalty reflected in the willingness to pay price premiums, lower cost, purchase intent and customer loyalty (Aaker, 1991, 1996; Keller, 1993). The intricate nature of tourism destination brands makes evaluation of a tourism destination brand equity complex. Each destination has its own unique set of tangible and intangible features that are perceived by tourists as a combination of emotional and functional components of the brand equity (Aaker, 1991; Boo, et al., 2009; Konecnik & Gartner, 2007). Depending on what tourists perceive as attractive and important features differentiates a destination and creates its unique position in the tourism marketplace. Measurement methods and the composition of a tourism destination brand equity are new to researchers and are still subject to debate (Ferns & Walls, 2012). On the other hand, Boo et al. (2009), Pike (2009), and Gartner (2009) agree that measuring destination brand equity in the tourism context is an intricate process, additionally complicated by the multidimensionality and complexity of the constituting elements. Since CBBE theory offers some alleviation of the complexities in measuring, its

absence could result in the proliferation of the CBBE equity concepts and disagreements on the CBBE model structures and selected scales.

Similarly, tourism destination brands share many of the same features with the product brands but differ in several critical aspects. Destinations are dynamic entities that constantly change and are subject of seasonal and cyclical fluctuations. It is the change that makes destination significantly different from traditional products. Similarly, destinations are multidimensional constructs and mean different things to different people. Also, destinations have different shareholders with different interests, levels of ownership and points of view. Unlike products, destinations are experiential entities that cannot be returned if not satisfied. Other significant difference is that a destination cannot be sold in the marketplace which a priori makes them one of a kind. It is unlikely or impossible, to find a destination that will serve as a reference point for measuring brand equity of another destination. Consequently, measurement of the destination brand equity cannot be readily obtained. Therefore, the destination value must be deduced from other variables such as receipts, visitation, taxes, spending, consumption etc., all of which make a destination a very risky subject. Similarly, many scholars are raising questions if the destinations are in fact marketing entity (Gartner, 2014, Konecnik & Gartner, 2007).

Therefore, direct use of the product-based CBBE without adjustment to the specific dimensions that are more tourism specific or destination specific will cause leaving behind the point that is relevant to the tourism destination research resulting in missing managerial pertinence of the model (Gartner, 2014).

Konecnik & Gartner (2007) were the first to conceptualize brand equity of a tourism destination. The authors applied the elements of the image theory, developed by Gartner (1993), better known as cognitive, affective and conative components to the Aaker's (1991, 1996) brand equity model. According to Konecnik & Gartner (2007), the cognitive image is related to the destination awareness or the strength of a person's knowledge about the destination. The affective part points to the emotional experience of a destination while conative part makes a person act based on the knowledge and emotions about the place.

Pike (2007) researched the success levels of the destination branding campaigns conceptualizing the customer-based brand equity CBBE, based on Aaker's (1991, 1996), and Keller's (1993, 2013) models, using brand salience, brand associations, brand resonance, and brand loyalty. Further direction for conceptualizing brand equity was to link the desires and expectations of the tourists with the attributes of the destinations and to successfully deliver the brand promise (Lim & Weaver, 2014; Nam, Ekinci, & Whyatt, 2011; Pike, 2007; Usakli & Baloglu, 2011).

Konecnik & Gartner (2007) were the first to apply CBBE model on tourism destination. The authors evaluated Slovenia based on the empirical survey of the population in Germany and Croatia and suggested that besides similarities in many areas there are significant differences in the others. Konecnik & Gartner (2007) found that Germans have high regard for Slovenia as tourism destination. The strong image of Slovenia is based on the perception of small tranquil and peaceful cities and villages surrounded by a beautiful landscape, mountains, seashore, historical points and pleasant people. On the other hand, in the minds of the Croatian visitors, image, quality and loyalty are influenced by the same factors, however, with different outcome. The time since the last visit, which was highly pronounced in the German survey,

proved irrelevant in the Croatian case. Also, awareness of the Slovenia was very high and important for German market, but not in the Croatian market which placed more emphasis on the image part. In the case of Slovenia, we see that it means different things to different markets and market segments. In this case, Slovenia was positively perceived by both German and Croatian tourists but with different outcomes in the critical areas such as behavioral and attitudinal loyalty. Besides obstructions in evaluating tourism destination brand equity there are possibilities to explore further the underlying components of the destination brand equity (Gartner, 2014). Consequently, the perception of the destination value requires paying attention to the multi-dimensional framework of the associations involved.

1.1.2. Tourism and Sustainability

In 1987, UN Brundtland Report, issued by the World Commission on Environment and Development (WCED, 1987), has formally introduced sustainability in the global development agenda including tourism. The report gave priority to resource management and conservation over unrestricted economic growth and profit-based economic strategies (Espiner, Orchiston, & Higham, 2017; Mitchell, Wooliscroft, & Higham, 2013; Young, Markham, Reis, & Higham, 2015). The basic principle outlined in the sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). Despite its global attractiveness this definition posed an ample of challenging issues that were further mystified by the fast pacing and everchanging global world (McCool, Butler, Buckley, Weaver, & Wheeller, 2013). Among many concerns, the most important ones are what is sustained, and how to make development sustainable. The three most important pillars of the principles of sustainability are economic, social and environmental elements to form the bases for evaluations of sustainable tourism.

Initial studies on sustainable tourism were focused on local impacts of tourism (Hall & Page, 1999). Soon after, the focus shifted to more critical evaluation of the environmental impacts and social issues. In the following years, the sustainable tourism has been concerned with questions about spatial (local-to-global) and temporal (longevity) measurements (Hall, 2007).

Next, McCool et al. (2013, p 217), argue that the sustainability models at the end of the 20th century were based on the premises that the world was stable, predictable and understandable. However, accelerating climate change mostly altered the old thinking, causing the shift in the spatial-temporal understanding of the sustainable practices. Also, climate change has imposed new frames of reference for the sustainable tourism scientific community to adopt a new way of thinking based on the global environmental and social change (Higham, Cohen, Peeters, & Gössling, 2013).

To better understand how tourism destination industry has developed it became a paramount to understand the environment as well as the economic and social forces required for any growth and development. In that regard, we must consider brand equity of a tourism destination or its long-term value and attractiveness in the same way that we look at the development of sustainability (Gartner, 2014; Buckley, 2012, Crouch 2010, Iniesta-Bonillo, Sánchez-Fernández, & Jiménez-Castillo., 2016; Cottrell, Vaske & Roemer, 2013).

Buckley (2012) points to about 5000 relevant papers that deal with the global tourism but argues that very little consider global research in sustainability development as a guideline. His conclusion is that the tourism destination industry at the end of the first decade of the 21st century was not sustainable. Further, the same author believes that the sustainability in the tourism industry was driven by the regulations and less by marketing scenarios. Besides, there was a significant lobbying by different parties to tap into the untouched natural resources to accommodate the global growth of tourism. Consequently, there was a growing problem how to accommodate the expanding and popular industry such as tourism, and at the same time, protect the growing number of tourism destinations from exceeding their capacity.

Because of the complexity of the tourism systems some sudden and incremental chaotic events can swiftly cause disintegration of the tourism environment because of their vulnerability to the outward threats that include social, political and economic background.

On the demand side, there are shifts in tourists' preferences, desires, buying power, interests, demographics and perceptual levels that could either reduce or increase the interest in and expectations of a tourism destination. Showing and dealing with such complex, heterogeneous issues could represent a major challenge to both tourism practitioners and academics (Espiner et al., 2017). Therefore, it is a paramount for the development of tourism destinations to recognize and incorporate these complexities into their development paradigms. Gartner (2012) states that since destinations are unique and cannot be purchased in the marketplace there is no other destination that can serve as a "generic" reference point for destination brand equity valuation. Consequently, the same author suggests that the value of a destination from tourists' perception must be determined indirectly by other means, such as repeat versus first visit rates, expenditures and arrivals of tourists. Gartner argues that in the long-run context destination brand equity must be measurable to confirm the desired outcome. He points that destination economic variables such as receipts, arrivals, wages, taxes to governments and profits can be considered in quantitative form. In the same way, environmental variables such as water and air quality can be measured in similar fashion. However, for social variables, because of the difficulties in measurement, some variables must use proxy indicators such as life longevity, overall health, and standard of living inter alia.

Buckley (2012) states that different impacts on tourism must be measured and managed and suggests indicators for economic (regional economies, poverty), social (net gains, welfare, equity) and environmental (accounting measures) domains. Because of the on-going environmental and social changes which affect tourism, there is an ongoing effort to develop observable sustainability indicators for monitoring and managing tourism (Butler, 1991, 1999). (Buckley, 2012)

Simkins & Peterson (2015;) state that researchers and practitioners should take advantage of the increasing availability of the secondary data. However, a caution should be given to reliability and validity of such data since there is a limitation in quality which is innate to secondary sources (Malhotra, 1996). Houston (2004) argues that supporting and initial evaluation of "theories" using secondary data proxy and corresponding indicators is feasible. Similarly, Peterson & Malhotra (1997) point to analysis on how societies distribute costs and benefits by applying structural equation modeling on International Living's Quality of Life Index .

However, for a destination¹⁰ have a future, it first needs to be there. The underlying framework is that sustainability is essential for the long-term existence and survival of the humanity and the ecosystem services it depends on. The competitive consumption and biological reproduction, both driven by the evolutionary pressures of survival are the main reasons behind the impact on natural resources (Buckley, 2012). Sustainability assumes changes that societies need to make to reduce the impact on the resources and to balance out the regenerative capability with the demand.

Liu (2006) considers tourism as a suitable way of economic development for its efficient and straightforward way for entrepreneurial ventures, income and employment opportunities. Wilson, Fesenmaier, Fesenmaier & Van Es (2001) state that local tourism has advantage over manufacturing and other business strategies because it has direct relationship with the customers (tourists) and do not depend on large companies. However increased visitation, urbanization, and commercialization can bring prosperity to the local population but also can negatively impact the local way of life (Madrigal, 1993). According to McGehee & Andereck (2004) factoring in the local residents' input into the development can reduce the negative impact of the tourism.

Tourism development is a dynamic process which goes through several stages as defined by the destination cycle model as proposed by Butler (1980). According to Butler (1980), destination development process moves through five stages: exploration, involvement, development, consolidation, and stagnation. The changes, either positive or negative, happen in every stage of the stated process. Over time, these changes accumulated and initiated activation of the post stagnation steps to remedy negative impacts of the tourism development. Besides criticism, Buttlar's (1980) concept emerged as the most reputable tool for monitoring and tracking tourism development.

According to Allen, Hafer, Long, & Perdue (1993) evaluation of the residents' attitude towards tourism development must include overall tourism development activity in a destination including the level of economic prosperity as major factors. As development of tourism in destinations progress, theories based on the social science are implemented to explain the change⁴⁸ or evaluation of the exchange process between hosts and tourists.

The social exchange theory (SET) emerged as the most popular framework for examining, evaluating and monitoring of the perceptions' of the local residents towards tourism development (Nunkoo & Gursoy, 2012; Wang & Pfister, 2008; Diedrich & García-Buades, 2009; Vargas-Sánchez, de los Ángeles Plaza-Mejía, & Porras-Bueno, 2009; Nunkoo, 2016). According to SET, residents are willing to accept tourism development if perceived benefit overcomes the perceived cost from doing it (Ap, 1992; Nunkoo, 2016). In other words, residents are willing to exchange potential sacrifices for the perceived future gains. In the context of tourism, if residents of a destination perceive that economic, social and environmental benefits of making their community "tourism friendly" exceeds the cost related to tourism they will approve development and will be open to accept the changes caused by the impacts from tourism traffic, infrastructure development, pollution, noise, crowdedness, crime, drugs, alcohol, commercialization of their environment as well as inappropriate management of a destination.

The economic impact of a destination is a measure of resource consumption (Buckley, 2012). Traditionally, economic influence is reported as the number of visitors and tourism

spending. The popular measure of prosperity is per-capita spending on tourism goods and services, and the contribution to taxes from tourism activities (Dwyer, 2018). In the long-run, economic development is a result of the growth at the expense of the environment (Buckley, 2012). The economic impact of a destination is the value a destination gets from receipts from the consumption of the destination resources which is related to both attitudinal and behavioral loyalty (Gartner, 2014; Dwyer, 2018).

The social impact of a tourism destination can be positive and negative. On the positive side tourism brings prosperity, employment, wealth, cultural exchange, knowledge, education, better health system, and higher standard of living, while on the negative side tourism causes increase of vandalism, change of local culture, pressure on local services, overcrowding, traffic congestion, increase in prostitution, crime and use of narcotics, destroying the local way of life and traditional values (Buckley, 2012). To counter these impacts local communities rely on either government regulations or individual policies of the social organizations with objectives to improve, healthcare, education, standard of living, human rights, legal environment, preservation of natural resources, heritage, safety, peace efforts, and emphasis on the holistic global solutions (Gursoy, Chi, & Dyer, 2010; Nunkoo & Ramkissoon, 2011; Latkova & Vogt, 2012).

Furthermore, the environmental impact of a tourism destination comes from environmental pollution, habitat destruction, litter, increased water usage, increased noise and smell, quality of air, destruction of wildlife and etc. Environmental conscious tourists and local residents perceive care for the environment, water consumption management, clean air, zero pollution, a hundred percent clean energy as a major effort in protection of ecosystems. The policy of reducing, used in the last decades, is rapidly becoming zero-usage or 100% clean. The tourists expect for environmental policies to be given, a standard, and part of the regulation, as opposed to differential factors in selecting one destination over another.

Technological, political and individual actions can change the economic, social and environmental elements. The actions can result in the increase or decrease of the destination brand equity. The policy makers can introduce laws, incentives, initiatives and innovation that can increase protection of the ecosystem, overuse of resources or pollution. Marketing activities can either increase individual consumption, further deteriorate environment or they can promote usage of more environmentally friendly products. Technology can open new markets for environmentally safer products and supply solutions that will reduce consumption. On the other hand, organizations can implement social responsibility programs and other green policies on their own with intention to cut the green advocates and circumvent or hinder the regulations. All these actions may result in predictable as well as in unpredictable outcomes that make any planning of the desired consequence very difficult.

A few studies have conducted deeper interest into the subject of social sustainability of a tourism destination (Qiu Zhang, Fan, Tse, & King, 2016). Several authors suggest that there has been a plethora of studies on the effects on tourism destinations but few concerning sustainability aspects of destinations. (Nunkoo & Ramkissoon, 2011; Andereck & Nyaupane, 2011; Ward & Berno, 2011; Latkova & Vogt, 2012; Nunkoo & Gursoy, 2012).

Connection between tourism and environmental issues became clear as both areas started to gain momentum in the research in the twenty first century. However, there are both on the collision path with each other since more tourism creates more impact on the environment and

the host population. On the other hand, protection of the resources reduces the potential for tourism expansion. However, researchers and scholars agree that the long-term value of a tourism destination depends on the sustainable use of resources that allows for the destination's resources to be inherited by a future generation in the same or better condition (Crouch, 2010; Gartner, 2014; Qiu Zhang et al., 2016). Further, the holistic marketing recognizes this concept as a mix of social, environmental and economic elements incorporated into the long-term value of a destination which is known as destination brand equity (Iniesta-Bonillo et al., 2016; Cottrell et al., 2013; Font & McCabe, 2017; Kim, Thapa, & Kim, 2017; Moise, Gil-Saura, Šerić, Eugenia, & Molina, 2019; Crouch, 2010). Also, Buckley (2012) proposes the evaluation framework for mainstream tourism industry. First, the framework is defined under five subjects: population, peace, prosperity, pollution and protection, and then it is used for the analysis of the tourism research literature. The rationale for the framework is that the overall human impact on the ecosystem activities and the survival of the humans is the major focus and concern of sustainability (Pereira, Leadley, Proenca, Alkemade, & Scharlemann, 2010; Persha, Agrawal, & Chhatre, 2011). As Buckley (2012) points global population is a major indicator of the ongoing and future impact of humans on the planet while peace is a global indicator of the governance and social structure. The author states that prosperity is a substitute for per-capita consumption of Earth's resources and that pollution is a measure of the environmental impact. Dwyer (2018) questions how tourism can make sincere contribution to industry development on planet Earth considering the adverse effects it imposes due to its continuing growth. Higgins-Desbiolles (2018) states that tourism has a problem, pointing that tourism is addicted to growth which is antagonistic to the sustainable objectives. As the focus of the tourism industry shifts on how to prosper with adverse growth Pollock (2012) argues that the effects of tourism growth reduce capability of the tourism industry to strengthen socio-cultural prosperity for hosts and the quality of tourism experience of tourists.

In her 2009 article Higgins-Desbiolles argues that despite being the most prominent topic in tourism research, sustainability in the industry remains as undefined as ever. The interest in sustainability was initiated by the concern for how to make global tourism industry more sustainable. The overall conclusion is that most of the tourism industry is unsustainable in the times when the human and natural resources are depleting.

Even though environmental and social changes are affecting the landscape of tourism industry globally, there is a limited interest to systematically track, evaluate and analyze the new paradigms of sustainability in the tourism research. Even less, there is a lack of interest to lookup beyond tourism literature on sustainability, in the multi-disciplinary environmental, social and economic publications.

On the other hand, the long-term value of a tourism destination is considered to have a destination brand equity value only if there is a reasonable chance that it will be there, for the future generations, offering the same or better resource capacity. From the supply side, those resources are natural, social and economic capital offered for consumption to tourists. At some point, there would be an equilibrium with the demand side or the image capital of a destination and the destination resources. On the other hand, tourism destination brand equity is created in the minds of visitors who because of the tourism destinations' resource capital have altered its image capital such as beliefs, feelings, ideas, and experiences of a destination (Crompton, 1979). Consequently, perceived value of a destination brand equity affects all the choices

tourists make about tourism destinations including willingness to visit, recommend and pay premium.

On the other hand, to avoid deteriorating marketing position, a destination must support, preserve or even enhance its' carrying capacity (Crouch, 2010). Going overboard with the consumption of resources increases pressure on the destination's long-term health and, eventually, deteriorates the image capital with the consequence of lowering the value of destination brand equity.

The scientific thought that tourism and environment can affect each other is not new to the research community. For the last forty years, the environmental and social issues have slowly started to gain interest among academics, scholars, researchers and the public. The term sustainability as a concept and direction for development is a recent subject. Sustainability started to contribute to the topic as the development and publications on frameworks, concepts, theories and management began to pick up. What followed was the discussion in literature about viability of the pragmatic side of the sustainability concept, its role, focus, areas of implementation, management and the overall applicability in the tourism industry. The argument is made that both sustainability and tourism are phenomena. This leads to the notion that the fundamentals of sustainability are applicable to tourism with an outcome that can be used for the future research as well as the substance of the value of a tourism destination (Buckley 2012).

3

1.2. Research Goals

The major research question of this thesis is outlined as follows:

“Would it be possible to develop a measurement instrument that will evaluate the impact of the universally accepted, multidimensional, deterministic and comprehensive elements of the sustainable development represented by the economic, social and environmental factors on the highly complex, heterogeneous, dynamic, unique and perceptual tourism destination brand equity based on the proposed model and to prove that in the long run they both become one and the same development process.”

Therefore, the intention of the research in this thesis is to explore the interaction and impact that elements of sustainable destination development have on tourism destination brand equity. Specifically, the study intends to prove that prolonged expanding economic activity may cause deterioration of the destination brand equity elements such as destination awareness, destination image, perceived destination quality and destination loyalty which in turn can make a destination less attractive in minds of potential tourists.

Also, as unbalanced social and environmental policies could further deteriorate tangible and intangible resources of a destination causing temporary or permanent damage to a destination (Buckley, 2012). Specifically, one of the major goals of the thesis is to confirm the Gartner's (2014) and Van der Zwan & Bhamra's (2003) notion that the process with the long-term focus on destination brand development is the same as the sustainable development one.

Moreover, this thesis tries to prove that destination loyalty is influenced by the effectiveness and efficiency of the social and environmental policies. Moreover, the aim is to

show that social, environmental and economic policies can significantly alter the outcome of the destination brand equity value either by enhancing, preserving or deteriorating its value.

In particular, the focus of the study is in understanding the mechanism of interplay among the elements of sustainability and the elements of brand equity in the context of destination brand equity development. Also, the focus of the study is to highlight deployment of the causal relationships of the components and the characterization of the proposed model. The study aims to explain how the elements of sustainability affect the individual as well as the overall relationships among the elements of the destination brand equity.

Also, the study tries to confirm the social element as the core dimension of the proposed theoretical model as well as to indicate that the environmental dimension is a significant one in the sustainability context. Finally, one of the goals of the study is to show causal relationships between functional, emotional and symbolic values coupled with the benefits that visitors are promised to receive and resources that are offered for sustainable consumption.

1.3. Research Purpose

The main purpose of this thesis is to expand research effort and wider scientific knowledge on the influence of the elements of destination sustainability on the elements of destination brand equity as well as on the value of destination brand equity. In more practical terms, the thesis will equip scientific, research, academic, marketing and management communities with a tool for researching, testing, teaching, analyzing, tracking, measuring, evaluating and developing tourism destinations.

From the scientific point of view³³, the thesis provides bases for establishing a theoretical model by conceptualizing elements of destination brand equity: awareness, image, quality and loyalty as well as the elements of the destination sustainability: economic, social and environmental into one model.

In a theoretical sense, the purpose of the thesis is to contribute to the research literature with more knowledge that will address the gap, that currently exists in the research papers on the subject. In the last two decades, there is plenty of literature on the sustainable destination development, but very little on the impact of sustainability on destination brand equity. However, there are few attempts to evaluate the relations between sustainability and satisfaction of a tourism destination (Iniesta-Bonillo et al., 2016; Cottrell et al., 2013).

From the research point of view, the thesis offers a conceptual model for valuation of the model in different destination scenarios. Also, it provides a theoretical background for the multivariate analysis for establishing dependent and independent constructs for exploratory factor analysis, confirmatory factor analysis and structural equation modeling. In exploratory factor analysis a set of factors or groups of observable variables are extracted from the data and will serve as the basis for defining unobservable variables also known as latent variables or constructs. In the next step, which is confirmatory factor analysis, the elements of the proposed model are evaluated against the constructs (factors) extracted by the exploratory factor analysis for the model fit. This is explained in more detail in section 5 (Methodology).

In confirmatory factor analysis, the proposed model will be used as the theoretical background for testing the model fit. In structural equation modeling or path analysis the

proposed model will prove structural relations that will be evaluated for causality and hypotheses testing as suggested by Hair, Anderson, Babin, & Black (2010).

Practical application and value of the thesis to destination DMOs (Destination management organizations) and destination stakeholders will be in defining direction for development and positioning strategies. Using the outcomes of the thesis tourism destinations will be able to increase their competitive position and focus on the profitable tourism niche markets. Also, applying the findings in the thesis, tourism destinations will stay on the top of current trends and be able to track changes into the marketplace as well as their marketing position relative to their competitors. By exposing that sustainability plays a significant role in the development of tourism destination brand equity, in the practical sense, it will open the door for the benchmark tools for managing, monitoring, tracking and forecasting a destination performance.

The significant effort of the study is directed towards creating and proposing a universally accepted, multi-country, cross-national, and multi-regional sustainable destination brand equity model. The overall significance of the proposed model is expected to come from its universality and robustness. Because of its global nature and multi-country reliability, there will be a tremendous possibility for implementing relationships from the model into the number of tools for planning, developing, measuring, managing and monitoring tourism destinations by various developed and developing countries, regional and local institutions, as well as emerging and developing tourism markets.

Moreover, the significance of the thesis is in offering empowerment tool to the host population, with an emphasis on developing power and trust to local, regional and state institutions and stakeholders. Specifically, attention will be given to overtourism, the optimal number of visitors, retention of the wealth, and the capacity of the local resources. The research will support the notion that going overboard with consumption of resources, will cause more crime, drugs, traffic, noise, alcoholism, pollution, loss of habitat and species, and deterioration of natural and created resources which will, eventually, result in decrease of the destination attractiveness, the image capital and ultimately the destination brand equity.

Furthermore, the significance will be in developing tools for managing the existing destinations as well as for developing the new ones. It will offer local and state level stakeholders, governments, DMO's and investors way to optimize their investments and make decisions that will encourage destination development under the umbrella of preserving or enhancing the destination tangible and intangible resources.

This study introduces proposed theoretical model, that considers sustainability as a destination promise in the context of tourism destination. Specifically, the study supports Aaker's (1991, 1996) CBBE model. In this thesis, an important fact is that the proposed model merges the three elements of sustainability: economic, social and environmental and the four elements of the destination brand equity (destination awareness, destination image, destination perceived quality and destination loyalty), as defined in the original Aaker's (1991, 1996) model, into the single model.

The research encourages merging the economic, social and environmental sustainability elements with the elements of destination brand equity: awareness, image, quality and loyalty into the single model. The newly formed model combines functional, emotional and symbolic

values with the benefits that visitors are promised to receive and resources that are offered for sustainable consumption.

Finally, the purpose of the thesis is to develop a comprehensive, practical and reliable management tool for destination managers to produce valuable data for the destination stakeholders for tracing, analyzing and monitoring tourism destination development process under the umbrella of sustainable development practices.

1.4. Hypotheses and Adopted Methodology

The research process selected in this thesis consists of the several steps designed to deliver research effort in the most efficient and effective way towards desired outcome. The research starts with defining a research topic followed by the critical literature review and formulation of the research gap. What follows is the formulation of the research questions along with more specific research objective. After defining the research purpose two major and twelve supporting hypotheses are identified from the theory.

The research in the thesis implements descriptive research method for describing characteristics and behavior of the sample population. The method closely follows the observational method that utilizes surveys as a way to collect population data. The thesis supports philosophy of post-positivism and uses both inductive and deductive approaches. The strategy of the research evolves around survey-based techniques utilizing mostly close-end questions as a single-method to collect data. The research falls into the cross-sectional study category. Collected data are analyzed and interpreted against theoretical domains. Data collected in the survey are analyzed using multivariate analysis and used to test the outlined hypotheses.

The primary hypotheses that capture the essence of the thesis are:

H1: There is a significant positive impact of tourism destination sustainability on tourism destination brand equity.

H2: Tourism destination sustainability development and tourism destination brand equity development are two parallel processes that merge to become one process in the long run.

The supporting hypotheses addressed in this thesis are:

H3: Economic sustainability has a positive impact on the destination awareness.

H4: Social sustainability ¹¹ has a positive impact on the destination awareness.

H5: Environmental sustainability has a positive impact on the destination awareness.

H6: Economic sustainability has a positive impact on the destination image.

H7: Social sustainability has a positive impact on the destination image.

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H8: Environmental sustainability has a positive impact on the destination image.

H9: Economic sustainability has a positive impact on the destination quality.

H10: Social sustainability has a positive impact on the destination quality.

H11: Environmental sustainability has a positive impact on the destination quality.

11
H12: Economic sustainability has a positive impact on the destination loyalty.

H13: Social sustainability has a positive impact on the destination loyalty.

H14: Environmental sustainability has a positive impact on the destination loyalty.

1.5. Research Methodology

Following the research philosophy and selection of the acceptable methods within the realm of marketing research and tourism analysis, the thesis considers positivism and constructivism as the two possible candidates (Hanson & Grimmer, 2007, Franke & Mazanec, 2006; Jennings, 2009). Both tourism research and marketing studies fall into the consideration of research philosophy on the two opposite sides of the spectrum.

Positivism, which follows ideas of the Vienna Circle, falls into empiricism under the realism choice. The positivism method or approach is widely accepted by the social and natural research community as philosophical view (Bloomberg, Cooper, & Schindler, 2008). Positivism supports the ontological view that the truth (world) exists outside of us and is objective. In other words, the world is external and is defined outside of our intervention. Following the positivistic paradigm, a researcher has an independent role in collecting quantitative facts in objective manner and interpreting facts by reducing the amount of information (Bloomberg, et al., 2008).

On the other hand, constructivism belongs to the Kahn's interpretation of the world, as a part of the unrealism school of thought (Hanson & Grammar, 2007). As the same authors state, constructivism, opposite of positivism, rejects objectivist epistemology and adopts relativist ontology, supporting stand that an individual decides what the truth is. The major point of the constructivism research is that individual viewpoint matters and that it serves as an example to others). Constructionist research uses primarily qualitative research and rely on interpretation and understanding. Because constructivism heavily dependents on interpretation, (Bloomberg et al., 2008) the research paradigm is known as "interpretivism". Interpretivist highly question notion of generalization which is, along with reliability, validity and statistical significance, a key concept in positivistic research (Bloomberg et al., 2008, Hanson & Grimmer, 2007).

To avoid both extreme approaches (e.g., Yeganeh & Su, 2005) caused that the research effort in this thesis settles for the middle-way. Hence, a "moderate" version of the positivism, known as post-positivism, is adopted. Hanson and Grimmer (2007) elaborates that post-positivism, which has different epistemological assumptions from positivism, suggest

methodology that supports probabilistic insights and the “viewpoint of the observer must be borne in mind at all times in describing any part of the world”.

Demeritt, (2001) used heterogenous constructivism to examine global warming. The author’s conclusion is that the subject must be viewed as mutual construction of nature, science and society. However, this thesis also supports the heterogenous constructivism in evaluating the elements of the tourism destination brand equity.

The classical empiricism and realist ontology introduced the concept ⁸⁵ “impact”, a metaphor that is commonly used with the respect to tourism and sustainability. World Tourism Organization (UNWTO) and United Nations Development Programme (UNDP) report that countries, as tourism destinations, lack capacity, structure and framework, to absorb the full impact of sustainability on tourism, in reference to enhancing performance, by assessing the impact and sharing knowledge (UNWTO & UNDP, 2017, p.12). As a result, tourism businesses must gradually improve their performance, measure their progress and compare themselves with other businesses. The same report defines sustainable tourism in relation to the current and future social, economic and environmental impacts elaborating on enhancing value to visitors, local communities, environment and the industry (UNWTO & UNDP, 2017, p. 15).

Hall (2019) suggested that human impact is in the center of sustainable tourism research which molds the thinking of how the term is explained. On the other hand, Head (2008) argues that human impact on the environment and its features has increased over time in both scale and intensity. The same author points that humans, who for centuries have pervasively occupied the Earths’ ecosystem found themselves separated from the nature in the scientific research.

The study shows how entangled tourism and environmental domains are (Rutty, Gössling, Scott, & Hall, 2015). Therefore, Hall (2019) argues that it is ironic that the term “tourism impacts” or “tourist impacts” ontologically position tourism outside of the context of the research or the subject that has been impacted. Yet the metaphor historically stays in widespread use in tourism research, and it is used in this thesis as well.

The thesis adopts, the post-positivistic methodology since it follows the common approach in the social scientific empirical research, including tourism and the holistic marketing and branding studies. In other words, the prior theoretical considerations and conclusions are the bases for the hypothesis. The causal relationship between multi-dimensional model constructs are operationalized using multivariate statistics (Hair et al., 2010).

Based on Steenkamp & Bumgartner (2000), the main focus of the research methodology applied in this thesis is consistent ³ with the research analysis. Based on the earlier considerations the research is divided in the five stages:

1. Literature review and development of the theoretical model for evaluation of the causal relationship between the elements of sustainability and tourism destination brand equity.
2. Development of the tourism destination-specific sustainability measurement scale (Konecnik & Gartner 2007; Mihalič, Šegota, Knežević Cvelbar, & Kir, 2016; Iniesta-Bonillo et al., 2016).

3. Development of the tourism destination-specific brand equity measurement scale (Konecnik & Gartner, 2007; Yang, Liu, & Li, 2015; Bose, Roy, & Tiwari, 2016; Im, Kim, Elliot, & Han, 2012)).
4. Establishing composite reliability and discriminatory validity of the measurement model (Brown, 2006).
5. Establishing causal relations between the constructs of the proposed utilizing multivariate statistical technique (Hair et al., 2010; Bartholomew, Steele, Moustaki, & Galbraith, 2008; Byrne, 2001;)

The research design and process for data collection is illustrated in Figure 1.1.

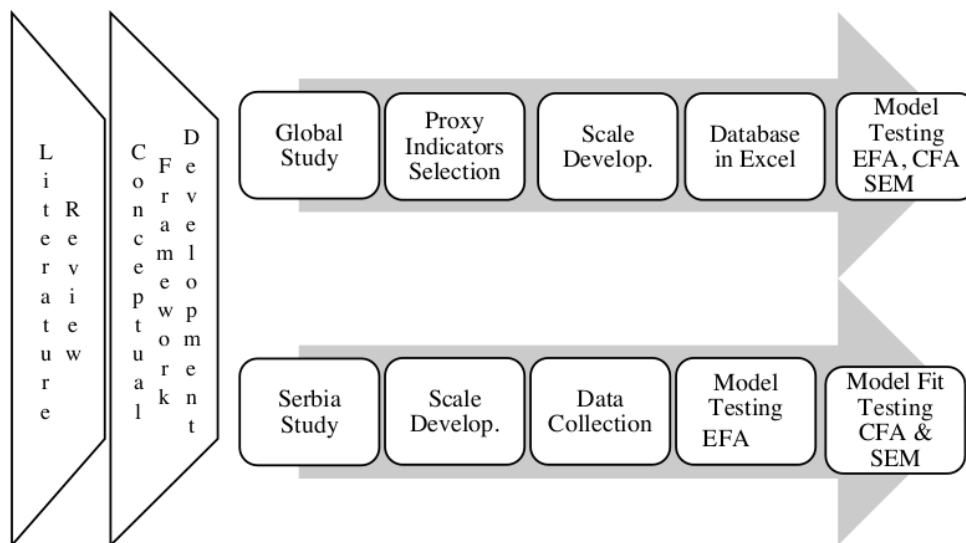


Figure 1.1. Analysis and Data Acquisition Process

Moreover, the study in the thesis uses the results of the proposed model validation for both global indicators and the case of Serbia. The global indicators are used for the period of 2015-2018 as proxies of the constructs of the measurement model. On the other hand, to increase robustness of the proposed model cross-validated on a survey data of a case Serbia is analyzed. The survey in Serbia, was conducted, using the Google Form application-based research instrument, on international visitors during the period between September of 2018 and March of 2019 in Belgrade, Serbia.

Belgrade, the capital and the largest city in Serbia, is chosen since it is the most popular destination for international tourists (57% in 2018) who are visiting Serbia (Statistical Yearbook, 2019). Cross-validation of the model is done using the two different sets of data is intended to show the empirical robustness, validity and reliability of the proposed model. The thesis makes distinction among the framework, theory and model.

1.6. Structure of the Thesis

The Chapter 1 introduces the basis for the research goals by elaborating on the pragmatic and theoretical gaps, that will serve as the background for the research study implemented in the thesis.

Chapter 2 discusses the theoretical background of sustainability of tourism destinations and shows theoretical connection with the destination brand equity development and destination sustainability development. Also, the chapter offers historical overview of the development of sustainable destination brand equity in the research literature. Most importantly, the chapter provides a theoretical background of the impact of tourism destination sustainability on tourism destination brand equity.

The chapter discusses the sustainable development literature review considering social, economic and environmental aspects as the most important pillars of the sustainable development model. The chapter evaluates the individual contribution of the social, economic and environmental elements on the tourism destination brand equity. It formally evaluates impacts of the social and environmental pillars on destination's attractiveness. Next, the chapter analyzes the significance of the balance between costs and benefits in the destination brand equity context.

Moreover, the chapter introduces the concept of social exchange based on power and trust. The social exchange theory is presented in the context of tourism destination attractiveness based on the resident-visitor conflict and implications. Finally, the chapter outlines historical overview of the research literature on how social dimensions impact development of destinations and destination brand equity. Further, the chapter analyzes importance of the power, trust, benefits and cost structure in tourism destination development. Moreover, the chapter presents relationship between social exchange theory, tourism destination, power and trust.

Chapter 3 outlines the historical overview of the brand equity concept and its application in tourism destination development. Each element of the destination brand equity model: awareness, image, quality and loyalty is separately evaluated. Finally, the chapter formally introduces the theoretical model that captures the causal relationships between the elements of destination sustainability model and destination brand equity model.

Chapter 4 formally presents the theoretical framework behind the formation of the model by introducing the theoretical structure of the model and corresponding dimensions. Also, the chapter outlines development of the literature-based hypothesis and reviews the development of the tourism destination brand equity from the country perspective. The theoretical concept behind the country as a brand is discussed as well as the framework for the country brand equity in the destination context. Finally, the chapter contributes with the theoretical background of the sustainable destination development concept by proposing the model based on the Aaker's (1991, 1996) and Keller's (1993) CBBE models

The statistical methodology for the analysis is elaborated in the Chapter 5. In this chapter the strategy for the development of research instruments is presented, and data collection and

preparations are explained. In addition, multivariate statistics is introduced and structural equation modeling (SEM) technique is explained in detail.

In Chapter 6 the global case is tested based on quantitative proxy indicators and valuated using exploratory factor analysis and confirmatory factor analysis. The causal relationships are confirmed using structural equation modeling technique (SEM).

Chapter 7 tests the case of Serbia based on the survey data of foreign tourists visiting Serbia. The results are presented and are tested for threshold values. Next, composite reliability (CR), convergent and discriminatory validity is established. Also, causal or hypothesized relationships among the elements of the proposed model are measured, tested, evaluated and confirmed using structural equation modelling (SEM).

Finally, Chapter 8 discusses the future research initiatives as well as research limitations, results of the study and the practical, managerial and theoretical significance of the work presented in this thesis.

2. SUSTAINABILITY AS A PREMISE FOR DESTINATION BRAND EQUITY

This chapter introduces several important concepts behind the logic of using principles of sustainability into the tourism destination development. It offers insights into the theoretical aspects of the sustainability in the tourism destination context with evaluation of the general concept of sustainability.

Next, the section sets up a comprehensive setting for the theoretical evaluation of the impact of the sustainable development of tourism destinations, issues, and outcomes. The section offers a review of the historical evolvement of the research literature and topics. Also, the section introduces the concepts of sustainable destination brand equity development model in a tourism destination context.

Furthermore, it evaluates interrelation among the dimensions such as economic, environmental, social, value co-creation, trust, power, visitation, seasonality, and length-of-stay. The chapter evaluates the theoretical framework for integration of tourism destination brand equity development model with the concept of destination sustainable development is presented.

Importance of the balance between the cost and benefits is analyzed in the context of the sustainable destination development and the modern concept of social impact based on power and trust as the way for parties to get the most of their relationship is highlighted.

Social exchange theory is evaluated from the perspective of tourism destination. The section highlights the relations and causes of the resident-visitor conflict and the emerging implications because of the interaction. Also, overtourism is highlighted as an emerging force of destruction of tourism destinations as well as the concept of degrowth, as an emerging trend in the scientific literature as a reaction and solution to overtourism.

Finally, the chapter introduces historical overview of the research literature on how social dimensions impact development of a tourism destination and destination brand equity, the importance of the power, trust, benefits and cost structure in tourism destination development. Moreover, the relationships between social exchange theory, tourism destination, power and trust are considered.

2.1. Evolvement of the Sustainable Tourism Research

Martínez, Martín, Fernández, and Mogorrón-Guerrero (2019) suggest that sustainable tourism models must balance the environmental, social and economic interests while at the same time tourism industry must use social and economic tools for development. Therefore, the concept of sustainable tourism, must first be examined through the lens of sustainable development which is a broader concept. In its general format, the concept refers to the ability of the constructive activities to produce satisfactory outcomes for today's requirements without compromising the resources of the future generations). Besides the notions that the preservation of resources upon which the activities rely on, must not affect the future outcomes, the activities must satisfy the necessities of both the tourists and the local communities of destinations World Tourism Organization (WTO, 1993). In this context, tourism industry is considered multi-dimensional with respect to economic, social and environmental interests. The balance between the three dimensions is not given and assured (Park, Lee, Choi, & Yoon, 2012).

In 2015, the United Nations Member States adopted the framework for peace and prosperity for the people and planet called the 2030 Agenda for Sustainable Development. At its core are the 17 Sustainable Development Goals (SDGs) (United Nations Sustainable Development Goals [UNSDG 2030], 2019).

The sustainable development goals (SDGs) which are addressing how to evaporate poverty, ensure prosperity and guard the planet quickly became focal point for the studies on sustainable development tourism. In spite of the critics on how to achieve the SDGs (Scheyvens, Banks, & Hughes, 2016), the dominant direction, as suggested by UNWTO & UNDP (2017, p. 31), demands that tourism needs to be well managed, otherwise it can have negative impact on people, planet, prosperity and peace. The critical factors for the success of the 2030 SDGs are increased competitiveness, improved management, increased visibility of the private and corporate domains, technology and efficiency (Herrera-Cano & Herrera-Cano, 2016; Henriques & Brilha, 2017; Imon, 2017). However, Hall (2019) raises a concern on relying on business ways and growth to achieve the SDGs and giving less importance to social and environmental issues. The author says that solutions for achieving SDGs must be more reflexive and use knowledge and management to better understand sustainability. There is a need to reformulate human-environment relations in the light of mistaken belief that greater effort and efficiency alone is enough to solve the problem (Hall, 2019).

Reviewing the state of tourism sustainability research of the first decade of the 21st century, Buckley (2012) states that sustainability was viewed as a shorthand for human and planetary future and that tourism research regarded it as a sideline subdiscipline. The same author suggests that the large-scale environmental and social changes were affecting the world in which tourism works, but few researchers were trying to deal with those changes.

In the subsequent article, Buckley (2015) argues that sustainability of tourism can be evaluated through its impact on the five globally recognized social aspects defined as: protection, population, peace, prosperity and pollution. His point was that the technical side of the tourism sustainability at the level of tourism enterprises is all about managing environmental impacts including pollution. The author states that at the global level, economic growth has always been related to the worsening of sustainability. Historically, only in the times of global recession the impacts on the resources were reduced. The author's overall conclusion is that applying efficient-waste and resource-lowering technologies can further reduce impacts suggesting that tourism industry is taking actions to reduce negative impacts on both human and natural resources and creating positive results by supporting the conservation and protection of the endangered species and natural habitat (Buckley & Pegas, 2012; Buckley et al., 2012). However, the authors agree that tourism industry, as a whole, remains oriented towards growth and, therefore, not sustainable.

Higgins-Desbiolles (2018) states that tourism today is devoted to growth, distancing itself from the sustainable goals. Despite the social and ecological boundaries of the life on the planet with finite resources which has generated numerous initiatives for development of sustainable tourism for the last thirty years, tourism industry continues to promote tourism growth. The author advocates creating a global Tourism Wealth Fund to support variety of initiatives to tourism strategies for regulating and developing better methods for measuring human benefits, ecological limits and tracking sustainable achievements. The argument is made that sustainable tourism is more about sustaining tourism and less about sustainable development.

Butler (1999, p. 35) formulated definition of destination sustainable tourism as a viable concept that can exist in a destination for indefinite period of time only if it doesn't deteriorate or alter the environment (physical and human) in which it exists to the extent that it limits the successful development and prosperity of other processes and activities.

Tourism environment is a subject of intricate interactions caused by the tourists' activities on the environment known as tourism impact. The impact could produce either positive or negative outcome categorized as economic, environmental and socio-cultural (Hall, 2019; Fennell, 2007). Positive effects of the tourism activities are in creating jobs, local prosperity, improvement of the public image of the destination, region and country, preservation of cultural heritage, and improvement of the business network (Andereck, Valentine, Knopf, & Vogt, 2005). Collateral effects to the residents include increase of leisure time, cultural interaction, increase in global knowledge and trends, more focus on the natural environment, improvements in infrastructure and public transportations, among others (Almeida, Peláez, Balbuena, & Cortés, 2016).

However, from another standpoint, the negative effects are quite many and include disruption of the local lifestyle, overcrowding of public spaces, increase in property prices, personal safety, environmental damage, increase in waste-pollution and overuse of resources (Almeida et al., 2016). Martínez et al. (2019) argue that the cause of the tourism impact is significantly related to the number of tourist arrivals and the magnitude of the tourist concentration during certain periods of the year. Also, the other authors consider seasonality as one of the key factors that influence sustainability (Altinay, 2000; Shen, Luo, & Zhao, 2017; Martin, Salinas, & Rodriguez, 2018).

Furthermore, when there are too many tourists visiting a destination and cause overuse of its social and environmental capacity, we have overtourism (Insch, 2019). The same author states that there is a need at the local level to ensure sustainable development and better management of the tourism influx. The author further states that all levels of government, including tourism industry, and participation of residents are needed to implement sustainable market strategy for tourism development that will ensure satisfaction of the needs of present and future generations. According to Seraphin, Sheeran, & Pilato (2018) a balanced, highly skilled management approach should be implemented to deal with overtourism.

Overtourism is a modern, rapidly emerging and growing concept in the sustainable tourism development. Overtourism is a global phenomenon that is affecting the mainstream tourism, propelled by the negative effects such as environmental and cultural degradation, crowdedness, gentrification and residential dissatisfaction. Insch (2019) states that analysis of big data could aid managers and policy makers in obtaining insights in tourism behavior which can be used to aid management policies for infrastructure development, and to develop innovative ways to reduce adverse effects of seasonality and redirect tourists to less crowded areas. The author suggested that is necessary to maintain high level of tourism experience but not at the expense of the host population and environment. This could be achieved by proactive monitoring and evaluation of destinations' capacity, infrastructure gaps and residents' attitude towards tourism.

Overtourism is being felt by many developing and developed countries as well as highly urban destinations such as Venice, Barcelona, Reykjavik, Amsterdam, Bali, and Dubrovnik (Insch, 2019; Seraphin, Sheeran, & Pilato, 2018).

Increasingly, the growing number of tourists visiting destinations are negatively affecting destinations by causing resentment of the local population, damage of tangible and intangible resources, and disruption of the local way of life (Seraphin, et al., 2018). The phenomenon is caused by a) increased attraction to the world UNESCO heritage sites, b) deterioration of the environmental sustainability, c) disruption of the quality of life of the local population, and d) the limited impact on the local businesses, to mention few (Buckley, 2017; Coldwell, 2017).

Beginnings of the overtourism concept can be traced all the way to 1960s in the tourism literature on the host-guest interaction. More recently “Responsible Tourism Partnership” RTP (2019) suggested that the concept is best highlighted as: “Overtourism describes destinations where hosts or guests, locals or visitors, feel that there are too many visitors and that the quality of life in the area or the quality of the experience has deteriorated unacceptably.”

The concept of overtourism suggests that destinations have their environmental and social carrying capacity. If the capacity is exceeded and the destination is not prepared to handle increased tourism activity, the destination is strained causing deterioration of the tourists’ experience, environment and wellbeing of the local inhabitants. Residents dissatisfaction may lead to rejection of tourism which already happened in many destinations.

Consequently, the brand image of the destination is affected in a negative way causing deterioration of the attractiveness and willingness to revisit destination. Furthermore, tourists’ personal experience with overtourism could result in removing a destination from the choice list in the future travel intentions because of the negative advocacy of a destination, word-of-mouth, and valuation of a destination (Insch, 2019).

Based on the research literature on the tourism sustainability, the thesis outlines evolvement of the sustainable tourism in Table 2.1. The establishment of the sustainable tourism as a research field has started in early 70’. In the first few decades the research progressed over several areas covering social and environmental issues, using the term “sustainability”, economic and environmental aspects, sustainability in tourism industry, and most recently overtourism and degrowth.

Table 2.1. Evolvement of the Sustainable Tourism Research

Sustainable Tourism Development Stages	Emerging Research Areas	
Establishment of sustainable tourism as a research field	1970-1990	7 Attention to social and environmental issues: Allen, Long, Perdue, & Kieselbach, 1988; Brougham & Butler, 1981; Cater, 1987; Cohen, 1978; Farrell & McLellan, 1987; Liu & Var, 1986; Smith, 1977; Turner & Ash, 1975; Young, 1973;

1990-1999	- <i>First time use of term sustainable tourism:</i> May, 1991; Nash & Butler, 1990; - <i>Compilations:</i> Coccossis & Nijkamp, 1995; Hall & Lew, 1998; McCool & Moisey, 2001; Stabler, 1997; Swarbrooke, 1999; - <i>Basic frameworks:</i> Butler, 1999; Clarke, 1997; Hall & Butler, 1995; Hughes, 1995; Hunter, 1997; - <i>Economics:</i> Driml & Common, 1996; Garrod & Fyall, 1998); - <i>Environmental management:</i> Buckley, 1996;
2000-2009	- <i>Reconceptualization 's:</i> Sharpley (2000), Casagrandi & Rinaldi (2002), Gössling (2002), Liu (2003), Saarinen (2006) and Lane (2009);
After 2010	- <i>Practicalities of sustainability in the commercial tourism industry:</i> Buckley (2012), Dupeyras & MacCallum, 2013, Crouch, 2010; Dwyer, Knezevic, Mihalic, & Koman, 2014a; Qiu Zhang et al., 2016; - <i>Overtourism:</i> Buckley 2017, Coldwell 2017, Seraphin, Sheeran, & Pilato 2018, Insch, 2019, Muler Gonzalez, Coromina, & Galí 2018 - <i>Degrowth:</i> Milano, Novelli & Cheer 2019

In the sustainable tourism destination development scenario, the rapidly emerging concepts of overtourism is usually followed by a new, contemporary and rapidly emerging concept of degrowth. In incidents where popular destinations become a subject of uncontrolled and unregulated consumption of its resources by tourists, the degrowth has emerged as a top agenda of the protest movements led mostly by the social groups. Those groups advocate that direction of tourism development models should take a shift from “tourism growth” to “tourism degrowth” (Milano, Novelli, & Cheer, 2019). Advocates of degrowth find the arguments in tourism growth that has caused adverse, marginalizing and disruptive effects on tourism destinations.

As some cities and island destinations experienced exponential growth in tourist arrivals, and corresponding increase in economic activity, the agenda of degrowth has emerged, supported by the political agenda of social groups. In the last decade, the Philippine island of Boracay and Thailand’s Maya Bay beach at Phi Phi Leh island became visible symbols of the overtourism and subject to “degrowth” agenda of the social movements (Milano, et al., 2019).

Despite the fact that literature on tourism degrowth is rather scarce (Andriotis, 2014; Hall C. M., 2009; Canavan, 2014), there is an increased activity in tourism research associated with social movements, overcrowding effects and degrowth support (Demaria, Schneider, Sekulova, & Martinez-Alier, 2013; Milano C. , 2018). According to Kallis, et al. (2018) degrowth is a reaction to economic prosperity, where production and consumption are not in sync and where supply side overuses the resources to collect the benefits while the costs are left to local communities to bear. The same authors suggest that it is important to evaluate how can reduced consumption and production coexist without tapering prosperity and standards of living. In other words, the question is if the shift from “growth for development” to “degrowth for livability” is a step towards more sustainable and just outcomes?

Another factor that is increasingly attracting researchers’ attention is the concept of a destination’s seasonality. It is quite common that seasonal sensitive destinations, during the peak periods, exceed their carrying capacity causing destination resources to go overboard with their ability to meet tourists’ demands.

Impact of sustainability in the destination context can be analyzed by a paradigm that comprehensively tests influence of the building elements of sustainability and destination brand equity (Kim & Lee, 2017; Kim, Thapa, & Kim, 2017; Cottrell, et al., 2013; Iniesta-Bonillo, et al. , 2016; Andereck & Vogt , 2000; Byrd, Bosley & Dronberger, 2009; Chen & Chen , 2010; Kao, Huang, & Wu 2002; Qiu Zhang et al., 2016).

Social domain, is playing an important role in developing and measuring destination brand equity (Choi & Sirakaya, 2005; Stronza & Gordillo, 2008; Hung, Sirakaya-Turk & Ingram, 2011). Also, tourism businesses with adaptive and innovating capacities are considered more resilient (Dahles & Susilowati, 2015).

There is no single method of measurement that completely evaluates sustainability for each global scenario (Evans, Srezov, & Evans, 2015; Gartner, 2014). Also, measuring sustainable development which is not possible by traditional economic models cannot be based only on growth per capita income or gross domestic product (GDP) since they provide a distorted picture about reality. Therefore, different approaches for the valuation and quantification of sustainability are needed (Evans et al., 2015).

Rather, the measurement model must include social variables (Evans et al., 2015). Gartner (2014) and Evans et al. (2015) argue that significant attention should be on to natural, human and social capital.

Sustainable development of tourism became a major focus of tourism policy officials, destination marketing organizations (DMOs), and related industries and tourism researchers. The World Tourism Organization (UNWTO) places tourism sustainability as a key issue in all its publications besides social responsibility, ethics, tourism and development, competitiveness and knowledge.

The importance of sustainable tourism is shown when United Nations (UN) proclaimed the 2017 as the official Year of Sustainable Tourism for Development. Despite such attention and interest, empirical research suggests that the global tourism is in fact less sustainable than ever (Hall, 2011; Hall, Gössling & Scott, 2015). Global concerns about impacts that tourism development has on sustainability are further evident at the local communities¹.

Taylor (1995, 1999) coined the term “heterogeneous constructionism” to address the problem of sustainable tourism by emphasizing the significance of heterogeneity of resources and to distinguish the common views of social elements that support notion that researchers’ views are determined by their social culture. Sustainability is an environmental issue requiring that we view the environment from the personal, economic, management and policy terms (Hall, 2019). Therefore, sustainable tourism development questions biophysical process for tourism production systems and needs to address the dualistic nature of the socio-economic processes.

Demeritt, (2001) used heterogeneous constructionism to examine the construction of global warming and the politics of science. The author’s conclusion is that the subject must be viewed as mutual construction of nature, science and society. This thesis supports the heterogeneous constructionism in evaluating the elements of the tourism destination brand equity.

The classical empiricism and realist ontology introduced the concept of “impact”, a metaphor that is commonly used with respect to tourism and sustainability. Hall (2019) suggested that the metaphor of human impact is a major focus of sustainable tourism which molds the thinking of how the term is explained (Head, 2008). The research on the global environmental change shows just how extremely entangled tourism and environmental systems are (Rutty, et al., 2015). Therefore, it is ironic that the term “tourism impacts” or “tourist impacts” ontologically position tourism outside of the context of the research or the subject that has been impacted. Yet the metaphor historically stays in widespread use in tourism research and is considered as a critical term for the title of this thesis.

Next, Head (2008, p. 374) argue that fewer number of assumptions makes model simpler to explain. However, the stand that relationship is “simple” takes many more assumptions than the view that it is complex. Furthermore, Demeritt (2001, p. 308-309) points out that science and cultural politics are undervalued in knowledge studies.

However, little attention has been given to the cultural politics of the scientific practice and its role in influencing, and consequently, framing knowledge. Also, the same author disputes the construction of research questions, standards of proof, choice of methods, and the definition of other aspects of what constitutes “fine” scientific exercise demands relying on

¹ Negative reactions on overtourism, as mentioned earlier, are growing in destinations. Those concerns are further elaborated in the distinctive study by (Dichter & Manzo, 2017).

policy relevance. Therefore, there is an argument that interpretation by heterogeneous constructionist interpretation, on society-environment-technology, brings up questions about the consequences of the interaction between tourism and long-term sustainable goals (Demeritt, 2001).

2.2. Sustainable Development of Tourism Destinations

As we enter the 21st century, sustainable development of tourism destinations and sustainability become a paramount model for long term strategies that include planning, development and marketing effort by government institutions, private sector, destination planners, and other stakeholders. In the meantime, the word “sustainable development” became very popular as a construct used for depicting political programs (Dymond, 1997). As development of tourism destinations forced the destinations’ stakeholders to understand changes in the environment and society, the sustainable development became a dynamic process.

United Nations (2008, p. 21) proposed an integrated view of sustainable development stating that the goal of the sustainable development is to insure well-being of the present population and the potential for the well-being of the future generations. The main point of the integrated view is to reconcile the needs of the present generations with the opportunities of the future ones. Consequently, the view supports the measurements of sustainable development must equally focus on the options of both present and future parties.

In the beginning, the focus was more on the environmental and economic issues. However, the impact of justice, local community empowerment, equality and reduction of poverty proved too important to be ignored. Very soon, the social elements became the foundation of the sustainable development of tourism destinations (Ahn, Lee, & Shafer, 2002). Contemporary view on sustainable development includes a complex bundle of development schemes including development of tourism destinations (Brida, Osti, & Barquet, 2010). One of the main principles of sustainable tourism development is that benefits should also go to the local community to strengthen the local economy, employ local people, and use local resources. The policies and the laws should be developed to empower the destination community in economic, social and environmental aspects. The major objectives of the sustainable tourism development are maximization of benefits and minimization of costs, engagement of local community and enhancing the tourism experience (Cottrell et al., 2013). The unprecedented growth of tourism worldwide demands importance of applying the sustainable development principles in every facet of the tourism destination development including tourism businesses, tourists and host destination.

Cottrell et al., (2013) supports an argument that the basic tourism sustainability development paradigm besides its three basic components: economic, social and environmental, should include institutional aspects. The argument advocates the importance of the institutional support in implementing social, economic and environmental policies. Therefore, the authors propose the prism of sustainability concept, a paradigm theorized by Spangenberg (2002). The paradigm is conceptualized and operationalized around four interrelated dimensions: economic sustainability, social sustainability, environmental sustainability and institutional sustainability. The model’s economic sustainability relates to the employment, livelihood, material wellbeing

as well as the infrastructures such as roads, buildings, airports, etc. Environmental sustainability relates to renewable and non-renewable resources and natural environment. On the other hand, issues of social sustainability include, besides the basic human rights, skills, knowledge, awareness, behavior and experience. Finally, the institutional sustainability denotes power, trust, planning, partnerships, implementation, government institutions etc. (Keiner, 2000; Spangenberg, 2002).

Iniesta-Bonillo et al., (2016) state that perceived sustainability of a tourism destination increases perception of the tourism destination value. The authors developed the model to prove that perceived sustainability foretells the perceived value of a tourism destination from the marketing perspective. This thesis considers sustainability as multidisciplinary construct that consists of social, cultural, economic and environmental elements. Also, the thesis places tourists' experience as the key construct of the model by empirically evaluating the perceptual elements of destination sustainability (economic, social and environmental) and destination brand equity elements (awareness, image, quality and loyalty).

The lack of agreement how to measure sustainability is still present (Buckley, 2012; Ko, 2005). One group of authors suggest indicators based on the geography (Cernat & Gourdon, 2012; Ko, 2005). The other authors apply three and four-element multidimensional models utilizing economic, social, environmental and institutional approach (Cottrell, et al., 2013), or seven-element paradigm with environmental, cultural, political, economic, social, managerial and governmental dimensions (Bramwell, et al., 1996).

Sustainable development of a tourism destination influences value-creation, management, processes, operation, practices and supports the need for market-based practices. Iniesta-Bonillo et al. (2016) suggest that besides support from the institutional and stakeholder theory, which supports social structure and stakeholders' demands respectively, the accent should be given to increasing the tourists' perceived value. The research literature considers perceived value as a conceptualization between "give" and "get" trade-offs. More precisely, the related research literature views the value of a destination as process of organizing, selecting, receiving and interpreting information related to different tourists' experiences at a destination to create a meaningful picture of the value of destination experience (Prebensen, Woo, Chen, & Uysal, 2012). The destination brand equity theory recognizes this as a formation of image, quality, awareness and, consequently as a creation of attitudinal loyalty.

Keller (2013) recognizes that human mind influences the value of the brand equity which in this case supports notion that the human mind is the bond between perceived destination sustainability and the destination brand equity. Further author states that the strength of the attachment to a destination lies in what humans think, feel, associate, perceive, imagine, expect, experience and love about the brand (destination). So, feeling of the mind, in combination with the voice of the heart, leads to an extensive feeling of loyalty, resonance and strong attachment to a brand (Keller, 2013).

Based on the above, the two major hypotheses will be defined below while twelve supporting hypotheses will be formulated in reference to the four elements of destination brand equity in chapter 3. Separate formulation is required to better capture the context and relationship between the elements of destination sustainability represented by economic, social and environmental sustainability with the elements of destination brand equity represented by destination awareness, image, quality and loyalty. The thesis formulates the basic hypothesis:

H1: There is a significant positive impact of tourism destination sustainability on tourism destination brand equity.

The significant positive impact means that sustainability element in each occurrence ($p = 0.001$) loads on destination brand equity with the same value of the regression loading factor. The causal relationship between the tourism destination sustainability and tourism destination brand equity suggests that in the implementation of the elements of sustainable destination development triggers the change in tourism destination brand equity. Iniesta-Bonillo et al. (2016) and Prebensen et al. (2012) suggest that sustainable development influences, over the long period of time, wide range of destination characteristics that affect tourists' experience at the destination.

Tourism destinations are living, dynamic, lively, unique and specific actuality wrapped in the residential heritage and culture, natural environment and economic reality. Therefore, it is easy to lose sight of the value of a destination brand equity if only outcomes from the marketing results are used. Besides economic factors such as visitation, receipts, employment and so on, it is necessary to consider the overall long-term health of a destination from the perspective of the environment and residents' socio-cultural well-being. Consequently, using service marketing approach to determine the destination brand equity is the same development path as one used for the long-term sustainable development (Gartner, 2014; Van der Zwan & Bhamra, 2003). However, only recently tourism general development effort has begun to recognized sustainability as a part of the process. This forms the bases for the formulation of the following hypothesis:

H2: Tourism destination sustainability development and tourism destination brand equity development are two parallel processes that merge to become one process in the long run.

The 1992 Rio Earth Summit produced the service guide for more sustainable future development that included the concept of eco-efficiency which meant "achieving more for less" which entailed offering customers added value while reducing impact on environment. A decade later, the concept became a foundation for sustainable development and the bridge between service marketing literature and sustainable development (Meijkamp, 2000). Initially, the focus was on the impact of marketing services on environmental sustainability. Consequently, the pressure to reduce environmental impact, resulting from manufacturing and consumption of products and services, resulted in the development of the concepts such as sustainable product design and sustainable technology development. The social, economic and organizational advancements quickly followed (Roy, 2000).

Mitchell et al., (2010) introduced the sustainable marketing orientation concept which is based on economic, social and environmental objectives and inclusion of the brand management. Zouganeli, Trihas, Antonaki and Kladou (2012) state that features such as holistic management, long-term development and stakeholders' participation are equally important in sustainable development and branding of a tourism destination. Consequently, sustainable development and destination branding can be one process if there is a simultaneous agreement

between tourism demand, policy objectives and residents. Moreover, the authors state that only if residents agree with the projected image of their destination, should they be expected to “live the brand”.

Dinnie (2009) argues that brand identity is multifaced construct made out of emotional and functional benefits and represent the core dimension around which all brand development should take place. The identity consists of attributes such as recreation, sports, safety, comfort, climate, infrastructure, natural resources, shopping, scenery, culinary attractions, architecture, easy of communication and friendliness of residents, tradition, heritage, music, literature, history, landmarks, atmosphere and tradition.

Therefore, Gartner's (2014) and Van der Zwan and Bhamra, (2003) suggest that sustainable development and brand equity development of a destination are almost identical in terms of objectives, outcomes and implications, so that both processes can be considered as one. Gartner (2014) goes further to explain that a traditional approach of measuring brand equity as an economic return from marketing strategies does not produce the exact output when analyzing the destination brand equity. He points that it would be the same as using only the economic equation and ignoring the impact of the other two elements: the social and environmental. Even though, economic profit makes a lot of sense when analyzing consumer products, it creates narrow-mindedness when it comes to measuring a destination brand equity.

2.3. Valuation of Sustainable Tourism Destination

In this section, the thesis formally introduces the theoretical framework for evaluating and measuring sustainability of tourism destinations. The concept of measurement of sustainable development is surrounded by many challenges from conceptual and empirical domain. Hamilton & Atkinson (2006) state that sustainability needs to be measurable if it is to mean anything at all. The authors support that proper proxy indicators are important to provide valuable direction for policy makers. Further, the authors state that errors made by the improper selection of indicators will have impact not only on the well-being of the current population, but also on those living in the future.

Gartner (2014), United Nations (2008) and Hamilton & Atkinson, (2006) further support this notion arguing that sustainable development of tourism destination to have a long-term perspective has to be tracked, monitored, analyzed and therefore measured. In that regard, this thesis adopts the concept that for any valid development of sustainable tourism destination a practical set of meaningful indicators needs to be selected.

Perceived sustainability of a tourism destination and its perceived value has been a subject of the significant research effort. The flexible definition of the concept allows diverse interpretations and formulations of the concept (Iniesta-Bonillo, et al., 2016; Cernat & Gourdon, 2012; Higgins-Desbiolles, 2010). Consequently, because of the multivariate nature of sustainability and difficulties in collecting large amount of information required, there is no agreement on the widely accepted list of indicators. Further, Iniesta-Bonillo, et al. (2016) states that measurement of sustainability of tourism destinations is even more intricate because the effort includes measurement of the tourists' perception and the market.

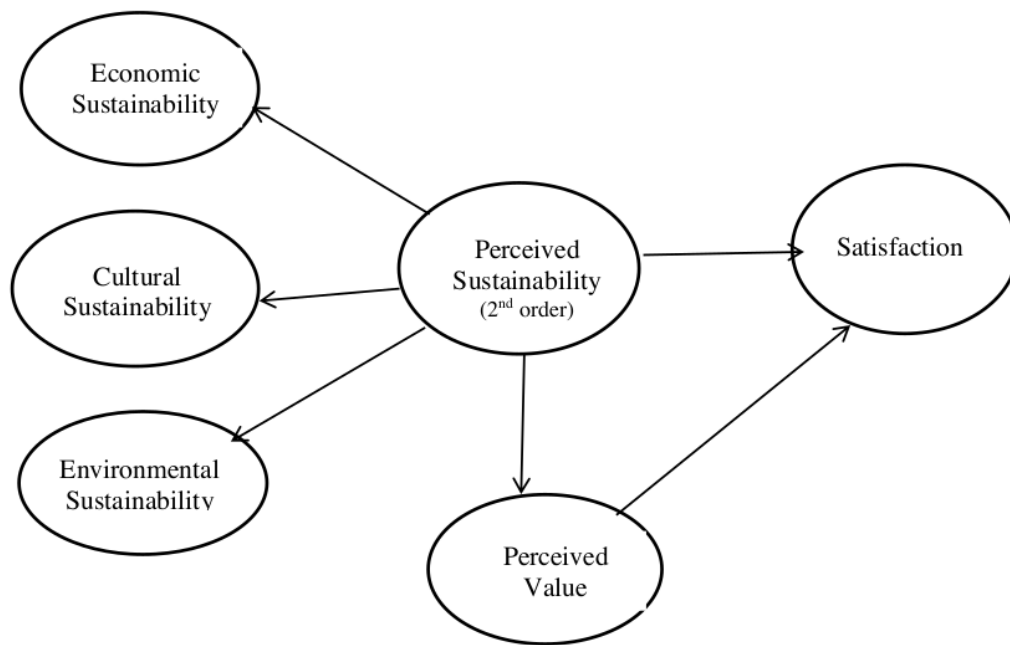


Figure 2.1 Conceptual Model (Iniesta-Bonillo, et al., 2016)

On the other hand, Hult (2011) argues that viewing the sustainability from the marketing point of view involves customers. In that sense, sustainability can be used as a strategic asset for achieving competitive advantage (Dwyer, Edwards, Mistilis, Roman, & Scott, 2009).

The next few examples from the research literature will shed more light into the relationships between the elements of destination sustainability on the elements of destination brand equity. To analyze how sustainability affects perception of a tourism destination, Iniesta-Bonillo, et al. (2016) proposed the model that supports multidimensional construct that includes economic, socio-cultural, environmental sustainability, perceived sustainability, perceived value and satisfaction dimensions. The model is presented in Figure 2.1., p. 36)

The corresponding survey measures data for elements: economic sustainability, cultural sustainability, environmental sustainability, perceived value and satisfaction while perceived sustainability is evaluated as a second-order construct (Iniesta-Bonillo, et al., 2016). The authors measured the three suggested sustainability dimensions by modifying the scale based on economic sustainability, cultural sustainability and environmental sustainability adopted from Andereck & Vogt (2000) and Byrd, Bosley, & Dronberg (2009), perceived value adopted the scale based on “worth visiting a destination” adopted from Chen & Chen (2010), and satisfaction adjusting the four-item scale of Kao, Huang, & Wu (2002).

The multivariate analysis of the conceptual model in Figure 2.1, page 38, proves significant relation between the perceived elements of sustainability and the second-order element of sustainability, positive and significant relation between perceived sustainability and perceived value, and positive significant relation between perceived value and satisfaction. The

robustness of the model was cross-validated on the data from two tourism destinations (Iniesta-Bonillo, et al., 2016).

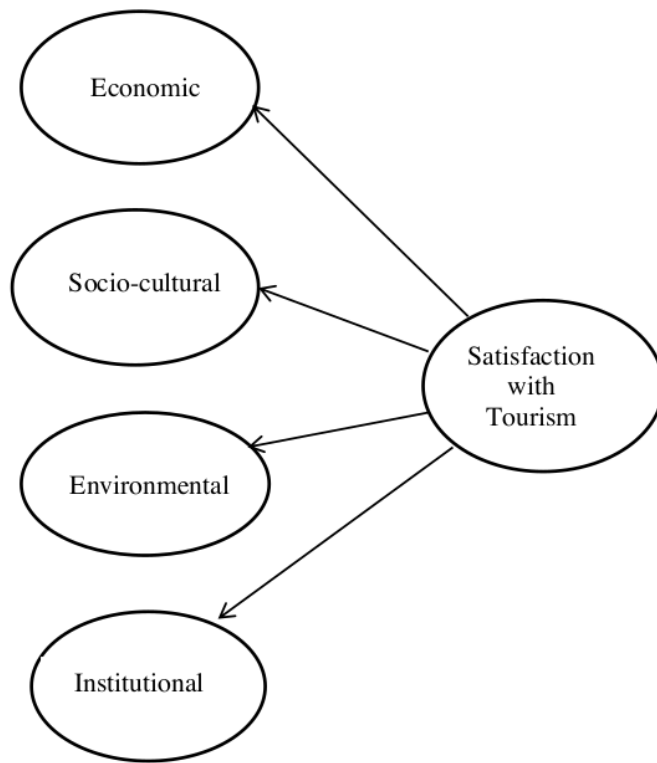


Figure 2.2. Conceptual Model (Cottrell et al., 2013)

According to Cottrell et al., (2013) sustainable tourism valuation, besides three standard elements: economic, socio-cultural and environmental should include institutional dimension. The authors are pointing that it would be difficult to measure sustainable tourism without including institutional perspective and role in supporting and mediating growth. Satisfaction element is defined by 5 observable variables: I can influence tourism development, tourism benefits me, importance of having sustainable tourism, tourism improves attractiveness of the area, and my quality of life has improved because of tourism.

The conceptual model, shown in Figure 2.2 on page 39, confirms that all four sustainability elements have positive significant impact on the satisfaction of the local residents with the sustainable tourism development.

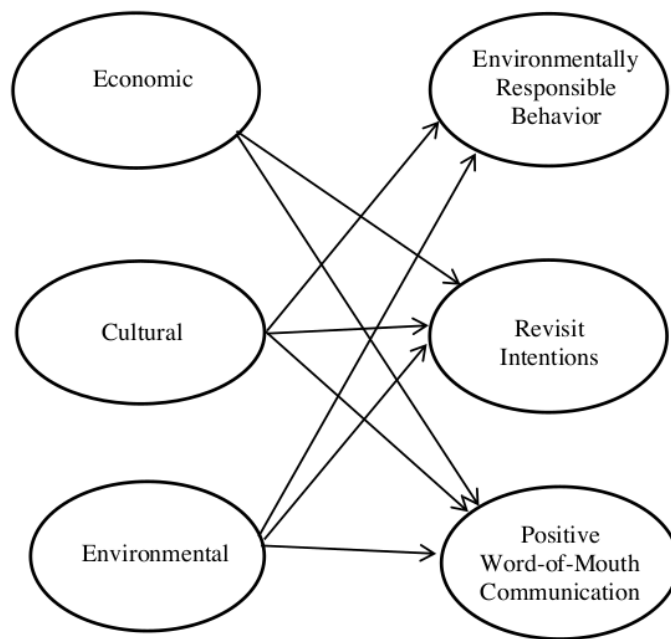


Figure 2.3. Conceptual Model (Kim et al., 2017)

In another study, authors Kim, Thapa, & Kim (2017) proposed the model in Figure 2.3 on page 40, to analyze the causal relations between the elements of perceived sustainability of tourism destination Jeju Island, South Korea and the group of dimensions consisting of positive word-of-mouth, behavioral intention and environmentally responsible behavior. The model supports conceptualization of the perceived destination sustainability as a multi-dimensional construct comprised of economic, cultural and environmental dimensions. The model's individual constructs use scale between two to four observable variables.

The authors suggest that word-of-mouth and revisit intentions are positively and significantly influenced by the three dimensions of perceived sustainability. In other words, study confirms that both aspects of destination loyalty, behavioral (word-of-mouth) and attitudinal (intention), are positively influenced by the elements of destination sustainability.

Another group of authors, Kim & Lee (2017) proposed the model in Figure 2.4 that captures indirect impact of price, advertisement, publicity and world of mouth on destination loyalty. The study considers destination brand quality, awareness and image as mediators. The survey is based on the data of the Chinese tourists visiting Seoul, South Korea. The study finds that price, advertisement, publicity and world-of-mouth have significant effect on the destination perceived quality, destination awareness and destination image.

Also, the study shows that destination awareness impacts perceived quality and destination brand image. Also, the study confirms impact of the perceived quality and destination image on destination brand loyalty. The findings in the four studies from the

research literature shown above, support the concept of the impact of the elements of sustainability on the elements of destination brand equity as a valuable research concept.

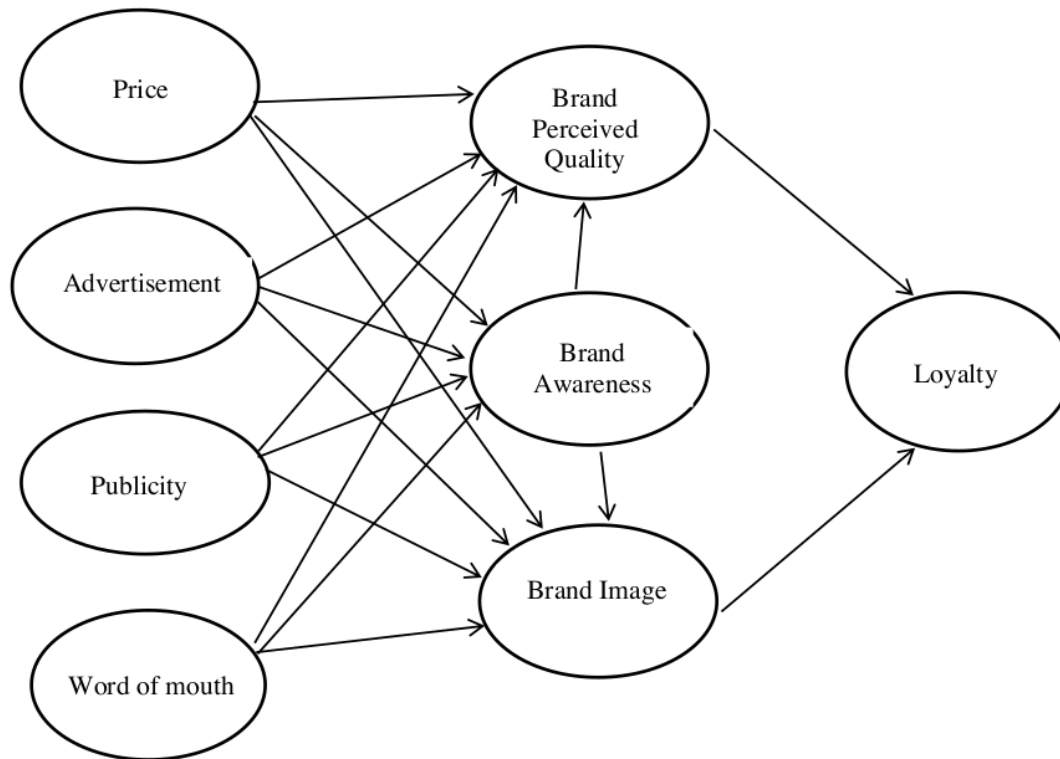


Figure 2.4. Structural Model (Kim & Lee, 2017)

Since the previous research on destination brand equity regards loyalty and image as the most influential elements to destination brand equity (Konecnik & Garnter, 2007), further implications are that if destination loyalty is positively influenced by destination sustainability then the same can be said for destination brand equity.

On the other hand, the environmentally responsible behavior is negatively influenced by environmental sustainability and positively impacted by cultural sustainability dimension. The negative influence of environmental sustainability is regarded to visitors not being aware of their harmful behavior on the natural resources (Kim et al., 2017).

Gartner (2014) and Buckley (2012) both agree that besides economic factors such as visitation, receipts, employment and other indicators, it is necessary to consider the overall long-term health of a destination from the perspective of the environment and residents' well-being.

To build a theoretical foundation for valuation of the sustainable tourism destinations the thesis considers theories from sustainability, social, holistic, and environmental domains, as shown in Table 2.2.

Table 2.2 Theoretical Foundation for Sustainable Development of Tourism Destination

Theory	Domain	Description	Constructs	Source
Measuring Sustainable Development	Sustainable Development		Economic, Social, Environmental	United Nations (2008)
Original Form of Integration	Sustainability	Three separate equations for measuring impact on sustainable destination brand equity	Economic, Social, Environmental	Lee & Kirkpatrick, 1997; Gartner, 2014
Social Exchange Theory	Social	Exchange Process	Power, Trust, Benefits, Cost	Ward & Berno, 2011; Nunkoo & Gursoy, 2012
Holistic Framework	Economic, Consumer	Aspirational, Co-creation, Eco-centric, Transformational, Shared Value, Optimization	Expenditure, Length of Stay, Seasonality	Porter et al., 2011; Scharmer et al., 2013; Dwyer et al., 2017; Dwyer et al., 2014; Barros et al., 2010; Weaver et al., 2000
Integrated Theoretical Framework	Environmental	Environmental Awareness, Pro-environmental Behavior	Motivation, Skill, Knowledge	Steg, et al., 2014

As mentioned above, the long-term focus of sustainable development must be measurable in order to verify whether it has been achieved. The same applies for the development of the destination brand equity. Since, the economic domain offers only arrivals and receipts to measure the value of the destinations, development literature on measuring sustainable development offers the answer (Atkinson, et al., 1997, p. 16).

The works of Lee and Kirkpatrick (1997, pp. 11-13) proposes an approach in measuring sustainable development called original form of integration. The model comes in two flavors: strong and weak and consists of the three regression equations: economic, social and environmental, as shown on page 42.

The equations of the original form of integration concept are operationalized by selecting the proxy variables that are believed important for the evaluation of a destination. In its operational format the equations of the original form of integration are presented below (Lee &

Kirkpatrick, 1997, pp.11-13). The proposed format corresponds to the concept of multivariate and structural equation modeling analysis.

$$S1 = aE1 + \dots + nEn;$$

$$S2 = aL1 + \dots + nLn;$$

$$S3 = aN1 + \dots + nNn;$$

$$S = S1 + S2 + S3$$

S1 = economic equation

S2 = social equation

S3 = environmental equation

S = output of the sustainable destination brand equity development

a-n = weights associated to each variable

E's = economic variables

L's = social variables

N's = environmental variables

Other works such as United Nations (2008, p.61) report suggests that besides the flows of goods and services, the well-being is created by non-market assets such as accomplishing self-fulfillment, radiating positive energy, and enjoying scenery. The non-economic values, as indicators of sustainable development that capture those assets must be also measured otherwise gains in revenue from the market would be inaccurate and misleading in isolation.

The point was made that the economic indicators alone are not sufficient and, therefore, have to be supplemented with indicators from the choice of non-monetary measures. The report states that besides economic indicators, the attention should be given to environmental and social ones. The report encourages use of environmental indicators related to natural landscape, pollution, water quality, air and climate. However, the report goes further to suggest that using only economic and environmental indicators without the social ones, will provide distorted picture of the sustainable development. Thus, proxy social indicators, that relate to collective action, trust and devotion to norms, membership to groups or associations, and collective actions must be considered (United Nations; 2008, p. 8).

Also, Gnoth (2007) indicates that traditionally, destination brands are conceptualized via functional, emotional and intangible values of a destination.

This position is consistent with the perceived quality of a destination (Chelmin, Fuchs, & Lexhagen, 2016). A destination sells its resources in different formats to the visitors with intention to match and satisfy visitors' expectations. Hence, destinations are promised to transform visitors' experience and fulfill their expectations.

Therefore, the destination promise, must include (1) evaluations of human, environmental and economic resources provided by a destination, (2) sustainability value from using the destination resources, (3) and the cost-benefit value for using those resources. Based on the proposed theoretical framework in Table 2.2., page 42, the thesis evaluates the concept of the sustainable destination development as shown in Figure 2.5. on page 44.

According to the concept presented in Figure 2.5., on page 44, the social equation is conceptualized based on the social exchange theory and includes power, trust, cost and benefits

as variables. Power is the ability of the local community to achieve the best possible outcomes for the well-being of its residents as well as tourists.

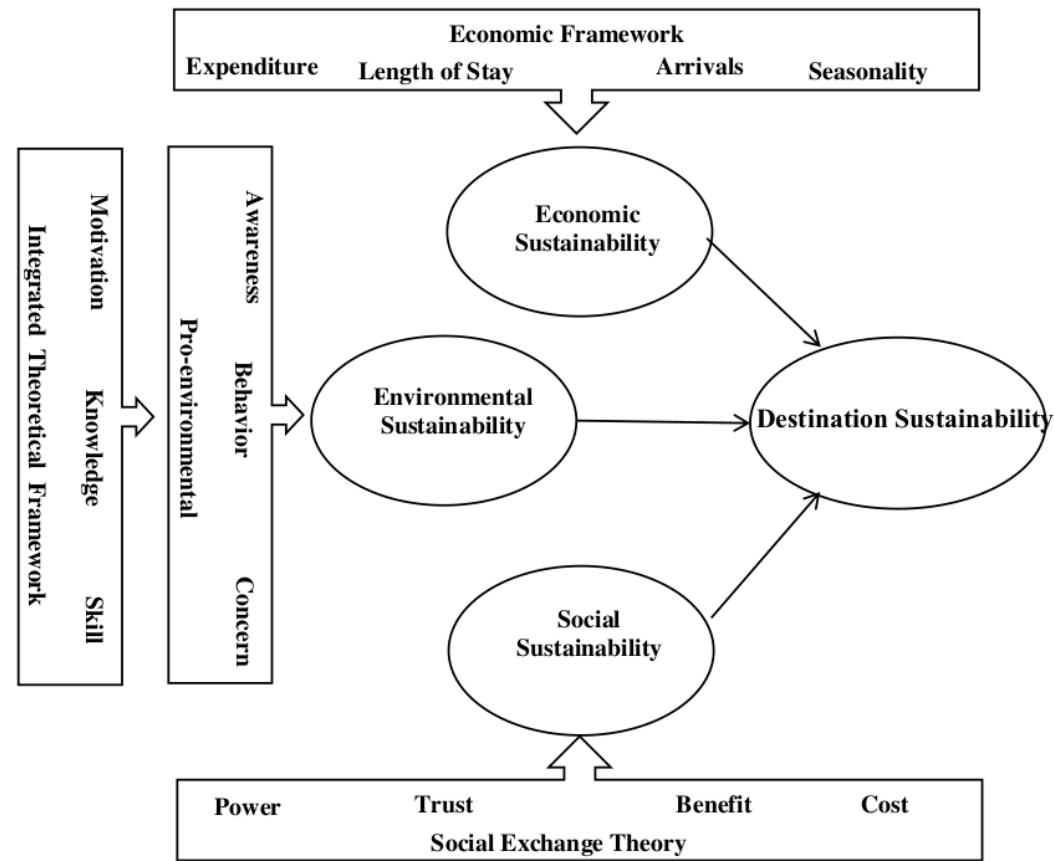


Figure 2.5 Sustainable Destination Development Concept

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On the other hand, trust is a promise of a destination as a brand, co-created by a destination and tourists and considered by tourists. Trust is a change-of-state because of

interactions between residents and the tourists. This relationship is in line with the works of Grönroos (2000, 2009) and Lindberg-Repo & Grönroos (2004) who suggest that products, services customers, competitors and media contribute to the promise of the destination brand.

Tourism brings both prosperity and destruction to the local community of any destination. Therefore, the cost-benefit scenarios as perceived by the local population must be factored in into any destination development equation (Davis, Allen, & Cosenza, 1988; Hung, et al., 2011). For the local community to endorse tourism it must have trust in the authorities who have the power to implement the benefits and minimize the cost (Nunkoo & Ramkissoon, 2011).

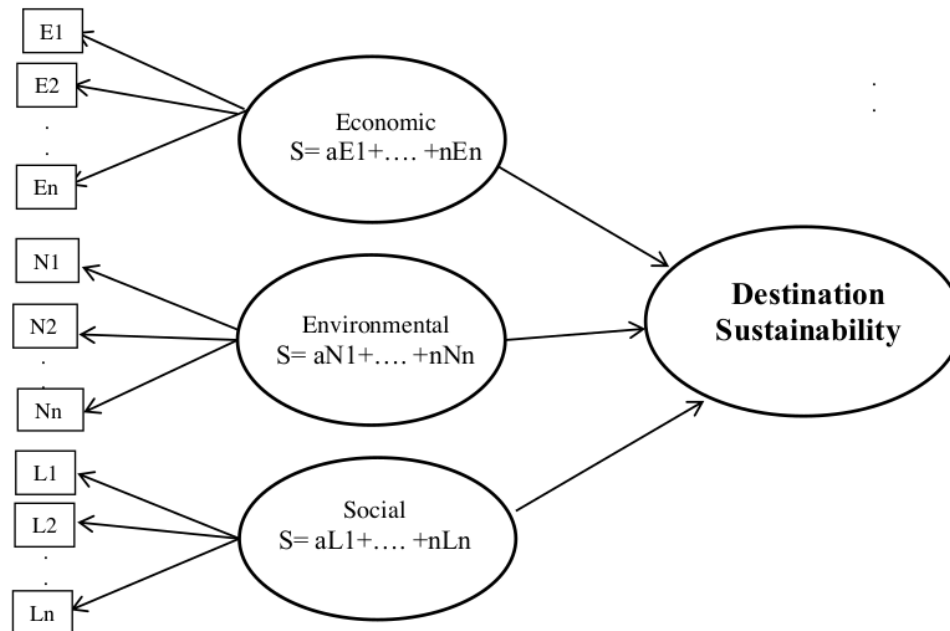
The economic framework outlined in the Figure 2.5, p. 44, supports expenditure, seasonality, length of stay and arrivals, a popular view among many scholars and academics (Dwyer, Duc Pham, Forsyth, & Spurr, 2014; Alen, Nicolu, Losada, & Dominguez, 2014). Finally, operationalization of the environmental equation focuses on the integrated theoretical framework which recognizes environmental awareness as an important step towards the pro-environmental behavior. According to Partanen-Hertell, Harju-Autt, Kreft-Burman, & Pemberton (1999) the environmental awareness, which as a higher-order entity, is a mix of the elements of motivation, skill and knowledge. Since sustainability of destinations is difficult to measure directly it would require a set of measurable indicators or suitable proxies (Evans et al, 2015; Simkins & Peterson, 2015).

Other authors also suggest that sustainability of destinations is difficult to measure directly (Fernández & Rivero, 2007; Buckley, 2001, p. 388). Therefore, to validate sustainability elements it would require a set of measurable indicators or suitable proxies from secondary databases (Houston, 2004, p161; Simkins & Peterson, 2015; Evans et al., 2015; Busse, 2010).

The basic concept is shown in Figure 2.5, page 44. In the economic domain those indicators are receipts, visitation, taxes, profits, and length of stay. In the social domain, we are looking for the measures of the resident-visitor interaction such as benefits, costs, trust and power while from the environmental angle we use pro-environmental indicators that measure environmental awareness and pro-environmental behavior such as motivation, knowledge and skill (Nunkoo & Ramkissoon, 2011; Nicolau & Mas, 2005; Alegre, Mateo, & Pou, 2010; Ram & Hall, 2015). The marginal increase in sustainability is tied to the gains in the value of the selected indicators. Traditionally, marketing campaign increases economic outcomes, measured through gains in profits, receipts, visitation, expenditure, employment and taxes.

However, the modern sustainability approach suggests the need to look for the long-term prosperity of destinations (Buckley, 2012; Crouch, 2010; Zouganeli, et al., 2012; United Nations, 2008). The value of a destination brand equity must be measurable if it is to have a long-term perspective. This is also true for the destination sustainability. Iniesta-Bonillo et al. (2016), Gartner and Konecnik (2010), Bojanic and Lo (2016), Budeanu, Miller, Moscardo, and Ooi (2015), Lind, Hanks, and Miao (2018), Grössling, Ring, Dwyer, Andersson, and Hall (2015), Uysal, Sirgy, Woo, and Kim (2015), Kristjánsdóttir, Ólafsdóttir, and Ragnarsdóttir (2017) state similarities, transformative changes, and causality between destination sustainability and brand equity development. Further impacts are highlighted by inputs from sharing economy (Cheng, 2016), economic sustainability (Pratt, 2015), sustainable dimension

on tourists behavior (Mihanyar, Rahman & Aminudin, 2015), host-guest interaction (Bimonte & Punzo, 2016), and sustainability messaging (Hanks, Zhang, Linea, & McGinley, 2016).



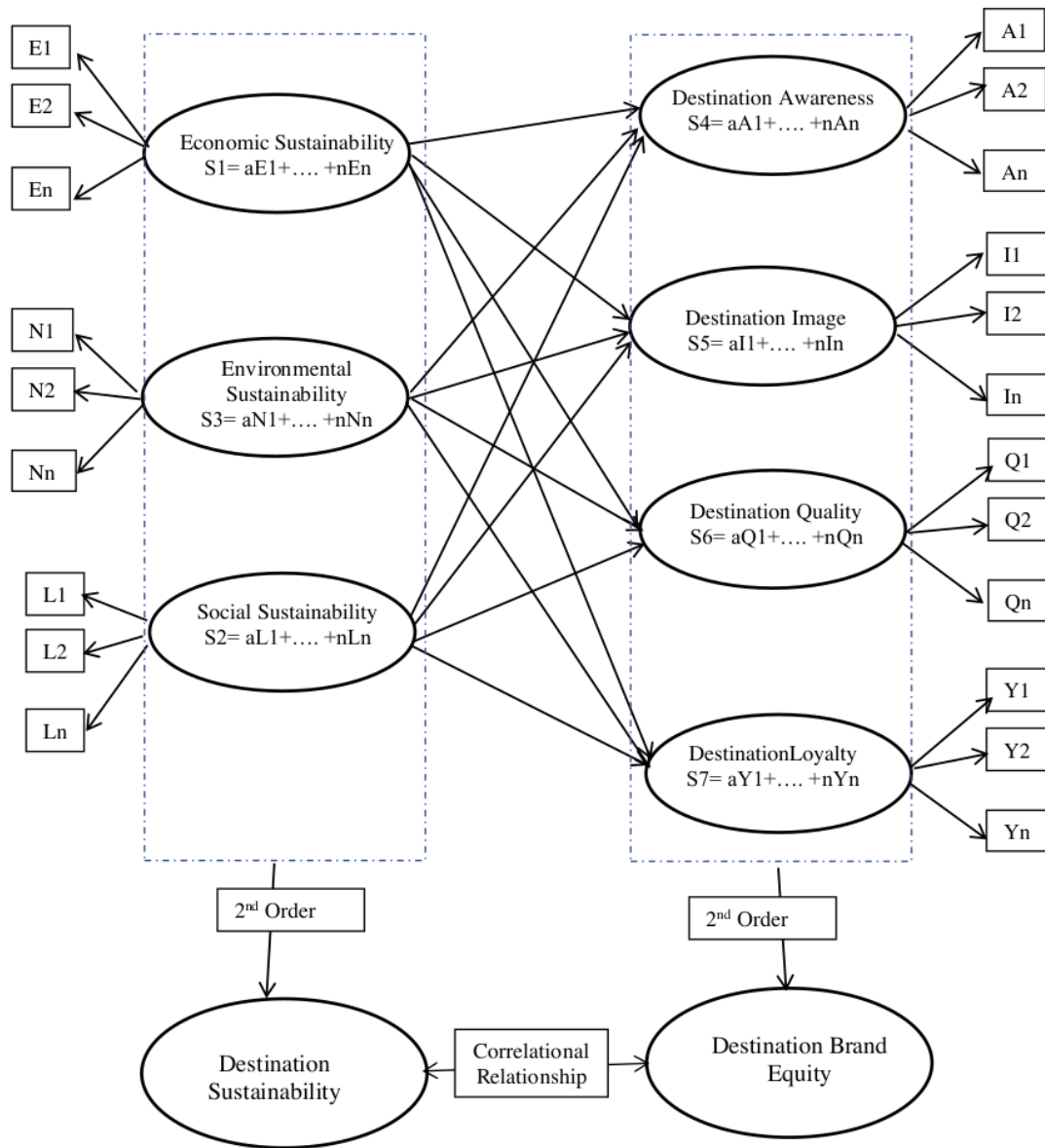
S output of the sustainable destination brand equity development; a-n weights associated to each variable; E economic variables; L social variables; N environmental variables.

Figure 2.6. Sustainability Development Concept (Based on Lee & Kirkpatrick, 1997)

As mentioned earlier, this is not a problem for the consumer products where markets and marketing strategies determine the overall value. However, for measuring brand equity of a destination we need to go a step further and implement proxy indicators.

Theoretical works by Gartner (2014), Crouch (2010) and Buckley (2012), and studies on the conceptual models proposed in the works of Iniesta-Bonillo et al. (2016), Lee & Kirkpatrick (1997) and Cottrell, et al. (2013) open the door for using a set of regression equations for measuring the impact of destination sustainable development on destination brand equity development.

This thesis supports a model that includes three equations of sustainability: social, economic and environmental and four equations of the destination brand equity: awareness, image, quality and loyalty. The proposed model combines sustainability model and the Aaker's (1991, 1996), destination brand equity model into one. The proposed merging is also supported by the works of Iniesta-Bonillo et al. (2016), Cottrell, et al. (2013), Crouch (2010), Konecnik & Gartner (2007) and Chekalina, et al. (2016).



S output of the sustainable destination brand equity development; a-n weights associated to each variable; E economic variables; L social variables; N environmental variables; A awareness variables; I image variables; Q quality variables; Y loyalty variables.

Figure 2.7 Proposed Model: Theoretical Framework

The concept that depicts merging the two models, is shown in Figure 2.7., page 47. In its operational format the equations of the extended form of integration are:

$$S1= aE1+.... +nEn;$$

$$S2= aL1+.... +nLn;$$

$$S3= aN1+.... +nNn;$$

$$S4= aA1+.... +nAn;$$

$$S5= aI1+.... +nIn;$$

$$S6= aQ1+.... +nQn;$$

$$S7= aY1+.... +nYn;$$

$$S= S1+S2+S3+S4+S5+S6+S7$$

S1= economic destination sustainability

S2= social destination sustainability

S3= environmental destination sustainability

S4= awareness destination brand equity

S5= image destination brand equity

S6= quality destination brand equity

S7= loyalty destination brand equity

S = output of the sustainable destination brand equity development

a-n = weights associated to each variable

E's = economic variables

L's = social variables

N's = environmental variables

A's = awareness variables

I's = image variables

Q's= quality variables

Y's= loyalty variables

2.4. Economic Impact on Tourism Destinations

Economic contribution to the destination brand equity comes from the monetary benefits that arise from consumption of the destination's resources. Destination arrivals and receipts are the most common indicators of a tourism destination economic activity in the traditional supply side economy. The traditional view of tourism suggests that the more financial outcome from visiting a destination, the higher the brand equity or value of a destination from the stakeholders' perspective. That view has been challenged by many scholars and researchers (Reisinger, 2013; Wijkman & Rockström, 2012).

Measuring tourism economic impact is a challenge since tourism doesn't fall into the well-known economic model based on input-output production scheme. Most of the literature on the tourism economy supports the traditional assumption that the benefits come from the growth and profitability (Dwyer et al., 2014). This unopposed view has entrenched its roots in the views of the traditional economy as well as in the lack of more serious interest by scholars in the recent time. The norm behind the view is the more is better. The fact is that uncontrolled consumption is deteriorating the resources of a destination (Lean, 2009; Reisinger, 2013; Pollock, 2015).

On the other hand, travel and tourism are a demand driven activities, that depend on the perception, experience and consumption of multiple destination resources (Dwyer, Tomljenović, & Čorak, 2017). Most of the countries generate anywhere from 1% to 10% of their GDP from tourism related activities. However, for small and island countries such as Maldives, Aruba, Seychelles, Macao, Bahamas, Cayman Islands and others, tourism is a major part of their GDP and the sole provider of the economic wellbeing of their citizens and economies.

Szmigin, Carrigan, & McEachern (2009) argue that a new profound demographic change is under way that promotes an aspirational consumer. The aspirational category of consumers is concerned about the total value not just the price. In its purchasing behavior, an aspirational consumer considers the total value from the purchase rather than from a single item. The full view becomes the norm. It is a type of high-involvement participation into the buyers' decision where new breed of tourists consider sustainability as the guideline. This segment of tourists is looking to actively co-create experiences, offerings and creative substance and take a proactive role. Consequently, they are more inclined to pay premium for the destinations' resources that have adopted and implanted the similar philosophy and practice. The new approach is to migrate from the era of consumption and indulgence to the era of responsibility and consequence. Increasingly, recent literature confirms that visitors follow the trend of changing their own lives and, at the same time, engage in transforming and co-creating changes at the destination (Lean, 2009; Reisinger, 2013; Pollock, 2015).

Economic brand equity of a destination comes from the economic value of the tangible and intangible destination resources that visitors have at their disposal for consumption. The more efficient consumption environment, the more exchange of the economic value. However, efficiency is not enough to produce the best levels of value. In the last decades, the norms of consumption have changed. Accumulation is replaced by the meaning, context, participation, substance, purpose and consequence (Lean, 2009; Reisinger, 2013; Pollock, 2015)².

According to the European Travel Commission (ETC, 2017) the number of socially responsible travelers is on the rise. This new market segment has an impact on the value of the destination's brand equity. Tourists are more aware of their buying behavior and are altering their choices to better fit into the segment's expectations. Deville & Wearing (2013) argue that today's tourism destination, if it wants to build brand equity, needs to go a step further. It needs to engulf and engage motivational elements such as authenticity and empathy and put them into the perspective of the meaning, change and purpose of human lives (Dwyer et al., 2017; Porter & Kramer, 2011; Scharmer & Kaufer, 2013).

There is a body of literature suggesting that these new trends are profoundly changing destinations (Szmigin et al., 2009; Lean, 2009; Reisinger, 2013; Pollock, 2015; Porter & Kramer, 2011; Scharmer & Kaufer, 2013; Dwyer et al., 2017). Traditional models of growth, based on more visitors and profits from consumption, are coming to a shaky ground. There more voices coming from stakeholders, academic, research and professional communities that favor replacing the ego-centric approach with the more eco-centric behavior which favors social, cultural, environmental aspects of a destination (Porter & Kramer, 2011; Scharmer & Kaufer, 2013; Dwyer et al., 2017). The same authors suggest that the move is necessary if a

² In Australia alone the consumer spending on products and services associated with the more sustainable and healthy lifestyle choices reached \$26 billion in 2017 "Lifestyles of Health and Sustainability" (LOHAS, 2017).

destination is to enter this new paradigm of creating, enhancing and supporting brand equity. Dwyer et al., (2017) argue that every destination economy needs to replace greed, corruption, power of interest groups and self-interests with co-creative, collaborative, responsible and holistic practices. Porter & Kramer (2011) call this new phenomenon “creating a shared value” which basically means that a destination needs to include social, cultural and hereditary factors into its visitors’ segmentation equation prior to developing products and services.

Growth and profitability maximization paradigm, that carbonizes the atmosphere and puts pressure on material and non-material resources, dominates the tourism industry (Buckley, 2012). However, there are growing trends to replace the maximization strategy models with the optimization development practices. The optimization in tourism management assumes that favorable elements are maximized, and the undesirable ones are marginalized (Hall, 2019; Sheldon & Dwyer, 2010). Many scholars and researches are suggesting that the focus should be on expenditure and the length of stay rather than on arrivals maximization (Dwyer, et al., 2014). The optimal practices will focus on increasing economic benefits by improving the existing systems. It would require staying away from maximizing arrival numbers and creating more resilient economies by reducing fluctuations in finances, oil prices, prices of commodities, foreign exchange rates and other factors of instability.

Historically, many research efforts have evolved around showing characteristics of the profitable destinations, ways to increase length of stay, visiting a destination during different periods of the year and destination affordability (Alen, Nicolu et al., 2014). Tourist expenditure is considered by many as a major economic response to the tourism demand. The topic of tourism expenditure has been a subject of the intensive research and analysis since it is historically a major interest to the destination stakeholders. The focus on tourism expenditure exceeds the focus on the cost to the local community, region and the overall global cost. Therefore, substantial academic scrutiny has been devoted to the returns of transportation providers, lodging, entertainment, local governments, destination marketing organizations (DMOs) and others (Dwyer et al., 2014). Deciding where to go and how much to spend has always involved a significant time and effort on behalf of visitors, more than in any other buying activity.

Alegre et al. (2010) argue that future tourists go through a complex decision-making process evaluating their travelling budget from different angles. The future income situation, job security, savings, credit crunch expectations are all taken seriously. Each of these factors is considered to have an impact on the perception of what the budget constrains should be and how much money is available for expenditure while at the tourism destination, (see Figure 2.8, on page 51. Further, Wang, Rompf, Severt, & Peerapatdit (2006) argue that several psychographic profiles such as innovators, thinkers, achievers and experiencers influence the amount of expenditure. People who are looking for excitement tend to spend more than those who prefer more tranquil experience on travel holidays. Also, people who are singles tend to spend more on accommodation than those who have families (Alen, et al., 2014; Kotler & Keller, 2016, p117-118). Other research elaborates that ego enhancement travelers and those who travel with the strong motives tend to spend more than the travelers with other motives (Mehmetoglu, 2007). To somewhat lesser degree, the travel motives, if combined with trip length, trip purpose, household income and age impact tourists’ daily travel expenditure. In addition to psychographic characteristics non-financial demographic factors of a household

such as family structure, life cycle stage of the family or individuals, disposable income, level of education and vacation length influence spending at the destination.

However, the research on budget flexibilities and dynamics of change in budget limits is still unexplored topics in comparison to the psychological and social bases of the tourism expenditure behavior (Nicolau & Mas, 2005; Alegre, et al., 2010; Ram & Hall, 2015).

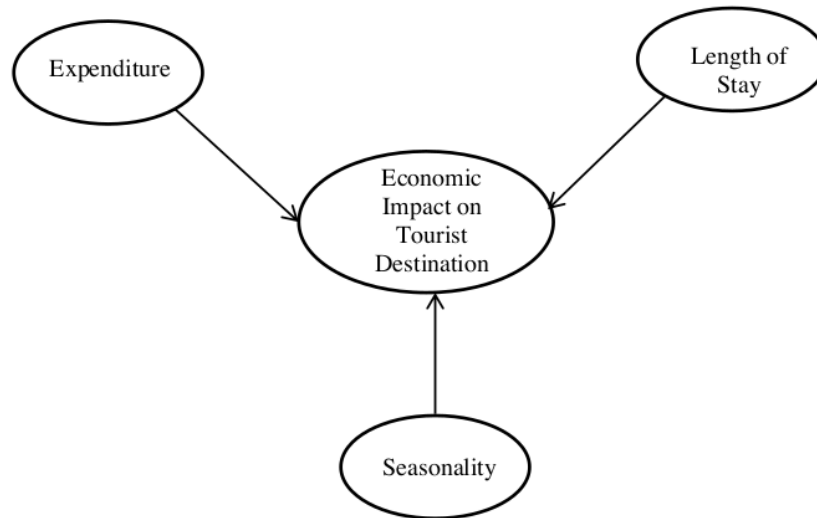


Figure 2.8 Economic Impact on Tourism Destination

On the other hand, average time of stay effects positively expenditure and lowers the cost and expenses at the local level, contributing to the overall brand equity value of a destination. Sociodemographic variables such as age, income, education, occupation, season and preferences make relationship between tourism revenue and the length of stay complex (Alen, et al., 2014). Nevertheless, there is a considerable interest on the subject and agreement among scholars that the average stay has fallen in the recent years (Thrane & Farstad, 2011). Staying in one place over the longer period reduces the operating and variable cost and creates higher economic contribution and therefore, has a positive impact on the destination brand equity (Barros & Machado, 2010).

The shorter lengths of stay not only reduce the variable cost but also have negative implication on sustainability which in turn reduces destination brand equity. Consequently, if destination is to keep the same number of nights, the number of arrivals needs to increase causing higher transportation expenses and increase in the greenhouse gasses with an overall negative impact on the destination sustainability. Wang et al. (2006) and Alen, et al. (2014) point that elderly visitors tend to stay longer while Barros, Butler, & Correia (2010) suggest that extensions of stay are more pronounced during the summer because of the warmer weather.

However, to understand the average length of stay and its strategic implications it is necessary to understand the motivation for the visit and factors that influence the timeframe and the motivation behind its adjustments (Gössling, Ring, Dwyer, C, & Hall, 2015). Researchers understand well that length of stay depends on the given traveling budget and the number of days. However, they are few literature papers that clarify how those days are selected from the visitors' point of view.

There are several studies that emphasize visitation in off peak periods highlighting effects of pricing, special events and activities and advantages of having summer vacations in the fall. However, seasonality stays an unexplored topic by the research community on visitors' habit of avoiding travel during certain parts of the year and having preference to spend holidays during specific time periods of the year.

Butler (2001) defines seasonality as a break in traveling during certain periods of the year that occur regularly and coincide between the times of regular migration by tourists. The reasons are associated with natural elements such as climate, school holidays as well as for the various social and economic reasons. In cases when seasonality doesn't follow an assumed or predictable path it creates problem by lowering the value of a destination with less arrivals and decreased income. Most researchers and academics agree that managing seasonality require either increasing demand or supply or both, as well as by designing new attractions and features (Weaver & Oppermann, 2000).

Measuring the overall economic impact on the destination brand equity is a complex issue. The traditional view that supports the concepts of growth and profitability are increasingly coming under the scrutiny of academics and scholars. The focus is shifting towards the more aspirational behavior which emphasizes efficiency and the full package of interactions. Therefore, the more universal approach to the economic impact on the destination brand equity is leading to the concept of expenditure, length of stay and seasonality.

On the other hand, Qiu et al. (2019) proposed a concept for tourism economic sustainability that include individual welfare, development control and economic positivity. The authors suggest that there is an absence of the sufficient evaluation on tourism economic sustainability, in spite of the growing worry about the negative economic influence of the tourism destination communities. As the global tourism industry is approaching its maturity it is facing complex challenges because of its negative impact on destination communities and the rapid deterioration of the environment and biosphere. However, the current focus of the sustainability assessing activity are focused on the social, economic and environmental aspects (Buckley, 2012). Qui et al. (2018) state that economic sustainability is mainly focused on macro level indicators such as GDP, employment, arrivals and investments, which fail to include a number of indicators that would be useful for economic interpretations of sustainability in tourism destinations.

2.5. Social Impact on Tourism Destination

Visiting destinations creates vast possibilities for the residents-visitors conflict causing an increasing uncertainty of the destinations' future from the tourism perspective. Recognizing this problem, researchers and academics have proposed different approaches to create a viable model that can deliver results in practice (Boley, McGehee, Perdue, & Long., 2014; Latkova &

Vogt, 2012; Yu, Chancellor & Cole, 2011).

Social sustainability, which is the element of the proposed model, has attracted the attention of many researchers, scholars and practitioners worldwide because of the impact the visitors can have on the local culture, crime rate, overcrowding, traditional way of living, and the overall health and prosperity of the local communities (Choi & Sirakaya, 2005; Stronza & Gordillo, 2008; Hung et al., 2011). The interest has produced studies which confirmed that increased visitations can indeed have an impact on the social resources of destinations, causing resentment of the residents towards visitors (Yu et al., 2011; Hao, Long, & Kleckley, 2011). Consequently, the cognition of the knowingness of a destination by both visitors and residents, if negative, lowers and impairs the brand equity value of a destination. As a result, the value of a destination is weakened when articulation is placed on the economic aspect, while the cultural, social and hereditary values of both residents and visitors are ignored (Yu, et al., 2011; Qiu Zhang et al., 2016). A plethora of studies on the effects of tourism on local destination communities were proposed by the research community but few pointed to the social aspects (Nunkoo & Ramkissoon, 2011; Andereck et al., 2011; Ward & Berno, 2011; Latkova & Vogt, 2012).

The increase in role of the social element of a destination brand equity intends to minimize the effects of the destructive elements on the residents of a destination by the visitors' behavior, their numbers and the overall consumption. The phenomenon, known as overtourism, has impacted tourism destinations in the last decade. Too many tourists, can cause a destination going overboard when its caring capacity gets overloaded (Ritchie & Crouch, 2010), causing deterioration of the social structures of a tourism destination, consequently lowering attractiveness and destination brand equity (Seraphin et al., 2018).

The negative impacts are manifested as deterioration of local culture, way of life, personal security, distribution of benefits and life supporting systems (Qiu Zhang et al., 2016). According to Nunkoo, Smith, & Ramkissoon, (2013) the social sustainability points to drugs, crime, traffic and alcoholism as major destructive forces on destinations.

Conversely, positive aspects of the increase in the destination's social value are contribution of economic benefits, such as increase in income, tax-base growth, employment possibilities, and standard of living (Nunkoo & Gursoy, 2012). On the other hand, non-economic benefits include increased global knowledge of the residents, following modern trends, quality of life, hospitality to foreigners and interest in the other cultures and places (King, et al., 1993).

The most important paradigm of social impact is presented in the social exchange theory which promotes the exchange of resources in social settings between individuals or groups (Ward & Berno, 2011; Nunkoo & Gursoy, 2012). The theory supports position that human conative behavior is a transformation of actions between the actors in the exchange process, which is mostly related to the tangible and intangible costs and rewards, see Figure 2.9, page 55. The pillars of the exchange process are the cost, benefit, trust and power elements on which the social exchange theory (SET) is based on. However, Nunkoo & Ramkissoon (2011) argue that in many studies the concepts of power and trust were not considered simultaneously. Further, the same authors suggest using the SET as the theoretical basis and argue that the residential support is based on the perceived cost-benefit structure. Nunkoo & Ramkissoon

(2011) suggest that the trust is determinable and depends on the levels of power associated to the benefits and costs.

According to Yang, Ryan, & Zhang (2014) the social effects are common in almost all stages of the tourism destination cycle but become a growing problem that causes social conflicts with residents during periods of consolidation and restructuring. Diedrich & Garcia-Buades (2009) argue that negative social effects may reduce carrying capacity of a destination as well as its overall value in the marketplace. According to Ritchie & Crouch (2010), destinations have a carrying capacity which indicates the implicit and explicit limitations of the resources for withstanding, supporting and satisfying the various visitors' demands.

The balance between costs and benefits of tourism needs to be addressed as an important element of any successful sustainable tourism development (Hung et al., 2011). Several studies concluded that positive attitudes towards tourism development and visitors are likely to occur when the views and interests of the local population are factored into the sustainable development equation (Hung et al., 2011; Davis et al., 1988; Aledo & Mazon, 2004; Diedrich & Garcia-Buades, 2009; Ward & Berno, 2011; Nunkoo & Ramkissoon, 2011; Qiu Zhang et al., 2016; Choi & Sirakaya, 2005; Stronza & Gordillo, 2008). The perceived benefits, combined with perceptions of power to achieve them, will result in trust and community endorsements that will influence tourism policies (Yu, et al., 2011; Nunkoo & Gursoy, 2012).

The modern concept, introduced by Foucault (1978), supported by the social exchange theory, considers power to be an intrinsic part of every social relation, a concept supported by the force association that exists because the parties want to get the best outcome from their relation. The contemporary approach to power suggests that one group of social relations is influenced by the behavior and positions of the other groups in the social context. Power alone can only bring the lack of trust among those with the less perceived power. Trust is considered a key ingredient for avoiding conflicts in the tourism sustainability development (Nunkoo & Ramkissoon., 2011; Fredline & Faulkner, 2000).

The social exchange model (Figure 2.9, p. 55) further suggests that the attractiveness of a destination and its value in the marketplace increases with the residents' power to influence tourism (Ward & Berno, 2011; Nunkoo & Ramkissoon, 2011). Consequently, residential support for tourism is based on the expected costs and benefits from tourism. Other research shows that residents can receive help from the new ideas and cultural exchange by hosting cultural entertainment events (Dyer, Gursoy, Sharma, & Carter, 2007; Andereck et al., 2011). Nevertheless, a few studies have conducted deeper interest into the subject of social sustainability of a tourism destination (Qiu Zhang et al., 2016).

As tourism destinations become increasingly popular among potential tourists the resources of destinations become under growing pressure to meet the consumption demands of tourists (Yu, Chancellor, & Cole, 2011; Hao et al., 2011). The situation creates vast possibilities for the residents-visitors conflict. Eventually, the residents, visitors and stakeholders become concerned of the increasing uncertainty of the destinations' future from the tourism perspective. Yu et al. (2011) and Hao et al. (2011) pointed out that tourism can indeed have negative impacts on the social resources of destinations causing resentment of the residents' population towards visitors. Consequently, the perception of the attractiveness of a destination in the eyes of both visitors and residents could deteriorate and reduce the brand equity value of a destination. On the other hand, tourists do not go to the places where they are not welcome.

Also, over-crowding is by many residents perceived as a basis for developing animosity towards tourism development. The most obvious reasons are traffic congestion, pollution, littering, noise, pressure on local services, vandalism, change in the tranquility and image of the place, increase in crime as well as price hikes of goods, services, properties and land (Insch, 2019; Seraphin et al., 2018). Brougham & Butler (1991) suggested that the behavior of the residents towards visitors is influenced by age, language, type of contact with the visitors, length of stay as well as personal and cultural traits. Similarly, Buckley (2012) argues that in developing countries income from tourism buys guns, appliances, cars, labor and real estate while in the developed nations the tourism revenue contributes to the urban infrastructure, consumption and imposes pressures on the protected areas.

Many world's famous destinations are under threat from overtourism for exceeding their carrying capacity (Seraphin et al., 2018). However, limitations have positive and sometimes stunning effect on increasing brand equity (Simkins & Peterson, 2015). Rapid growth of tourism infrastructure combined with the high visitation can result in dissatisfaction and revolt among residents at both individual and organizational levels.

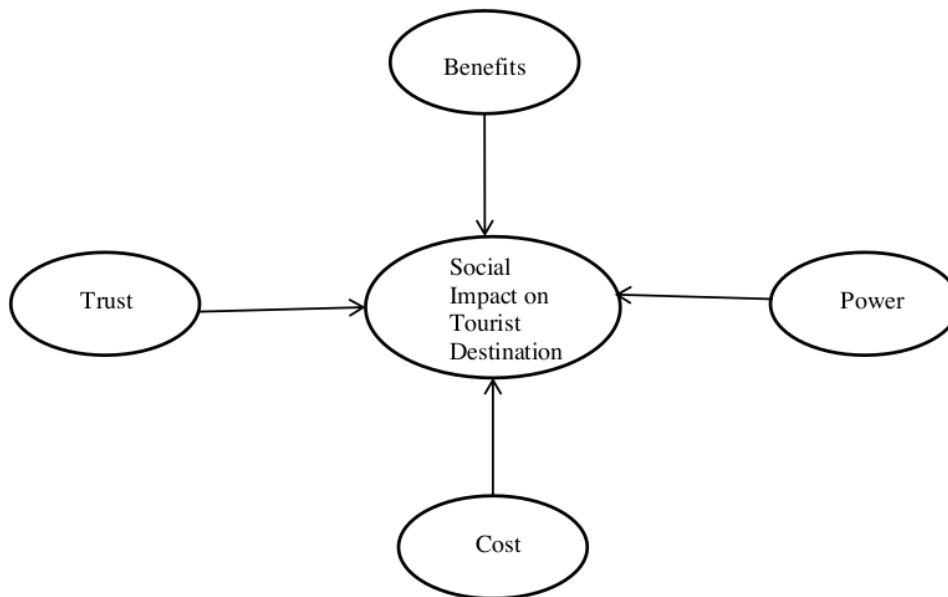


Figure 2.9 Social Impact on Tourism Destination

Tourism increases knowledge about other cultures, increases understanding between people of different backgrounds, sparks interest in foreign languages, increases communications, develops tolerance, respect and increases sharing of experiences and habits. Tourism creates trust between hosts and visitors and rely on government institutions to provide safe environment. Therefore, the host residents and their voices are recognized as an important element of any successful sustainable tourism development (Choi & Sirakaya, 2005; Stronza & Gordillo, 2008; Hung, Sirakaya-Turk & Ingram, 2011).

The omnipresent nature of power in tourism has attracted interest of researchers. Ap (1992) points that power is not an authoritarian concept but a part of the social exchange process with aim to provide a mechanism to the partners to take the best possible options in the exchange setting. Foucault (1978, pp. 92-93) stated that:

“power is everywhere not because it embraces everything, but because it comes from everywhere ... it is produced from one moment to the next, at the very point, or rather in every relation from one point to another”.

With this notion, Foucault has turned the traditional view on power upside down. Similarly, Foucault (1978) has proved connection between the power and the truth, saying that the truth is a construct of the economic and political forces inclusive to the social network. Otherwise, in the traditional perspective, the power is the ability of one or group of persons to impose behavior on the other person or a group.

Leonidou, Talias, & Leonidou (2008) and Nguyn & Rose (2009) argue that trust increases confidence that promised outcome will indeed be performed by the other party in the social exchange context. Consequently, trust is recognized as the vehicle for maximizing society interests, economic development and government institutions which explains why governments are heavily involved in tourism (Nyaupane & Timothy, 2010).

Following the Ap's (1992) work, many academics and researchers did not include trust as a main social variable when researching the destination residents and the tourism industry (Gursoy et al., 2010; Nunkoo & Gursoy, 2012; Nunkoo & Ramkissoon, 2011; Ward & Berno, 2011). Instead, some of them used local power of residents; however, no progress was made (Qiu Zhang et al., 2016). Further, trust and power are key variables in the social exchange theory and, therefore, should be considered simultaneously in any research. Both concepts are considered vital in predicting and determining behavior of the parties involved in different situations and contexts in their social relationship. Bachmann, Knights, & Sydow (2001) made an interesting point that power is a precondition rather than an alternative to trust.

Also, some researchers consider power as an alternative to trust, however, with different effects on the outcome (Walker, Bisset, & Adam, 2007). According to Farrell (2004) power influences trust because it influences the other party's evaluation process by examining the worth of the relationship of the social exchange and cooperation. Further, Farrell (2004) argues that such a relationship between power and trust can exist if there is balance of power between the parties. Also, several studies suggest that power has positive influence on trust and creates positive ground in the social exchange scenario (Oberg & Svensson, 2010).

Consequently, support for the tourism by the residents is based on the perceived cost and benefits from the tourism. Research shows that residents benefit from the new ideas and cultural exchange (Besculides, Lee, & McCormick, 2002), by hosting cultural events (Dyer, Gursoy, Sharma, & Carter, 2007 and entertainment events (Andereck & Nyaupane, 2011). The cost from tourism comes from overcrowding, increase in traffic, noise, pollution, drugs, alcohol, prostitution, invasion of privacy and way of life.

Besides the fact that there are many inconclusive studies on the negative impact of cost on the overall brand equity value of destinations (Dyer, Gursoy, Sharma, & Carter, 2007) there are both theoretical and empirical data from the literature that shows otherwise (Yoon, Gursoy,

& Chen, 2001; Gursoy & Rutherford, 2004). Also, the position among academics and scholars that tourism development comes with a cost to destinations is not the new one (Gursoy, Chi, & Dyer, 2010; Nunkoo & Ramkissoon, 2011; Latkova & Vogt, 2012).

2.6. Environmental Impact on Tourism Destination

Environmental impact on the brand equity of a destination comes from the visitors', stakeholders' and hosts' perception that the bio-capacity, one in which a destination resides will remain constant and even flourish. Despite a significant body of literature on the environmental issues and their influence on the metabolic health of destinations around the globe, defining the environmental brand equity of a destination is still a challenging task. Ritchie & Crouch (2010) and Simkins & Peterson (2015) suggest that every destination has its own carrying capacity. According to Harju-Autti & Kokkinen (2014) the current literature recognizes that the reasons behind these challenges are, among other things, inconsistencies and unclear definitions, no consensus on the common model, conceptual complexities, most studies only cover developed countries, and the elements of the image theory (cognitive, affective and conative) are not clearly identifiable (Konecnik & Gartner, 2007). To overcome the above challenges, the thesis proposes the concept of environmental awareness which combines the elements of motivation, skill and knowledge into the higher-end entity (Partanen-Hertellet et al., 1999). However, it is still a challenge how to conceptualize the environmental awareness since there is no universal method for measuring and evaluating (Harju-Autti & Kokkinen, 2014).

Pro-environmental education, which precedes the pro-environmental behavior, is recognized as an important step in defining solutions for solving the bio-spherical environmental problems (Stapp, et al., 1969). In other words, producing knowledgeable citizens who are aware of the problem, motivate them to do something about it and equip them with the skills how to come up with solutions, is the framework of environmental awareness as proposed by (Partanen-Hertell, et al., 1999). In other words, increasing environmental awareness among the citizens would require relevant problem-solving skills, increased motivation and problem-recognition skills (Partanen-Hertell et al., 1999), see Figure. 4.3, page 58.

The social psychology considers motivation to engage in the pro-environmental behavior as a set of attitudes, values and environmental concerns. The values are overshadowing goals that are of a significant importance and which remain stable in substance and meaning over time as opposed to goals which are motivational factors in each situation depending on the values as well as situational clues. Values are desirable goals that are guiding principles in our lives which incorporate elements of norms, beliefs, intentions, behaviors and attitudes (Schwartz, 1992; Gardner, 2002). Literature shows that collective and individual interests are strongly guided by the environmental beliefs, norms, attitudes and actions (Steg, De Groot, Dreijerink, Abrahamse, & Siero, 2011). The research studies show four types of values: hedonic, egoistic, altruistic and bio-spherical. The former two, hedonic and egoistic are also known as self-enhancement goals while the latter two, altruistic and bio-spherical, are classified as self-transcendence goals (Steg, Perlaviciute, Van der Werff, & Lurvink, 2014).

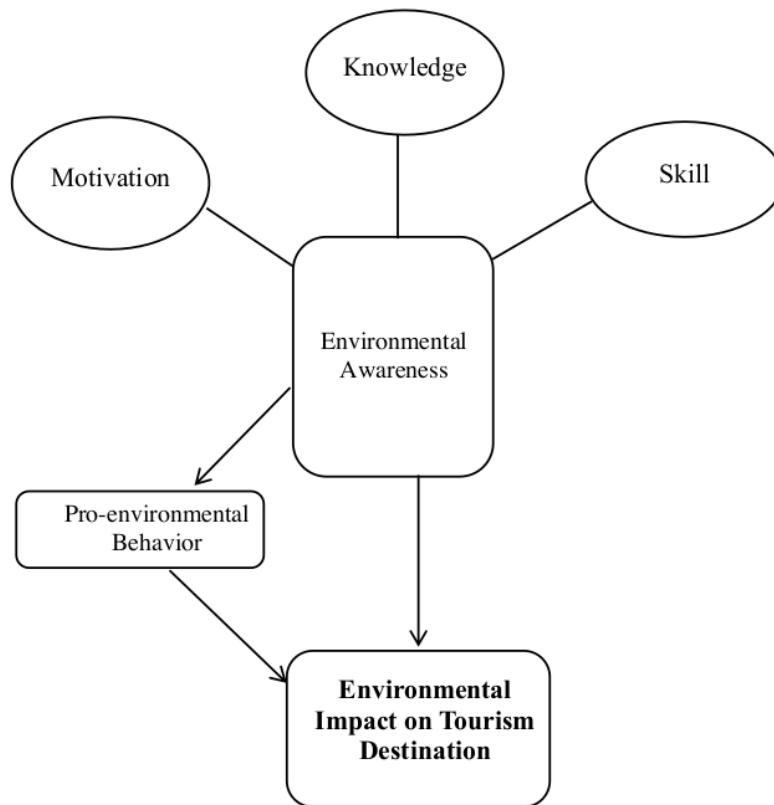


Figure 2.10 Environmental Impact on Tourism Destination (Based on Partanen-Hertel et al., 1999)

Research literature suggests that all four types of values have a significant influence on the pro-environmental behavior and therefore on the brand equity value of a destination (Steg, et al., 2014). Hedonic values manifest concern for bringing down effort and enhancing a person's feelings while egoistic values reveal tendencies of one person to get and preserve wealth. On the other hand, altruistic values are focusing on the wellbeing of others while biospherical values are related to the state of the nature and environment as an own interest (Steg, Bolderdijk, Keizer, & Goda, 2014).

Also, researchers view the environmental concern as the third important ingredient of motivation. Dunlap & Jones (2002) state that the environmental concern stands for willingness to solve environmental problem and the level of the individual awareness of the environmental problems as well as the support of effort to pursue the potential solution. Next, Dietz, Fitzgerald, & Shwom (2005) reveal dualistic nature of the environmental concern suggesting existence of a belief that something is at risk and the feeling that something is important. Also, Franzen & Meyer (2010) point out that the state of the environmental concern of a society has an impact on the pro-environmental behavior.

On the other hand, knowledge, as an element of the environmental awareness is a collection of information, facts, opinions, positions, beliefs, and norms people have about environment they live in and one they intend to visit, (see Figure 4.3, page XX). Worthy (2008) argues that more than just a knowledge, which is often abstracted and intellectualized, is needed to produce the desired effect on the environmental awareness. However, Harju-Autti and Kokkinen (2014) agree that the knowledge is a vital ingredient in understanding the environmental awareness.

Finally, the third element of the environmental awareness is the skill or know-how to improve the environment once we develop necessary level of motivation and knowledge, see Figure 2.9, page 55. In general, learning skills such as recycling, reusing and reducing take some time to master before they are used to enhance the environmental awareness.

If the perception of the environment is positive, which is the case with well-managed, not overused, attractive, authentic and flourishing environment, the brand equity of a destination increases and will result in more interest to visit. On the other hand, negative perception about a destination's environment will cause lower interest for visiting, spending as well as spreading the negative word-of-mouth and considering switching options. All of this will cause deterioration of the visitors' perception of the value of a destination and impact the destination's economic capacity. Eventually, a destination will become less visited and economically unattractive to the local population and stakeholders. Unless there is another industry around, to keep the destination going, a destination will deteriorate economically. Harju-Autti and Kokkinen (2014) argue that the overall state of the global environment is deteriorating. Along those lines of research, the expected outcome would be a reduction in the number of visitors on a global level. On the contrary, year after year, the number of visitors is continuing to grow suggesting that pro-environmental behavior is not catching up with the state of the environment. Thus, the focus is on the ways how to change human behavior to encourage pro-environmental behavior and reduce overtourism.

So far, most of the research was done in the developed and industrialized countries. However, there is a growing tendency to expand the research to developing countries to improve validity and the global acceptance of the common environmental procedures and models (Chiu, 2009). On the other hand, Klöckner (2013) proposes a meta-model that includes elements such as social norms, personal norms, attitudes, behavioral control that all together contribute to the intention to act. Further, Steg et al. (2014) contributed with their integrated theoretical framework that proposes two routes how to encourage into pro-environmental behavior. First one is to strengthen the normative goals and the second one is to reduce the cost of environmental options. According to the proposed theory many of the pro-environmental actions are result of the conflict between normative goals (e.g., protecting the environment) on one hand, and the hedonic (e.g., enjoyable) and gain goals (e.g., saving money) on the other hand (Lindenberg & Steg, 2007; Steg & Nordlund, 2012).

According to the relevant studies, the problem lies in the human behavior, which is governed by different motivations or goals which, in turn, can be influenced and directed in a desired way (DuNann Winter & Koger, 2004; Vlek & Steg, 2007). Even though significant body of literature exists on this topic there is a very little literature on how to cluster the factors that influence the behavior in a theoretical context.

Further, the argument is made on what motives or goals are needed to influence the best pro-environmental behavior. Steg et al. (2014) have come up with the integrated framework for encouraging a pro-environmental behavior as an attempt to highlight the roles of relevant variables and treatments affecting the pro-environmental behavior. Lindenberg & Steg (2007), in its goal framing theory, state that normative, hedonic and gain goals or motivations have the most influence on the pro-environmental behavior in each situational setting.

Normative goals motivate people to adopt behavior that is proper for supporting and improving the health of the environment such as preserving unpolluted water sources, taking only pictures and leaving everything else behind, keeping the environment clean and protecting the wildlife. Hedonic goals, on the other hand, influence human feelings towards seeking pleasure or excitement. Finally, the gain goals motivate people who praise economic and status benefits. According to the goal framing theory, the strongest goal will set the course on the dominant behavior and cognitive process, causing the other motives to either increase or decrease.

Regarding ³⁹ which goals motivates people to act in a pro-environmental manner it is usually result of the conflicts between the hedonic and gain motives on one hand and normative goals on the other hand (Lindenberg & Steg, 2007; Steg & Nordlund, 2012). Even though, the environment-damaging actions are less suitable they are very often less expensive, more pleasurable, more exciting, less time-consuming, less labor-intensive than pro-environmental options. For instance, public transportation is less damaging for environment and climate but is less enjoyable, exciting and flexible than taking the personal car. Organic food is less damaging for the environment, but it costs more.

Therefore, Steg et al. (2014) are raising question of how can we promote pro-environmental choices despite the conflicts among the motivational elements? The integrated framework theory offers two possible solutions. First one is that the perceived results of the ³⁹-environmental behavior can be altered so the costs and enjoyment (comfort, expense, convenience, effort, money) of the pro-environmental behavior can be reduced and the benefits increased. Second solution, one that is gaining more attention with the research community, is to put emphasis on the behavioral choices that favor pro-environmental outcomes by increasing normative motives and reducing hedonic and gain options. Idea is to focus on environmental outcomes regardless the cost and inconveniences.

3. DESTINATION BRAND EQUITY

In the first part, the chapter presents the general review of the brand equity concept, evolution and measurement. The origins, development and interest for brands and brand equity concept is highlighted in the historical context that dates back to the growing popularity of mergers and acquisitions in the late 1980's related to the outsourcing corporate strategy.

The phenomenon of brand is explained and the reasons behind growing marketers' interest in intangible value of companies' assets. The chapter exposes development efforts for defining the model and its dimensions for measuring brand equity. Different school of thoughts on measuring destination brand equity are explained.

Next, historical perspective of the destination brand equity is presented, its origins in the tourism destination literature, development and formulation of the measurement models. The significance of the destination brand equity is highlighted for different tourism settings with emergence of the common model.

The chapter elaborates on the differences between products and destinations, explains why destinations are so unique and provides answers behind the fact that non-branded destinations do not exist.

Further, the thesis offers in-depth analysis of the destination brand equity elements used in the proposed model: destination awareness, destination image, destination quality and destination loyalty. The contribution and internal structure of each element of the destination brand equity is highlighted.

Finally, the remaining twelve hypotheses are formulated in reference to the four elements of destination brand equity. Separate formulation is required to better capture the context and relationship between the elements of destination sustainability represented by economic, social and environmental sustainability with the elements of destination brand equity represented by destination awareness, image, quality and loyalty.

3.1. Brand Equity Concept: Evolution and Measurement

A brand is a resource that generates future economic benefit to the company (Sinclair & Keller, 2014). Also, a brand reflects substance (Chigora, 2015; Chiu & Ho, 2015), a projection of value, a bridge from the past to the future (Keller, 2013). A brand, stands out, stands for, promises, characterizes, inspires, informs, makes distinctive and memorable, fulfills, satisfies and above everything it makes a person's aspirations and reality come together. It is a phenomenon, which for a long period of time has gained marketers' attention as a mean of capturing consumers' share of interest in marketing offerings (Mariutti & Tench 2015).

As the process of mergers and acquisitions intensified during the 1980s, companies started to show an interest in the intangible value of its assets. As a result, the concept of brand equity was born (Keller, 2013). Besides all the controversies that followed its start as a concept, many agreed that the concept of brand equity, as a reflection of the brand value, is a good starting point in many marketing analysis (Aaker, 1991,1996); Keller, 1993, 2013). The same idea still prevails today (Keller, 2013; Chigora, 2015; Simkins & Peterson, 2015; Lopesi, 2011; Mariutti & Tench, 2015; Chiu & Ho, 2015).

To be able to manage brands, marketers need to measure brand's value or brand equity. However, measuring brand equity proved to be somewhat of a controversy (Keller, 2013). Since introduction of the brand equity concept it meant different things to different people. One school of thought considers brand equity as a differential effect of brand knowledge on a customer response (Keller, 2013). The other school of thought defines brand equity as a set of assets connected to the brand's elements, such as symbol, name, color, etc. that creates either positive or negative value contribution by product or service to an organization or an individual (Aaker, 1996). Yoo and Donthy (2001) define brand equity as a difference in response to branded and unbranded version of the same product with the same marketing activity. Similarly, Srinivasan, Park, and Chang (2005) defines brand equity as an incremental value obtained by the brand in comparison to the underlying unbranded product.

In addition to differences in defining the concept of brand equity, same problem exists in defining dimensions or the elements of the brand equity suitable for measurement. Keller (2013) proposes brand awareness and brand image as the two major building pillars of brand equity. Other suggest attribute and non-attribute dimensions (Srinivasan, et al., 2005). There was an attempt to use actual consumer purchase behavior and market behavior to define the brand equity (Kamakura & Russell 1993). Another interesting model proposes brand loyalty, perceived quality, associations, quality and market behavior (Aaker, 1996). Yoo and Donthy, (2001) proposed a scale for measuring brand equity that included brand loyalty, quality, awareness and associations. Since the scale was based on both Keller's and Aaker's models, the scale inherited unknowns and uncertainties related to those models. One concern was lack of explanation on how those elements are contributing to brand equity and if they are, in fact, an exhaustive set. In most cases, only indications exist (Gill & Dawra, 2010).

Since there is no consensus on how to define the brand equity, so, there is no consensus on how to measure it (Kamakura & Russell 1993). The same authors propose two brand value perspectives: one to the firm and the other to the consumers. Unlike brands and branding, which belong to the realm of organizations, the value of the brand equity is in the minds of those who are using it (Keller, 2013). More precisely, human mind influences the value of the brand equity (Keller, 2013). The strength of the brand equity lies in what humans think, feel, associate, perceive, imagine, expect, experience and love about the brand (Keller, 2013). So, feeling of the mind, in combination with the voice of the heart, leads to an extensive feeling of loyalty, resonance and strong attachment to a brand (Keller, 2013).

If we look the Keller's model, it seems that if we can measure brand awareness and brand image than we can have enough data to explain and measure brand equity (Keller, 2013). The same model defines brand awareness as the ability to recognize and recall the brand (Keller, 2013). On the other hand, Keller's model defines image as a set of attributes and benefits coming from the brand (Keller, 2013). On the other hand, Gill and Dawra (2010) suggest that indirect measurement can explain relationship between recall and recognition with the brand knowledge. However, indirect approach does not measure strength, favorability and uniqueness. Therefore, there is a need for a set of more direct measures.

On the other hand, Aaker's model proposes five dimensions that constitute the brand equity: loyalty, perceived quality/leadership, associations/differentiations, awareness and market behavior (Aaker, 1996). However, the author has not given any clue what indicators to use to measure it (Gill & Dawra, 2010). Brand loyalty relates to satisfaction, attitudinal and

behavioral loyalty and price premium. Perceived quality and leadership explain the second dimension. Third dimension, associations and differentiation measures superiority and the reason to buy. Awareness captures top-of-mind awareness, recognition, recall, dominance, knowledge and opinion, while market behavior is associated with market share and distribution depth (Aaker, 1996). Nevertheless, the model does not introduce these elements as the exhaustive set that defines the brand equity. Rather, the proposed set stays at the framework level (Gill & Dawra, 2010).

Next attempt to measure brand equity was made by (Yoo & Donthy, 2001) who borrowed perceptual dimensions from Keller (2013) and Aaker (1996) such as loyalty, perceived quality and awareness/associations to construct multidimensional scale to measure brand equity. However, there is no strong explanation if the proposed scale has captured and explained brand equity sufficiently. Also, Park & Srinivasan (1994) introduced attribute and non-attribute-based concept of brand equity which considered brand equity as the sum of the attribute and non-attribute-based components. The difference between subjectively and objectively measured attribute-based preference is attribute based while non-attribute-based element is a difference between brand preference and its attribute-based element. Besides its promising concept, the expert's opinion on subjectivity is in question since it would be hard to consider it as objective (Dwyer, et al., 2014).

Erdem (1998) makes interesting point about the benefit of the brand equity as a signaling element of a brand's market position. The signal stresses out the credibility in the imperfect and asymmetric market, driven by dynamic interactions between organizations and customers. The insights offered by the brand equity signal reduces information cost, increases perceived quality and decreases customer perceived risk (Erdem, 1998). Today, reputable brands face a fierce competition in the global environment (Popescu, 2007). The same brand equity rules apply to a tourism destination market where less reputable destinations have even more difficulties competing for visitors.

Next, Kamakura & Russell (1993) proposed measuring brand equity using purchase behavior of consumers. The measurement instrument used scanner panel data to obtain the actual purchase behavior which in this case was regular market conditions in which buying occurred. The same authors consider brand equity as the value attached by consumers to the brand after discounting the current price and advertising exposure. Next, the model considers tangible and non-tangible brand values. Tangible value is one arising from the physical properties of the brand while intangible values are the non-physical functions and the associated values. Limitations of this measure are competition and availability. The method is more exact and reliable in the developed markets.

The country-of-origin of a tourism destination serves as a cognitive cue for visitors to make their selections (Sharma, 2011). The cue is often an intangible attribute that consumers resort to when data about a product is not available or hard to find. The country-of-origin concept helps consumers develop perception about a destination based on the country's image (Sharma, 2011). Country brands based on may have emotional and symbolic meaning to the national identity. Brands are in general better received if they come from the countries with favorable images (Sharma, 2011). In other words, reputation of the country influences attractiveness of a tourism destination (Parkvithee & Miranda, 2012).

3.2. Destination Brand Equity: Historical Perspective

Destination brand equity has its origins in the destination image (Chi & Qu, 2008; Konecnik & Gartner, 2007). Historically, destination branding evolved from destination image, which owns its popularity to a Boulding's (1956) publication "The Image: Knowledge in Life and Society". Boulding argues that image is a pre-existing stereotype or a perception of the world that surrounds us and help us in interpreting world traits, developing opinions about the world and interacting with the world. Boulding went further to introduce the model with cognitive, affectionate and conative elements.

Ever since the introduction of destination branding in tourism in a scientific and research format by Richie & Richie (1998) destinations have been viewed as brands. However, the slow progress on the further development of destination brand concept was attributed to the lack of foundational theories. Scholars and academics relied mostly on the marketing concepts behind the consumer product brands, however, the works of Cai (2002) started to change this. His argument was that destination image is an important dimension of the destination brand equity but not the only one. The effort shifted towards setting up the theoretical foundations for better understanding the destination brands. The works of Blain et al. (2005) confirmed that image is a main dimension of destination brand, but added differentiation, consistency and recognition. Literature that followed, introduced the concepts of loyalty, quality and awareness to the destination brand equity (Milman & Pizam, 1995; Oppermann, 2000; Konecnik & Gartner, 2007).

Brand equity of a product is a well-defined concept in the marketing literature. It refers to a value of a product based on returns generated from the product's marketing strategy. In other words, brand equity is a value of a product associated with a specific name, appearance, logo and theme. The value of the equity concept is derived from what the sale of a branded product can achieve in the marketplace above and over the sale of a similar or same commodity or no-name product (Keller, 1993; Gartner, 2014). The brand equity, which stands for added value, may not be obvious in a day-to-day purchase. However, when it comes to selling franchise rights, distribution agreements and promotional rights the brand equity of a product comes to life in a full view.

Table 3.1. Evolution of Tourism Destination Brand Equity

Tourism Destination Brand Equity Development Stages	Emerging Research Areas	
Establishment of tourism destination brand equity as a research field.	Before 90	- <i>Image period</i> : Boulding's (1956); - <i>perceived quality</i> : Parasuraman et al. (1985, 1988)
	1990-99	- <i>Destinations as brands</i> : Richie & Richie (1998); - <i>Introduction of loyalty, awareness, and quality</i> : Milman & Pizam, 1995;

		Oppermann, 2000; Aaker, 1991, 1996; Keller, 1993;
	2000-09	- <i>Destination image is not the only dimension</i> : Cai (2002); - <i>Brand equity of tourism destinations</i> : Konecnik & Gartner (2007);
	After 2010	- <i>Destination brand equity</i> : Gartner & Ruzzier, (2011); Gartner (2014); Choi & Sirakaya, 2005; Stronza & Gordillo, 2008; Hung, Sirakaya-Turk & Ingram, 2011; Evans et al., 2015; Gartner, 2014; Martínez et al., 2019;

On the other hand, the tourists notice the value of the brand equity when they perceive that the time has come for the idea that encapsulates destination attributes, both tangible and intangible. Destination brands, and therefore, the value of destination brand equities is in many ways noticeably different from those of a product brand. First, destinations are living, dynamic places that change all the time. Second, destinations are multidimensional in nature and structure and tend to mean different things to different visitors (Konecnik & Gartner, 2007; Gartner, 2014). Next, destinations carry different levels of experience and perception. Another crucial difference is that there are no markets for destinations. Therefore, one cannot use the market value to measure their brand equities. Similarly, you cannot return a destination if it does not live to tourists' expectations. Although, under some circumstances, tourists can switch to another destination (Gartner, 2014).

Another interesting point related to measuring the destination brand equity is the difference between branded and non-branded products. The tourism destination market is specific and unique in a way that destinations are unique, therefore, it would be difficult to find unbranded destination and compare it to a branded one with similar or same characteristics.

Thus, destination awareness represents familiarity with the destination either by recognition, recall or top-of-mind awareness (Keller, 2013) while destination image is an overall impression of natural and cultural heritage richness, use of environment, providing superior satisfaction, and the overall performance of all airport-to-airport service providers (Lopesi, 2011). Similarly, loyalty is intention to repeat the experience, while resonance is an ultimate match between the destination and a visitor (Keller, 2013). As internet makes secondary data more accessible and less costly to obtain, there is a growing need for the methods to evaluate secondary data validity and reliability (Chigora, 2015; Simkins & Peterson, 2015). Also, Busse (2010) points that for hypotheses testing and confirmation, it is valid to use a single database; however, for confirmatory research, multiple databases with secondary data are acceptable.

Between 2001-2012, there are at least 64 relevant published papers on research in destination brand equity (Kladou et al., 2015). Before works of Konecnik & Gartner (2007), there was a lack of empirical research effort on destinations Boo, et al. 2009). Initial works on destination branding were focused on destination brand image and have overshadowed the interest in destination brand equity (Kladou et al., 2015; Anuwichanont & Mechinda, 2014).

At that time, there was very little research literature on destination brand equity (Kladou et al., 2015). That changed when interest in destination brand equity increased as researches started to pay attention to the four basic brand equity subjects (awareness, image, quality and image) on destination valuation and analysis (Iniesta-Bonillo et al., 2016; Konecnik & Gartner, 2007; Kladou & Kehagias, 2014; Zhang et al., 2016), as proposed by Aaker (1991, 1996). Literature review revealed the pressure for credibility and substance causing the researchers, marketers and scholars to adopt the term “Destination Brand Equity” borrowed from the traditional corporate and customer branding theory (Kladou et al., 2015).

Even though Aaker's (1991, 1996) brand equity model has five dimensions, awareness, association/image, perceived quality and brand assets, in the context of tourism destination brand equity, the research uses only four (Konecnik & Gartner, 2007; Kladou et al., 2015; Teodorović, Popesku, and Pavlović, 2019). Next, it is important to mention that brand asset is excluded from the destination brand equity analysis. Unlike consumer products, where images are based on real and measurable data because of the tangible nature of the products, tourism products are experiential in nature since they are produced and consumed at the same time. Therefore, product assets, which are important for consumer products have no meaning in the brand equity evaluations.

Also, there are many macro factors that can make a destination experience a probability of a certain expectation rather than an expected standard. Climate change influencing local weather, political situations such as one in Greece in 2015, currency exchange rate, terrorism, migrations, natural disasters, social events and so on can altered perception and an expected experience from a destination. Therefore, replication of a destination experience, time after time, is a challenge. The evolution of the destination brand equity concept is shown in Table 3.1., on page 64.

3.2.1. Destination Brand Awareness

A well-known destination will attract more visitors than those that are less know (Chigora, 2015). Well known products or services send message to customers that they are reputable and attractive (Gustafson & Chabot, 2007). Many researchers consider brand awareness as the capacity of a person to recognize a brand that he or she has seen before or recall a brand when a product category or cue is exposed (Liu, Liston-Heyes, & Ko, 2010). Also, brand awareness is considered as a major, first level, part of the brand equity (Gartner & Ruzzier, 2011). Similarly, Keller (2013) suggests that brand awareness is the first level of the brand equity pyramid paradigm

Aaker (1991) puts brand awareness ahead of other elements of brand equity. The concept of top of the mind awareness and added awareness resembles the earlier recognition and recall. Top of the mind assumes that a customer has a predefined notion about the product in terms of ranking it as a first choice in a purchasing decision. Also, it plays a role in a customer's effort

to form his or her buying behavior concept based on their top choice. Consequently, an added awareness suggests that the brand will be picked among many offered.

A destination needs to be known to be visited (Gartner & Konecnik Ruzzier, 2011). Global and economic performance of a destination increases if an effort is made to create and make a destination known (Im, et al., 2012). There is relationship between brand awareness and market outcome (Homburg, Klarmann, & Schmitt, 2010), as there is a relationship between destination effective brand awareness and receipts and arrivals. However, awareness is not sufficient to make destination brand strong (FutureBrand, 2015).

In the case of Zimbabwe country brand, high awareness doesn't automatically translate into the brand loyalty and, therefore, into the market outcome (Chigora, 2015). Gartner and Konecnik Ruzzier (2011) point out that awareness of tourism destinations is not always positive, but can also take a negative form, which, in turn, drives the brand equity of the destination down. In its research Ndlovu and Heath (2013) point out that culprits of the Zimbabwe's negative brand awareness come from the political and human development as well as from socio-economic issues. Also, a customer's association process kicks in only after he or she becomes aware of the destination (Pitta & Katsanis, 1995).

Consumer-based brand equity is defined and explained by brand awareness if the brand is a high-involvement product (Im, et al., 2012). Others suggest that awareness may not play a significant role with high-involvement products but with the low-involvement ones (Keller, 2013). Brand loyalty, choice and associations are affected by the brand awareness (Shahin, Kazemi, & Mahyari, 2012). Many researches use brand association as a standalone part (Yoo & Donthy, 2001). Reputable countries, with high positive images, play a vital role with potential visitors by projecting their image to the value of their tourism destinations (Yasin, Noor, & Mohamad, 2007). The fact that brand awareness can be associated to the country-of-origin is well known to researchers (Shahin et al., 2012). According to Keller (2013), the country-of-origin can help the recognition and recall processes of differentiating the destination based on the country. Brand awareness can take many dimensions such as recall, recognition, top-of-mind awareness, dominance, knowledge and opinion (Aaker, 1996). Others see brand awareness as a recall and recognition with different levels of breadth and depth (Keller, 2013). However, in many cases, awareness results in curiosity that causes trial or visitation in the destination context.

Alamro and Rowley (2011) suggest that awareness precedes brand preference and suggest that brand promise is an important aspect of the brand preference. The authors concluded that brand awareness is a result of either controllable or non-controllable communication. In the low involvement purchase brand awareness may be enough to make purchasing decision (Keller, 2013). However, in the high involvement buying scenarios the strong feelings about the product is needed. In a scenario of equal reputation consumer will make purchasing decision based on the brand awareness (Brewer & Zhao, 2011). Earlier studies confirm existence of the relationship between brand awareness and brand loyalty (Nguyen, Barrett, & Miller, 2011). Also, first time tourists give more value to the cognitive attributes than repeat tourists, and form majority of their opinions about the destination based on cognitive analysis which emphasizes the role of the destination awareness element (Yolal, Chi, & Pesämaa, 2017).

Melo & de Farias (2018) analyzed the impact of the hedonic sustainability stimulus used in the advertising message for a tourism destination. The authors found that sustainability

generates more interest about destination by tourists. Further, Malone, McCabe, & Smith (2014) state that motivators based on emotional experiences have significant impact on strengthening the current and intended ethical behavior of tourists. Budeanu (2005) emphasizes that tourists' needs to be educated with intention to increase their awareness of the social, cultural and environmental aspects of the impacts that they can have on the tourism destinations. The authors claim that the awareness is particularly important in the destinations where impacts of social, cultural and environmental activities are high.

Bhuiyan, Siwar, & Ismail (2015), Ritchie & Crouch (2010), Seraphin et al. (2018), and Simkins & Peterson (2015) also confirm that widespread use of resources for tourism activities destroys the ecosystem of destinations. Moreover, the authors found that preservation of natural habitat and the environmental awareness are necessary for sustainability of the ecotourism destinations. Mihanyar et al. (2015) argue that sustainable tourism awareness has a positive impact on the satisfaction of tourists and behavioral activities and has significant influence on the environmental behavior.

Based on the above the thesis proposes the following supporting hypotheses:

H3: Economic sustainability has a positive impact on the destination awareness.

H4: Social sustainability ¹¹ has a positive impact on the destination awareness.

H5: Environmental sustainability has a positive impact on the destination awareness.

⁶⁶ 3.2.2. Destination Brand Image

Brand associations or brand image is the most researched dimension of the brand equity. It stands for strong, favorable and unique associations linked to the brand in memory (Keller, 2013). Formally, brand associations can take form of images, product-profiles, conditions, awareness, brand elements etc. Strong, positive, favorable and unique associations are necessary condition for creating strong brands (Keller, 2013).

Similarly, a destination image is a generic concept manifested as a comprehensive impression based on the collection of beliefs and feelings about a specific destination (Zhang, Wu, Morrison, Tseng, & Chen, 2016).

A country destination has elements of the extrinsic or secondary association, which represent an important source of the country-of-origin knowledge for consumers so they can form either positive or negative feelings of a destination (Zhang et al., 2016). Empirical evidence proved this (Yasin et al., 2007; Shahin et al., 2012; Moradi & Zarei, 2012). Brand associations are meaning of the brand and can be viewed from the product, organization and personality perspective (Aaker, 1996). Online image is a new growing concept which is based on the belief of a destination from internet's search engines (Bloom, 2015).

A few studies on CBBE view destination image and (perceived) destination quality as one dimension because they both project characteristics of the tourism destination offerings (Ferns & Walls, 2012; Konecnik & Gartner, 2007). Keller (2009) includes both elements, destination image and perceived destination quality in the destination brand performance and destination imagery in his pyramid CBBE model. While some authors, Bianchi et al. (2014),

and Teodorović et al., (2019) consider destination quality as a single element, the others (Im, et al., 2012) view destination image as a single construct. Aaker (1991, 1996) empirically considers both destination image and quality as independent dimensions in its CBBE model, a view that is supported in the thesis.

Traditionally, studies on tourism destination brand image adopt the works of Echtner & Ritchie (1993) where they suggest the multidimensional nature of the tourism destination brand image construct. Besides the common and unique view of destinations, the study proposes attribute-based images. Furthermore, Echtner & Ritchie (1993) and Gallarza et al., (2002) defined a set of most common attributes used in tourism destination brand image literature. Landscape, residents' friendliness, scenery, cultural attractions, price started to appear in the research literature as a reflection of the destination resources. Consequently, attribute-based concept supports paradigm that tourism destination brand image manifests the attractiveness of the destination resources in the minds and hearts of the potential tourists (Bianchi et al., 2014; Horng et al., 2012; Konecnik & Gartner, 2007; Teodorovic et al., 2019).

Konecnik & Gartner (2007), explored the image of Slovenia from the perception of the German and Croatian tourists. Im et al. (2012) conceptualized destination attribute-based images of Korea and Malaysia while Ferns & Walls (2012) defined quality and image constructs for the US Midwest as a tourism destination. Next, Horng et al. (2002) examined the image of the culinary tourism in Taiwan while Kladou & Kehagias (2014) developed image attributes for the cultural tourism in Rome. Also, Teodorovic et al., (2019) explored image of Serbia from the domestic tourists' point of view.

The tourism research literature confirms that people behave differently at their residence than when they travel (Miao & Wei, 2013). While people are more inclined to engage in environmentally more friendly behavior when they are at home, they are far less inspired to do that when they are traveling. In fact, pro-sustainable behavior is not consistent even when in tourism destination (Miao & Wei, 2013). According to Line & Hanks (2016) tourists are more likely to support sustainable behavior in the nature-based tourism destinations than urban destinations. This behavior suggests that destination itself has an impact on the sustainable behavior.

Destination image is commonly conceptualized to coincide with both affective and cognitive elements (Baloglu & Mangalolu, 2001; Kim & Perdue, 2011). Cognitive destination image is a tourist's perception of tangible structures that constitute destination such as building, hotels, restaurants, parks, monuments or wildlife, waterfalls, flora and fauna, springs and etc. On the other hand, affective destination image is a lamentation of the tourists' perception of "his or her feelings about destination" expressed as exciting, relaxing, stressful, or other. Line, Hanks & Miao (2018) state that a person's image of a particular destination, besides many factors, can be mostly influenced by the type of destinations, urban or nature based. The authors concluded that the type of destination determines the pro-environmental behavior of tourists.

Hanks et al. (2016) state that features of various types of tourism destination differ greatly and differently respond to sustainability messages. For example, urban destinations are in general much more developed, offer more choices and are easily accessible than less developed rural destinations. The large number of choices such as hotels, restaurants, entertainment and shopping are causing tourist to be less responsive to sustainability messages in general and environmental messages (Ashworth & Page, 2011; Edwards, Griffin, & Hayllar, 2008).

However, nature-based destinations are closer to the scenery of the landscape and the wildlife and create stronger bond between tourists and the environment. In general, nature-based destinations are less developed and undisturbed and are more likely, than the urban once, to spark more sustainable behavior of tourists. Hanks et al. (2016) state that the natural environment, greenery, natural features and the wildlife are more likely to cause positive attitude towards cognitive notion of sustainable behavior.

Based on the presented facts the thesis proposes the following supporting hypotheses:

8
H6: Economic sustainability has a positive impact on the destination image.

H7: Social sustainability has a positive impact on the destination image.

H8: Environmental sustainability has a positive impact on the destination image.

3.2.3. Destination Brand Quality

Parasuraman, Zeithaml, & Berry (1985, 1988) empirically places destination quality into the research literature on tourism as the difference between tourists' actual expectations and performance. The difference influences the judgement and emotional feeling towards the delivery of the promised quality (Pike, et al., 2010). The thesis supports the Aaker's (1991) and Keller's (1993) formulation of the CBBE model where brand quality is defined as a key dimension which reflects the superiority and excellence. Ferns & Walls (2012, p29) see destination brand quality as a tourists' perception of a destination's ability to carry out or exceed their expectations. Moreover, other authors suggest that the destination brand quality is a reflection of the on-site experience (Chen & Tsai, 2007). Unpolluted environment and cultural experience are considered as usual aspects of the destination brand quality.

The perception of brand quality arises when there is an information asymmetry (Kirmani & Rao, 2000). Based on the information they have, potential tourists feel uncertainty about a destination that could be identical, close, different and significantly different from the actual. The "quality" or the gap between expected and actual experience with the destination is a perceived quality which many researchers, scientists and marketers agree to have impact on the destination brand equity (Aaker, 1996, Keller, 2013, Konecnik & Gartner, 2007). Perceived quality is a collection of many benefits, attributes, and image perspectives, that exist in the minds of tourists or consumers and can last throughout the life of the product (Keller, 2013). Research shows that perceived quality adds more value to buying activity influenced by brand equity (Low & Lamb Jr, 2000). Research literature confirms that the country-of-origin plays a role in a visitor's choice of the tourism destination (Pappu, Quester & Cooksey, 2007) as well as that perceived quality varies across different cultures (Jung & Shen, 2011).

Also, consumers want consistent quality at the low price, and subjectively assess product features to form feeling of the quality (Saleem, Rahman, & Umar, 2015). Herstein & Zvilling (2011) argue that among brand attributes the brand quality attributes should take high priority for marketers. Other studies suggest that brand credibility increases perceived quality which affects buying intention with a pleasure-seeking behavior as a moderating role (Baek & King, 2011). On the other hand, global brands usually meet customer's buying preferences by

19 focusing on quality and prestige (Akram, Merunka, & Akram, 2011). There is a positive relationship between perceived quality and brand loyalty (Nguyen et al., 2011). Also, Konecnik & Garnter (2007) and Teodorovic et al., (2019) confirmed that destination quality has direct impact on destination image and destination loyalty. Both studies show that destination awareness has direct significant impact on destination quality. Baker & Crompton (2000) conducted a study on behavioral intentions, satisfaction, and quality which confirmed hypothesis that perceived destination quality impacts tourists' behavior.

Based on the above the thesis proposes the following hypotheses:

11 H9: Economic sustainability has a positive impact on the destination quality.

H10: Social sustainability has a positive impact on the destination quality.

H11: Environmental sustainability has a positive impact on the destination quality.

3.2.4. Destination Brand Loyalty

Researchers view brand loyalty as a consumers' tendency to stick to a brand by showing behavior of repeat purchase and "primary choice" attitude that results in a consumer's repeat consumption of a brand (Yoo & Donthy, 2001). Javalgi & Moberg, (1997) recognize two dimensions of brand loyalty: behavioral and attitudinal. Consumers tend to stick to those brands that exhibit high brand equity (Moradi & Zarei, 2012). Countries with memorable and favorable images exhibit high brand preference that leads to a strong destination brand loyalty (Kim, 1995). Also, one body of research shows that the country-of-origin and brand loyalty are significantly related (Shahin et al., 2012) while the others found the relationship insignificant (Moradi & Zarei, 2012).

Loyal customers are ready to spend more on a brand after recognizing it. The attachment to the brand is a result of the belief that a customer is better off with the brand (Belaid & Behi, 2011). Many demographic variables are responsible for a customer loyalty behavior to a brand (Saleem et al., 2015). For example, men are less loyal than women (Jansen, 2008). Also, research by Hur, Ahn, & Kim (2011) noted that a brand community tends to share their experience with the brand which positively affects buying intentions resulting in increased brand loyalty.

Brand image plays role as a mediator and affects brand loyalty (Saleem et al., 2015), and is important because it conveys some meaning of the brand that exists in the consumers' (tourists') minds (Keller, 2013). Similar argument about brand image shows a positive relationship with brand loyalty (Bianchi & Pike, 2011). The argument that supports mediating role of brand image between perceived quality and brand loyalty is that perceived quality itself is not enough to spur the brand loyalty among customers. Some other variable is needed and that is brand image (Saleem et al., 2015). Similarly, a company's message about the perceived quality matches better customers' expectations when a strong brand image is associated (Hsieh & Li, 2008).

Konecnik & Gartner (2007) suggest that cognitive and affection elements form destination image influence destination brand loyalty. The cognitive part is responsible for

knowledge and beliefs about attributes of the product or destination while affection element explains how tourists feel about a destination (Hosany, Ekinici, & Uysal, 2006). Furthermore, Konecnik & Gartner (2007) and Kim et al. (2017) suggest that destination quality and destination awareness have a mediating role between the destination brand image and destination brand loyalty.

In tourism literature, Chi & Qu (2008), Kim & Brown (2012), and Yuksel, Yuksel, & Bilim (2010) confirmed that tourism satisfaction directly affects tourism destination loyalty. In case of island destinations, sand, sea and sun are not the only elements that influence the tourists' loyalty. The research found that social elements such as host population, guests and safety are important for destination loyalty (Sangpikul, 2017).

Verma & Rajendran (2017) found that historical nostalgia is important determinant of destination loyalty as well as perceived value and satisfaction. Interesting results on destination loyalty were obtained by Iordanova (2017), which show that strong destination image positively affects destination loyalty. In particular, the study indicates that destination loyalty is more influenced by the destination affective image than destination cognitive image.

Anderson, Fornell, & Lehman, (1994) and Zeithaml, (2000) confirm in their study that customer loyalty and quality increase profits. In the tourism destination context, this means that both quality and loyalty have positive impact on destination economic sustainability. Also, Ryglová, Ryglová, Šácha, & Maráková (2018) examined the ways of developing tourists' loyalty in rural destinations under the development umbrella of destination sustainability. They found that satisfaction has direct influence on the tourists' loyalty. The same research points to well-being, image and services as dimensions of the most positive influence. Also, the sustainable development should be a priority. Furthermore, the authors concluded that from the destination marketing point of view, sustainable development "pull" strategy should be based on tourists' loyalty as the key element in the sustainable tourists' behavior. The pull strategy is particularly effective when there is a high involvement and high level of destination brand loyalty in the specific destination marketing segment. The strategy is appropriate when tourists' perceived difference between destinations is pronounced and when tourists are capable of selecting destinations prior to visiting them. Pull strategy involves advertising, promotions, special offers and communication mix to create demand among the potential tourists. The advertising message should include sustainability theme, connect closely to destination brand positioning and facilitate in creating points-of-parity and points of difference strategy (Kotler & Keller, 2012).

Based on the above the thesis proposes the following supporting hypotheses:

H12: Economic sustainability ¹¹ has a positive impact on the destination loyalty.

H13: Social sustainability has a positive impact on the destination loyalty.

H14: Environmental sustainability has a positive impact on the destination loyalty.

4. CONCEPTUAL FRAMEWORK

The chapter formally introduces the theoretical framework for evaluating the impact that sustainability has on destination brand equity. The proposed conceptual model in this thesis consists of the elements of sustainability and the elements of destination brand equity.

First, dimensions of the proposed model are explained. Following the introduction, the theoretical background of the causal relationships between the elements of the tourism destination brand equity, and destination sustainability are explained. Furthermore, theoretical concepts used as a background for operationalization of the elements of sustainability such as original form of integration, social exchange theory, service marketing theory, integrated theoretical framework and goal framing theory are outlined.

Second, the chapter presents and describes the proposed model, its constructs and structure. The proposed relationships of each individual dimension of the proposed model are outlined within the corresponding theoretical framework. A set of hypotheses, drawn earlier in the study, are shown to highlight the causality structure of the model. Further, the thesis analyzes each individual dimension of the proposed model and highlights the scale concept across the individual elements.

Finally, the theoretical framework behind the country as a destination is presented. The concept of evolution and meaning of the country destination brand equity research is highlighted. At last, the chapter proposes the measurement strategies of the destination brand equity across different destinations.

4.1. Theoretical Foundation

The thesis utilizes several different theoretical concepts in order to evaluate the causal relationship between the elements of the tourism destination brand equity and destination sustainability such as original form of integration, social exchange theory, service marketing theory, integrated theoretical framework and goal framing theory as listed in the Table 4.1., page 74.

The original definition of the concept of sustainable development comes from the Brundtland Commission's report from 1987, "Our Common Future", which defines sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" ("World Commission on Environment and Development", WCED, 1987). The concept is defined by three constituting elements: economic sustainability, social sustainability and environmental sustainability.

On the other hand, in the theoretical domain, Aaker (1991, 1996) outlined the concept of customer-based brand equity as a tool for measuring, tracking and evaluating the value of brands which is used as the bases of the proposed model in this thesis. Based on Aaker's and other tourism research literature, the adopted concept of the destination brand equity usually consists of the four elements: destination awareness, destination image, destination quality and destination loyalty. Despite the fact, that Aaker never proposed how to operationalize the elements, the model became the most widely used in the tourism research literature.

Recently, Mihalic (2016) proposed a Triple-A-Model that consist of the elements: awareness, sustainability (agenda) and responsibility (action). The model supports strong

relationship between awareness and sustainability and addresses the gap between appealing concept of sustainable development and its slow penetration in tourism development. The notion of responsible tourism connects responsible behavior and action. It brings a new understanding of tourism and posts the question of ethics. Next, the author states that responsible tourism is taking place when a novel understanding of tourism is analyzed (Bramwell, Lane, McCabe, Mosedale, & Scarles, 2008; Mihalic, 2016).

Another theoretical concept, the original form of integration, as shown in Figure 2.6. on page 46, captures the impact of economic, social and environmental elements on destination sustainability (Lee & Kirkpatrick, 1997). The concept requires that sum of all individual outputs must be zero or greater than zero to confirm sustainable development of a destination.

Furthermore, the social exchange theory promotes the concept of power, trust, benefits and costs as the social elements of tourism destination sustainability (Oberg & Svensson, 2010). Moreover, contemporary service marketing theory introduces the key concepts such as resources, value co-creation, value-in-use, relationships and experiences to define the custom-based brand equity paradigm in tourism (Chekalina et al., 2016).

Next, to define economic element of the destination brand equity the more universal approach to the economic impact on the destination brand equity is leading to the concept of expenditure, arrivals, length of stay and seasonality (Dwyer, et al., 2014). Destination arrivals and receipts are the most common indicators of a tourism destination economic activity in the traditional demand side economy. Also, Butler (2001) suggests that seasonality has a significant economic effect on a tourism destination.

Also, the integrated theoretical framework defines the environmental awareness as the antecedent of the pro-environmental behavior. The concept views knowledge, motivation and skill as key factors for affecting the sustainable environmental behavior (Harju-Autti & Kokkinen, 2014). The thesis transparently identifies impacts and changes that (1) tourists exhibit on destination resources, (2) destination resources and service providers have on tourists, and (3) form experiences, expectations and various tangible and intangible outcomes, obtained by tourists, as a result of the resource alteration process.

Consequently, the main concepts of the proposed model are to highlight the causal relationships between the elements of destination sustainability and the elements of destination brand equity. Those relationships are based on (1) interaction and consumption of the destination resources by tourists, (2) the impact of destination resources on tourists, and (3) tourists' influence on destinations resources (Chekalina et al., 2016).

Table 4.1 Theoretical Foundation

Concept	Domain	Description	Variables	Source
Sustainability Concept	Sustainability	Economic, Social, Environmental	Arrival, Expenditure, Wellbeing, Safety, Hospitality, Climate,	Brundtland Commission, WCED (1987)

			Pollution, Noise, Biodiversity	
Customer-Based Brand Equity	Brand Equity	Awareness, Quality, Image, Loyalty	Recognition, Recall, Top-of-Mind Awareness, Associations, Superiority, Revisit, World-of-Mouth	Aaker (1991, 1996); Keller (1996, 2013)
Triple-A-Model	Responsible Tourism	Sustainable-responsible tourism	Awareness, Agenda, Action	Mihalic (2016)
Original Weak Form of Integration	Sustainability	Seven equations for measuring impact on sustainable destination brand equity	Economic, Social, Environmental, Awareness, Image, Quality, Loyalty	Lee & Kirkpatrick, 1997; Gartner, 2014
Social Exchange Theory	Social	Exchange Process	Power, Trust, Benefits, Cost	Ward & Berno, 2011; Nunkoo & Gursoy, 2012
Service Marketing Theory	Economic, Consumer	Aspirational, Co-creation, Eco-centric, Transformational, Shared Value-in-use Optimization	Expenditure, Length of Stay, Seasonality	Porter et al., 2011; Scharmer et al., 2013; Dwyer et al., 2017; Porter et al., 2011; Dwyer et al., 2014; Barros et al., 2010; Weaver et al., 2000
Integrated Theoretical Framework	Environmental	Environmental Awareness, Pro-environmental Behavior	Motivation, Skill, Knowledge	Steg, et al., 2014
Goal Framing Theory	Environmental	Pro-environmental Behavior	Normative, Hedonic, Gain Goals	Lindenberg and Steg, (2007)

The proposed model in the thesis is based on the following theories: original integrated format as proposed by Lee & Kirkpatrick, (1997), social exchange theory, goal framing theory, integrated theoretical framework, service marketing theory and customer-based brand equity theory.

The proposed model supports seven regression equations: economic, social and environmental, awareness, image, quality and loyalty, as shown in Figure 2.7, on page 47. Operationalizing the equations require selecting the scale that is important for the evaluation of a destination.

This thesis supports conceptualization of the social equation based on the social exchange theory and includes power, trust, cost and benefits as variables (Nunkoo & Ramkissoon, 2012). Power is considered as the ability of the local community to achieve the best possible outcomes for the well-being of its residents as well as visitors. On the other hand, trust is a promise of a destination as a brand, co-created by a destination and visitors and considered by visitors. Also, trust is a change-of-state because of interactions between residents and the visitors. The authors point that the other two variables, cost and benefit, are the bases for deciding whether or not residents should engage in relationships that maximize benefits and minimize costs. In the tourism setting, cost is considered as the sacrifice that host population has to foregone in order to consider benefits. On the other hand, the benefits are rewards in the exchange process for accepting the cost (Nunkoo & Gursoy, 2012). In other words, the pollution, noise, crowding, crime, traffic, etc. are sacrifices for the benefit of economic wealth, prosperity, knowledge, cross-cultural exchange, and increase of the overall well-being of the host population.

According to Fredline & Faulkner (2000) the SET suggests that residents support tourism development only if the benefits outweigh costs. The same authors indicate that SET, in the area of residents' attitude towards tourism, is the most influential theory.

This relationship is in line with the works of Grönroos (2000,2009) and, Lindberg-Repo and Grönroos (2004) who suggested that media, competitors and customers contribute to the articulation of the promise of the destination brand

Tourism brings both prosperity and destruction to the local community of any destination. Therefore, the cost-benefit scenarios, as perceived by the local population, must be included into any destination development equation (Davis et al., 1988; Hung et al., 2011). For the local community to endorse tourism it must have trust in the authorities that they have the power to implement the benefits and minimize the cost (Nunkoo, 2012).

Next, the economic equation is conceptualized based on the integrated approach that encompasses aspiration, co-creation, eco-centric behavior, shared value and optimization destinations (Szmigin et al., 2009; Lean, 2009; Reisinger, 2013; Pollock, 2015; Porter & Kramer, 2011; Scharmer & Kaufer, 2013; Dwyer et al., 2017; ETC, 2017). The aspirational visitor is looking at the whole value of consumption rather than just a single aspect (Szmigin, et al., 2009). Furthermore, co-creation is the transformation process of visitors' and residents' values because of their interaction. The new economic logic offers preference to the shared value and optimization over traditional maximization practices. The new logic gives preference to quality and creativity over quantitative goals. There is a popular view among many scholars and academics that the focus should be on expenditure, seasonality and the length of stay rather than on arrivals (Dwyer, et al., 2014).

Further, conceptualization of the environmental equation focuses on the integrated theoretical framework which recognizes environmental awareness as an important step towards the pro-environmental behavior. The environmental awareness, which as a higher-order entity, is a mix of the elements of motivation, skill and knowledge (Partanen-Hertel et al., 1999).

More tourism creates more collision with the environment by reducing the potential for tourism expansion. However, Crouch (2010), Gartner (2014) and Qiu Zhang et al. (2016) suggest that the long-term value of a tourism destination depends on the sustainable use of resources. To better understand tourism destination, it is paramount to be aware, have judgment of quality and long-lasting impressions, and develop loyalty of the environment, as well as the economic and social forces that are responsible for any growth and development (Gartner, 2014; Buckley, 2012).

Conceptualization of the awareness equation is based on the dimensions such as recall, recognition, top-of-mind awareness, dominance, knowledge and opinion (Aaker, 1996). On the other hand, image equation is seen as the collection of beliefs, feelings and remembrance that people have of a specific destination (Zhang et al., 2016). Further, quality equation should include elements that reflect difference in expectations and the overall judgements of superiority. Finally, conceptualization of the loyalty equation, must include attitudinal and behavioral constructs. Intention to revisit, recommend, pay premium and anything that suggests attachment to the destination are considered as measurement options.

As mentioned earlier, each construct of the overall destination brand equity consists of underlying drivers as suggested by 'social exchange theory', 'integrated theoretical framework' and 'original form of integration' (Ward & Berno, 2011; Nunkoo & Gursoy, 2012; Harju-Autti & Kokkinen, 2014).

For a destination to remain attractive it must keep, preserve or even enhance its' carrying capacity (Crouch, 2010). Exceeding destination capacity with the consumption of resources deteriorates the long-term health of a destination. Eventually, the image capital of a destination deteriorates with the consequence of lowering the value of destination brand equity.

In that regard, we must consider brand equity of a tourism destination in the same way that we look at the development of sustainability in the long run. Consequently, we need to consider destination brand equity dimensions as a part of the same development process that also includes constructs of environmental, economic and social elements.

For the last forty years, the environmental and social issues have slowly started to gain interest among academics, scholars, researchers and the public. The term sustainability, as a concept and direction for development, is a recent subject. The focus was on the pragmatic side of the sustainability concept, its role, goals, areas of implementation, management and the overall applicability. Besides the fact that there have been many studies on tourism destinations, there were few concerning sustainability aspects (Nunkoo & Ramkissoon, 2011; Nunkoo & Gursoy, 2012; Andereck et al., 2011; Ward & Berno, 2011; Latkova & Vogt, 2012).

Dwyer et al., (2014) suggest expenditure, length of stay and arrival as proxy variables for the economic brand equity construct. The social exchange theory proposes power, trust, cost and benefit as main proxy candidates of the social brand equity, while the integrated theoretical framework regards knowledge, motivation and skill as the major proxy variables for the environmental destination brand equity. According to the reviewed theories the structure of the proposed model is shown in Figure 4.1, p. 78.

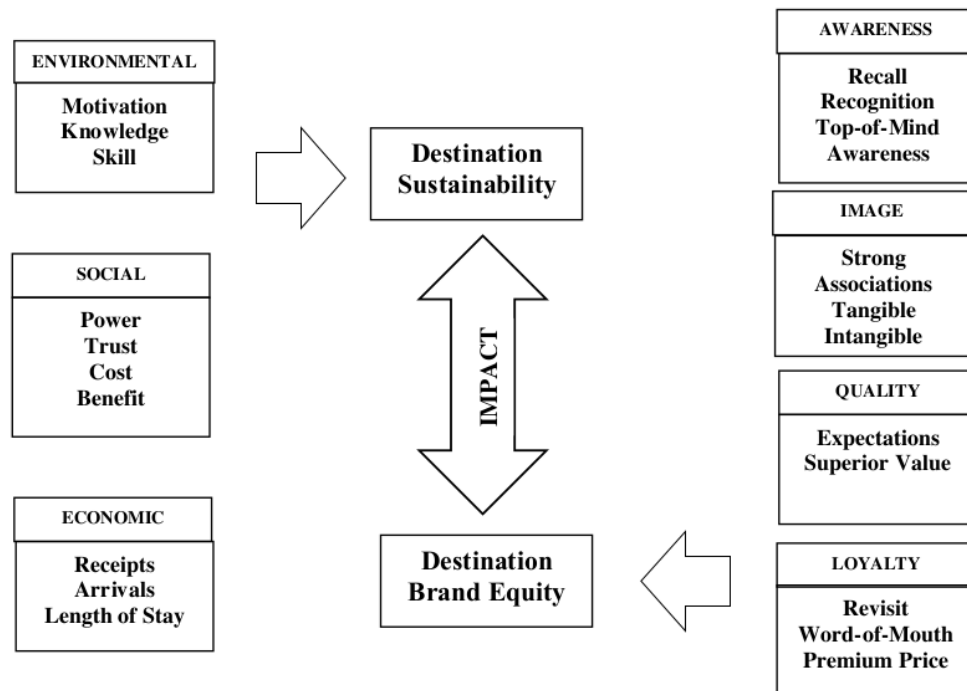


Figure 4.1 Proposed Model: Conceptual Framework

In this section, the thesis formally introduces the multidimensional theoretical model, which depicts the full interrelation between the elements of sustainability and the elements of destination brand equity. Going forward with presenting the formal framework for the sustainable tourism destination brand equity model, that will serve for analyzing the proposed hypothesis, this thesis combines the destination brand equity model, based on the four elements (awareness, image, quality and loyalty) as proposed by Aaker (1991, 1996) with the original form of integration model for measuring the destination sustainable development and brand equity (Lee & Kirkpatrick, 1997).

The proposed theoretical framework is intended for analysis of the impact that sustainable elements have on the components of the destination brand equity and individual causal relationships between the elements, see Figure 4.1. The proposed theoretical framework is supported by its operational format with equations presented earlier in Figure 2.7, on page 47. Finally, based on the above, the thesis proposes the hypothesized models shown in Figure 4.2 on page 80.

The first element of the model, destination brand awareness, which represents the isolated element of the hierarchy of the proposed model, is a prerequisite of placing a destination into the awareness and decision set by prospective tourists. It reflects the strength of destination presence in the minds of the perspective tourists. (; Gartner, 2009; Pike et al., 2010; Gartner & Konecnik Ruzzier, 2011;). Aaker (1996) suggested that awareness in the brand context appears

in six distinctive manifestations: recognition, recall, top-of-mind awareness, dominance, knowledge, and opinion.

Recognition is associated with the ability of the potential tourists to recognize name, main features, geographical location and some characteristic of a destination when the name of a destination comes up. Also, recognition is the lowest-ranked category of destination brand awareness (Im et al., 2014). Next, recall is considered a capacity to, without assistance, come up with the name of a destination associated with the specific destination category. The tourism destination categories can be any of the following: cultural, religious, adventure, ski, sun, sand & swim, culinary, adrenalin, etc. tourism destinations.

On the other hand, top-of-mind destination awareness is related to the destination name that comes up first in the recall process (Gartner, 2009; Hornig et al., 2012). When asked to think about tourism destinations, a result that comes up all the time is called a destination brand dominance (Garcia et al., 2012).

Similarly, knowledge about destination is what prospective tourists know about a destination brand, its distinctive features and attributes, revoke of advertising and related pieces of information and facts that are differentiating one destination from the other (Konecnik & Gartner, 2007; Pike et al., 2010). Opinion about a destination is the top level of the destination awareness structure. It happens when prospective tourists have highly favorable, unique and individual opinion of a destination (Konecnik & Gartner, 2007; Boo et al., 2009).

Therefore, word-of-mouth by family and friends, social and mass media, traditional press releases, tourism industry reports, and various internet applications focusing on tourism, are important sources of data about tourism destinations. Positive or negative information about a tourism destination points out if the destination brand development is justified or if there is an unacceptable risk for the investment in the development. Also, word-of-mouth heralds if a tourism destination is deteriorating or growing in popularity. Therefore, information about tourism destination can have either positive or negative impact on a destination's brand awareness and its' reputation (Gartner, 2009). Most importantly, the growing use of internet causes the impact on the tourists' decision-making makes it hard to control communication messages (Grönroos, 2000).

Next, destination brand image is defined as a set of strong associations about tourism destinations' tangible and intangible resources, memorable tourism experiences enhanced by tourism destination products and services, as well as various specific destination experiences and social interactions, that exist in the minds of tourists. Perceptions and experiences of destination resources are unique for every tourist while selection of resources is unique for every destination (Palmer, 2010; Zabkar, Brencic, & Dmtrovic, 2010. Moeller, 2010). On the other hand, marketing literature recognizes human, tangible and intangible resources as a source for tourism consumption (Bianchi et al., 2014;, 2010; Echtner & Ritchie, 1993; Im et al., 2012;).

Destination brand loyalty is the final element of the Aaker's (1991, 1996) destination brand equity model. It is the ultimate objective of the development of the destination brand associations. Based on the previous destination brand loyalty literature (i.e., Pike et al., 2010;; Kladou & Kehagias, 2014), the thesis supports the previous definitions that the destination brand loyalty represents the intensity of attachment which a perspective tourist has to a destination brand. The literature supports attitudinal and behavioral aspects of loyalty, respectively.

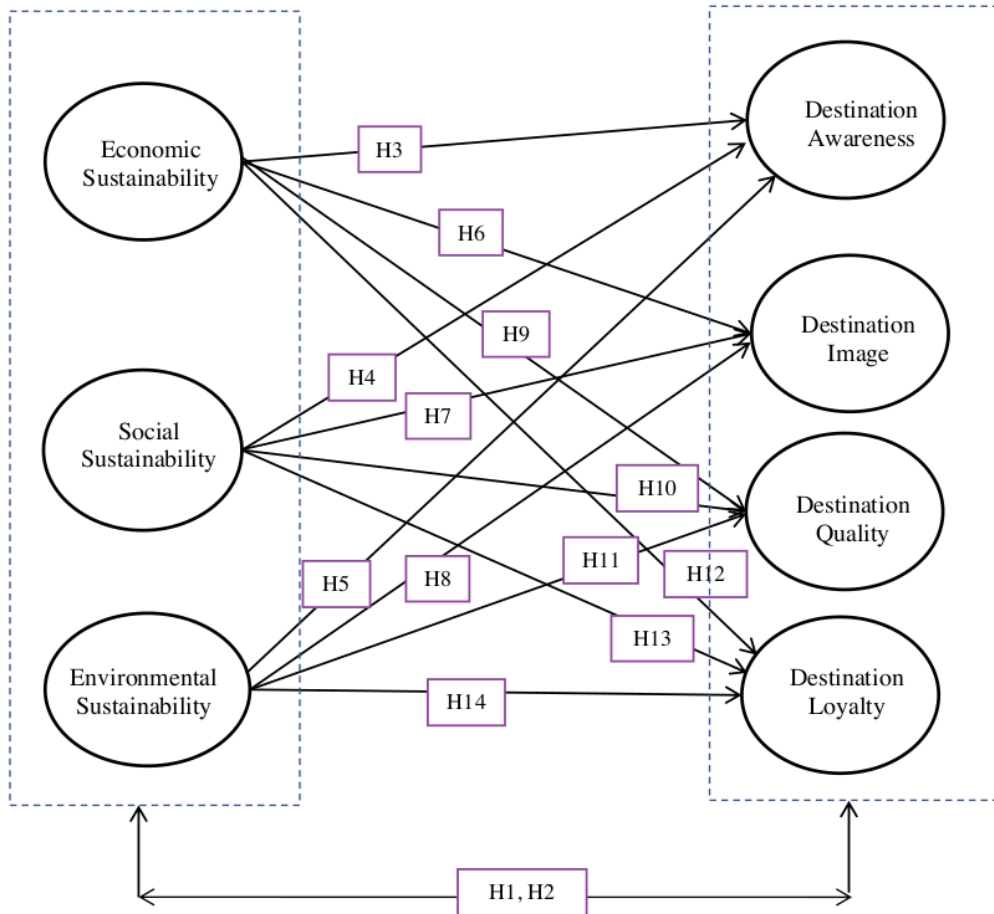


Figure 4.2. Proposed Model: Hypothesized Framework

Behavioral loyalty is manifested as an intend to revisit and positive word of mouth (Konecnik & Gartner, 2007). On the other hand, attitudinal brand loyalty is about selection of choices and actions that a tourist intends to make based on its attitude towards the destination resources, perceived attributes, and benefits that can be obtained by visiting a destination (Gartner, 2009). Attitudinal loyalty shows a strong desire to revisit the destination and spread the positive message on the destination to others. Also, when comparing among different destination choices, a tourist shows the preference to a destination and willingness to pay the higher price (Bianchi et al., Chen & Myagmarsuren.; Horng et al., 2012; Pike et al., 2010). The thesis is focused on evaluating attitudinal loyalty as the part of the proposed paradigm.

Finally, the proposed model supports multi-faceted nature of the tourism destination brand equity. Next, the thesis supports the argument that the universality of the model is achieved by incorporating major elements of sustainability such as social, environmental and economic. The point is made that each of these elements has an individual contribution to the overall value of the destination brand equity. With no market for destinations, the value of the destination is tied to its long-term perspective based on the expectations that economic reasons will still be there, natural environment will not deteriorate, and the well-being of the visitors and residents will be preserved. Destinations have long-term perspective and gain their value only if their prosperity will continue in the future.

4.3. Country as a Destination

The reality of globalization is making places competing in the global marketplace for products, services, ideas, talent, tourists, events, investments, influence, etc. For countries, reputation and brands are every bit as important for their prosperity and success in the contemporary world as are the brands of products and services for corporations (Anholt, 2010). Most importantly, a country brand serves as an umbrella brand for products and services originated in that country. Recent proliferation and availability of the global datasets showing rankings and evaluating countries based on various research, public, political and marketing aspects make countries a suitable target for research communities including those with interest in sustainable tourism and tourism destination branding. Freire (2016) and (Anholt, 2014) state that stakeholders in charge of their countries, regions and cities have interest in tourism and are investing in promotion of their places. In this thesis, the preference for countries over regions, cities and other tourism destinations is given to strengthen the case of universality of the proposed model. In the destination brand architecture country brand serves as an umbrella brand that influences all other destination brands within that country such as regions, cities and other local places. All destinations within a country inherit and benefit from the value and perception of its country's destination brand equity. Therefore, deductive conclusion is that the country destination brand equity is at the top of the value inheritance pyramid. Universality is achieved by obtaining the common destination brand equity of all countries.

Ashworth & Kavaratzis (2010), Cevero (2016) and Fetscherin (2010) argue that there is an interest by scholars in country branding which is further supported by a number of authors (Szondi, 2007; Kotler & Keller, 2012;; Gertner, 2011; Warnaby & Medway, 2013).

The global economy considers country branding as crucial element in competition and exports (Mariutti & Tench, 2015). Brands project their image into the market by either communicating brands' features to the intended audience or by broader marketing activities designed to add value to the brand recipients as well as by awareness (Kotler & Keller, 2012, Kapferer, 2004; Shimp, 2007). Consequently, country brands gain their global place by implementing their branding strategy (Mariutti & Tench, 2015). Inevitably, countries brand and are a significant source of the national pride (Mariutti & Tench, 2015). People tend to identify themselves with the image of what their country projects (Cevero, 2016).

In this thesis the "country brand" is chosen as the place for research and interchangeably uses "country branding and nation branding", regarding "country" as a standard term, (Mariutti

& Tench, 2015; Fetscherin, 2010; Gudjonsson, 2005; Nation Brands Index, 2016; Country Brand Index, 2019).

National branding is considered in the context of economic, diplomatic and political scenarios. International relations as a part of diplomacy is considered as the main reason why the governments are interested in the nation branding. (Aronczyk, 2013;; Anholt, 2007; Jansen, 2008; Jaffe & Nebenzahl, 2001).

This dissertation considers country brand¹⁴ and place branding as one which is supported by significant number of researchers (Ruzzier & De Chernatony, 2013; Gertner, 2011; Go & Govers, 2011; Sevin, 2011; Ashworth & Kavaratzis, 2010; Moilanen & Rainisto, 2009; Dinnie, 2009; Kavaratzis, 2010).

Branding of a country is a sophisticated subject in¹⁴ relation to many different areas including management and research (Chan & Marafa, 2013; Ruzzier & De Chernatony, 2013; Gertner, 2011; Go & Govers, 2011; Ashworth & Kavaratzis, 2010; Dinnie, 2009; Kavaratzis, 2005; Rainisto, 2003). Therefore, from the strategic point of view, county brand strategies can utilize marketing activities. Thus, many research¹⁴ consider country brand closely associated with marketing strategies and place branding (Dinnie, 2013; Warnaby & Medway, 2013; Zakarevičius & Lonikaitė, 2013; Jansen, 2008; Kavaratzis, 2005). Also, country branding is used to support various marketing and communication planning activities (Dinnie, 2005; Kotler & Keller, 2012; Gertner, 2011).

Schröter and Schwekendiek (2015) consider nation brand as a blend of differential components. Further, the authors state that nation image can be used as a tool for implementing different economic, social, security and power initiatives.

Country branding is not a new subject, b¹⁴ut it has produced a a lot of commotion in the academic, research and corporate communities (Kotler & Keller, 2012; Dinnie, 2009; Ashworth & Kavaratzis, 2010; Gertner, 2011; Go & Govers, 2011; Warnaby & Medway, 2013).

Branding a country requires a different strategy and approach from one used to brand product or services. Country brand is a sophisticated¹⁴ structure of multi-functional and cross-related elements that belongs to the public dom¹⁴ (Dinnie, 2009; Moilanen & Rainisto, 2009; Kavaratzis, 2010; Warnaby & Medway, 2013; Ashworth & Kavaratzis, 2010; Go and Gover, 2011; Gertner, 2011; Buhmann & Ingenhoff, 2013; Warnaby & Medway, 2013; Fetscherin 2010, p.467)

Anholt (2007), Moilanen & Rainisto (2009) and Szondi (2007) state that development, promotions, performance and management are vital to the country brands. Similarly, Mariutti & Tench (2015) argues that governments strive to make brand sophisticated and spend significant resources on the plethora of public specialists, consultants, and practitioners

There is a desire to pre⁵erve global resources (Kerk & Manuel, 2014; Ritchie & Crouch, 2003), Today, this trend is both challenge and an opportunity for enterprises to make a difference in the marketplace (Gerlach & Witt, 2012; SSF, 2014; Andersen, Ditlevsen, Nielsen, Pollach & Rittenhofer, 2013; Castellani & Sala, 2010). Therefore, this thesis considers country brands suitable for the analysis of the impact of tourism destination sustainable development on the destination brand equity.

4.4. Country Destination Brand Equity

National identity, pride, self-awareness and the role we play in the global world is all reflected in the country brand. If incorporates visitors, stakeholders, different interests, residents and public and private organizations (Mariutti & Tench, 2015; Buhmann & Ingenhoff, 2013; Dinnie, 2009; Jansen, 2008).

Today, country destination brand equity is a valuable research topic which seems to be significantly associated with the destination attractiveness. (Chiu & Ho, 2015). Destination attractiveness reflects positive experience with a destination or favorable opinion about it even when a country is not visited. According to Reitsamera, Brunner-Sperdinb, & Stokburger-Sauer (2006), destination attractiveness refers to a demand-side aspect influenced by the scenery, local community, accessibility and, amenities and infrastructure which are considered key factors in inspiring people to visit and stay a period of time. Consequently, attractiveness causes a significant influence on the destination selection process, tourists' behavior and the formation process of attachment (Henkel, Henkel, Agrusa, & Tanner, 2006). In regard to destination attractiveness the research literature has develop two different approaches. The first approach recognized importance of the tangible features and characteristics of a destination as an important factor in forming cognitive and affective perceptions about destination. The second approach is related to the tourists' image perception of a destination (Formica & Uysal, 2006). According to Reitsamera et al., (2006), the two approaches need to be integrated for the memorable experience and favorable image formation about a destination.

Trust and positive relationship, attractiveness, competitiveness, cost-to-value ratio are key elements for creating memorable experiences and satisfaction in the minds of the consumers (Ritchie & Crouch, 2010; Mihailovich, 2006; Buhmann & Ingenhoff, 2013; Go & Govers, 2011).

Moilanen & Rainisto (2009) and Kavaratzis (2005) argue that marketing plays a major role in the global positioning of the country's brand. On the other hand, Marruti & Tench (2015) state that widely accepted country brand paradigm is still work in progress. Because, countries as tourism destinations represent a significant source for the analysis they are used in the thesis for global evaluation of the presented model.

4.5. Measuring Country Destination Brand Equity

Concept that countries are destinations and have brand value expressed as destination brand equity is quite similar to the concept of product brand equity (Kladou et al., 2015). According to Mariutti & Tench, (2015), the concept produced interest in the research community to develop several paradigms for the global placement and ranking of the country brands. Criteria for analysis differ and vary from the perceived image to social, economic, cultural and technological dimension inter alia. Fetscherin (2010) and Dupeyras & MacCallum (2013) consider perception and attitudes to platy important role and the part of the country brand equity measurement.

According to Pike & Bianchi (2016) tourism literature recognized measurement of the destination brand performance as a field in 2007. The previous concept of measuring destination brand performance "net present value", which proved inadequate for measuring values of the destination brand equity, was replaced by the CBBE approach which started to

gain significant support by the service-based marketing research. The authors measured the impact of the emerging long-haul market (Chile) and short-haul traditional market (New Zealand) on the destination Australia using CBBE model. Their research shows stronger positive impact of brand awareness (salience), brand image and brand value on brand loyalty for short-haul market (New Zealand).

On the regulatory side, The Organization for Economic Cooperation and Development OECD (2016) suggests that tourism environment is changing over time while Dupeyras & MacCallum (2013) proposes indicators that include satisfaction, motivation, different behaviors, awareness and sustainability for tracking the changes. However, the overall conclusion is that tools for monitoring and tracking are not widespread among the countries.

Country Brand Index (FutureBrand, 2018) and Travel & Tourism Competitiveness Index (Crotti & Misrahi 2017) proved to be preferred choices for the number of countries for tracking, evaluation and monitoring competitiveness in tourism markets worldwide. Still, according to the Dupeyras & MacCallum (2013) the choice of indicators can be quite different from country to country.

There is a significant amount of literature contributing to validation of country destination brand equity taking into account business or research perspective (Konecnik & Gartner, 2007; San Martín, Herrero, & García de los Salmones, 2018; Pike, Bianchi, Kerr, & Patti, 2010; Teodorovic et al., 2019).

The research aspects consider integrated paradigms and potential variables of scientific importance (Kotler & Keller, 2012). According to Buhmann & Ingenhoff (2013) and Mariutti & Tench (2015) the business aspect is predominantly concerned with the public opinion, image, country brand, expenditure and performance.

5. METHODOLOGY

The thesis supports notion that conducting research in the social, behavioral and marketing studies require large and intricate datasets requiring sophisticated statistical methods for evaluation and illumination of the data (Bartholomew et al., 2008).

To increase robustness of the proposed model, this thesis uses two sets of data, global data and the data of a case of Serbia. By using multivariate statistical analysis on both sets of data the thesis intends to confirm the strong areas of the model as well as the moderate and the weak ones. The strong areas of the model will be those with the almost identical statistically significant outcome in both sets of data. The moderate areas will show partial similarity while weak areas will be in the domains where outcomes are clearly different or nonexistent.

The study is empirical in form and exploratory in nature and has adopted quantitative methods as the main approach to research which is primarily governed by the principles and techniques of the multivariate statistics.

The multivariate technique represents a statistical analysis of multiple variables in a single relationship or set of relationships. Multivariate analysis is supported by the multivariate measurement which utilizes two or more indicators for composite measures. Multivariate analysis is always followed by reliability and validity measure. Reliability represents extent to which a variable or group of variables are consistent in what is intended to measure. On the other hand, validity is an extent to which measure or set of measures correctly represents the subject of a study. In other words, validity is concerned with how well the concept is defined by measured data, while reliability is associated with the consistency of measures (Hari et al., 2010).

The most important concept of the multivariate analysis is the “variate” which stands for a liner combination of variables with empirically determined weights. The weights are determined by multivariate technique while the variables are specified by a researcher. A variate takes mathematical form such as:

$$\text{Variate value} = w_1X_1 + w_2X_2 + \dots + w_nX_n$$

where “ w_n ” is the weight calculated by the multivariate technique and “ X_n ” is the observed variable. The result is a single value that best describes an entire set of variables (Hair et al., 2010). Also, the multivariate analysis is used under the assumption that data is normally distributed. Besides the fact, that it is important to understand how data distribution departs from normality, it is important to consider the impacts of the sample size. Smaller sample sizes of 50 or less can experience significant deviations from normal distributions. Therefore, the thesis, uses sample sizes of 124, for the global case as a trade-off between the percentage of missing value in the global case and the size of the dataset (Hair et al., 2010).

Another important concept that is used in the thesis is operationalization of a construct. It refers to the process in the measurement model involving determination of the measured variables that are associated with latent constructs (variables) and the manner in which they will be measured.

The thesis uses exogenous and endogenous constructs as latent, multi-item variables. Exogenous variable is a predictor or independent variable that is determined outside of the

model. In the visual path diagram exogenous variables do not have any path coming into it. On the other hand, endogenous, predicted or dependent variables are defined by factors within the model. Also, they are dependent on other constructs. The dependence paths are visually represented as paths coming from exogenous or from other endogenous constructs. It is important to mention that based on the theory implemented in the model, the researcher determines whether latent variables (constructs) are either exogenous or endogenous variables. In most cases, a single SEM model most certainly will support both correlational and dependence relationships which is the case in this thesis.

Both exogenous and endogenous constructs are important in visual representation of a model which represents the underlying theory, where theory can be regarded as a systematic set of relationships providing a uniform and inclusive clarification of phenomena (Hair et al., 2010)

There is an interesting theoretical concept related to the structural relationships among observable and unobservable variables in a model. The multivariate statistics supports two types of relationships between unobservable variables (constructs): dependence and correlational (covariance) relationship. Relationships between constructs and variables are called measurement relationships. Any relationships with a dependence path pointing to an endogenous construct is considered dependence relationship while exogenous constructs have only correlational relationship with other exogenous constructs (Hair et al., 2010, p. 615). The latter is particularly important for the thesis since it relates to the confirmation of the H2 hypothesis.

In addition, inductive analysis will be used in relating the observed (exogenous) variables and latent (endogenous) variables to define the concept of the model. Furthermore, deductive approach is adopted to form the theoretical framework, research questions and hypotheses prior to data collection and analysis. For the global case, the study will rely on the country or national global indicators obtained from the established global datasets which come from the on-line sources or directly from the institutions' databases. Based on the works of Saunders, Lewis, & Thornhill (2016, p. 436), in the case of the case of Serbia, the thesis uses data from the Google Forms based survey conducted on foreign tourists visiting Belgrade and Serbia during the period between September 2018 to April 2019.

Furthermore, the inductive approach will be used in evaluation of the collected data to reveal which themes and concepts are of interest for the study. According to Saunders et al. (2016), data will be assessed as they are collected to develop a conceptual framework for further analysis. The research questions and research propositions are compared to the previously established hypotheses. In this thesis, improvements and new developments of the established theory are applied in interpretations, analysis and data collection. Using inductive method, latent (predicted) variables are operationalized from the extracted factors or groups of variables producing constructs that will be interpreted as destination social, economic, environmental, awareness, image, quality and loyalty dimensions, as shown in Figure 2.7 on page 47.

The country-based global data will consist of country-level proxy quantitative indicators, with some statistical and mostly survey-based proxy multi-national quantitative indexes of various continuous scale, see Table 6.1., page 108. Global indicators, which decades ago were technically and financially difficult or impossible to obtain, are now available due to the proliferation of the various on-line sources (Alfsen & Greker, 2007; Evans, Srezov, & Evans, 2015). Additionally, demand for global surveys have mushroomed the creation of quantitative

indicators that are rapidly closing the gap between primary and secondary data, because in many instances, they are so close to the specific subjects of interest. Growing number of global indicators contribute to the higher resolution and reliability of the survey data which, in turn, have the consequence that for almost all topics and issues there is data available on-line (Nunkoo & Gursoy, 2012; Alegre et al., 2010; Ram & Hall, 2015; Petrenko, 2015).

Similarly, the second set of data, the primary survey data of a case of Serbia were collected in the on-line internet-based survey of the foreign tourists in Google Forms application, see Table 6.2., page 107. The case of Serbia data will serve as the basis for cross-valuation of the same proposed model used in the global case. The outcomes in both scenarios will support the robustness of the model.

Using inductive method, latent (predicted) unobservable constructs or dimensions of the proposed model (social, economic, environmental, awareness, image, quality and loyalty will be operationalized from the associated set of the observable (measurable) variables. Using exploratory factor analysis, which will be later refined using confirmatory factor analysis for the goodness-of-fit testing, constructs of the proposed theoretical model are extracted and identified, as shown in Figure 2.7, p. 47.

The study is cross validated on the two datasets: global and case of Serbia, using the two-phase analysis. The first phase will test statistical validity and reliability of the global data based on the quantitative proxy indicators from the global datasets based on the data of the selected countries. Similarly, the second phase will test the validity and reliability of the model fit between the proposed and estimated model based on the survey data from the case of Serbia. In both phases, the sustainability domain is conceptualized with three dimensions: economic, social and environmental while the destination brand equity domain is conceptualized as awareness, image, quality and loyalty, as proposed in the conceptual framework in Figure 2.7, on page 47.

Next, in the global case, dimensions will be conceptualized with quantitative indicators of different scale, with a possibility for scale normalization. The global indicators are listed in Table 6.1., page 108. Similarly, for the case of Serbia, all variables will be operationalized using the eleven-point Likert scale from 0 “absolutely yes” to 10 “absolutely no” (Tasci, 2018), as shown in Table 7.1, page 139. The preference for eleven-point Likert scale over 5 or 7-point Likert scale, is given to increase granularity and reduce “interval” issues. The interval issue is evident in the 5 or 7-point Likert scale, where the interval between “agree” or “strongly agree” tend to be inconsistent from one respondent to another.

Likert scale was introduced in 1932 by Rensis Likert, professor at the University of Michigan, with intention to provide a tool for more precise evaluation of the survey data in the social studies (Likert, 1932). Ever since, the Likert scale became one of the most used methodologies in the various fields of research, but mostly has been used in the social sciences. However, from the start, the Likert scale methodology was followed by the ongoing controversy which is still present. The controversy is a result of the two opposing and competing views that have developed relatively independently from one another. One view is that Likert scale produces “ordinal” data while the other suggest that the data is “interval” in nature. The thesis adopts the “intervalist” view based on the analysis by (Carifio & Perla, 2008). The intervalist view supports using more sophisticated statistical tools such as analysis of variance, multivariate analytical tools, and factor analysis to mention few.

In both scenarios, global and case of Serbia, Cronbach Alpha, Kaiser-Meyer-Olkin Test (KMO) and Bartlett's test of sphericity, will confirm the internal suitability of the data. Cronbach's Alpha (CA) is the estimate of the internal reliability and consistency associated to the scores that can be derived from the scale or composite score reliability analysis. The CA shows if it is justifiable to interpret scores of the data. Anything that shows Cronbach's Alpha over 0.7 or over 70% of reliability, is considered acceptable. Next KMO is a measure of sampling adequacy which is an indicator of whether the correlations matrix is proper for factor analysis. Even though many sources suggest that KMO should be over 0.5 in this thesis we can accept only values over 0.65 (Kaiser & Rice, 1974, p. 112). Bartlett's Test of Sphericity should be significant showing the p-value under 0.05, suggesting that the number of dimensions can be reduced.

The exploratory factor analysis (EFA) in SPSS (Statistical Package for Social Sciences) software package, version 21, is conducted to confirm the dimensionality of the conceptual framework and loading factors. The EFA is a statistical tool for measuring correlations between the variables in the given dataset without using any previous theory or information on how to group the variables. The EFA reduces the number of variables to a more manageable number for further analysis and, at the same time, preserves the sufficient amount of information of the original data size. The EFA is the first phase in making ready the variables for the more straightforward structural equation modeling. The confirmatory factor analysis CFA conducted in AMOS (Analysis of Moment Structures) software package, version 23, is used to confirm the model fit between proposed and estimated model as suggested by Byrne (2016).

Furthermore, structural equation modeling analysis SEM or path analysis, in AMOS, version 23, is used to analyze the causality and hypothesized relationships between the dimensions of the proposed model. The analysis of the overall impact of the elements of sustainability on the elements of destination brand equity will test the previously developed hypotheses.

5.1. Developing Research Instrument

Design of the research instrument is intended to support measuring the relationships between the elements of the proposed hypothesized model as shown in Figure 4.2, page 80. The goal is to cross-validate the hypothesized findings in the global and the case of Serbia as well as to reveal the impact of the elements of sustainability on the elements of destination brand equity. The choice of the global indicators is specifically intended for the scenario which includes country datasets.

For the global case, the thesis uses a predefined set of global indexes or indicators from the datasets of the selected reputable institutions specialized in collecting, analyzing and interpreting global country data, as shown in Appendix A. There is a growing interest by many parties, including governments, nations and sovereignties, to improve their competitive position in the global markets to gain upper hand in various political and business scenarios, and to increase efficiency and effectiveness of their operations (Anholt, 2007). Consequently, such interest creates a greater demand for the global data and global indicators. Besides, global datasets are professionally gathered by specialized institutions with significant finances and specialized manpower. The datasets could be statistical, survey or combination of both. For

example, arrivals, GDP, length-of-stay and expenditure are statistical indicators. However, happiness index, government effectiveness, quality of nationality, attractiveness, image and awareness indexes are survey based. Detailed information on global indicators is given in Appendix A.

In the original statistical format, indicators are constructed from several hundred to over a thousand responses for each country. Statistical data are pre-tested for reliability, validity and normality giving the advantage of using global indicators for the quality of data. Therefore, only reliable and reputable data sources, with a high reputation within the research community, are used in this thesis. All data used in this thesis come from the public domain. Nevertheless, using global datasets in tourism destination research is still in its infancy.

Consequently, on the supply side there are proliferation of many global databases with indexes exceeding the pool of 100 countries. Theoretically, at the global level, country data can be collected from about 300 nations and sovereignties. However, at the moment, the quality country-data for empirical research are realistically available from up to 150 developing and developed countries. Every year, the number of countries and sovereignties taking part in the development of various global datasets, is increasing, which is the good news for the future research.

As mentioned above, only recently global databases became available on-line in the public domain. The intent of using global indicators is to 1) confirm the proposed model and presented hypotheses 2) prove applicability of the model across different countries, regions, and nations, 3) increase universality and robustness, and 4) develop a tool for monitoring, tracking and analyzing development of the destination brand equity and destination sustainability.

On the other hand, survey data is used to narrow the research to a more specific case that will be used to cross-validate the proposed model on the empirically collected data of a case of Serbia with intention to confirm the global case or vice-verse. The advantage of using survey data over global indicators is that there is no need for proxy variables and there are no missing fields issues. However, the issues related to normality such as skewness and kurtosis remain. The survey data gives more control over the variables or research questions allowing surgical precision in obtaining relevant data. The most significant advantage of the survey data is that it can be customized to a specific domain or specific issue. On the downside, besides size, the survey data could be prone to normality issues such as skewness and kurtoses. This thesis uses case of Serbia data to cross-validate the proposed hypothesized model utilizing destination sustainability elements and destination brand equity dimensions of a case of Serbia.

5.2. Data Collection and Preparation

The global data is collected on-line or directly by obtaining datasets from the international institutions in the form of proxy variables. For the global variables in this thesis, which are outlined by the theoretical concepts, it would be very difficult to find exact match on-line. Therefore, proxy variables, that reflect the substance, nature and similar meanings are used. Next, the on-line data is transferred into the Excel-type database for further statistical analysis. In this thesis, the number of missing data in the global dataset are reduced to 15% allowing for the acceptable number of country data and reasonable size of the research instrument. Data is

checked for normality, outliers, kurtosis and skewness. All missing data are imputed by mean values as suggested by Hair et al. (2010).

The case of Serbia survey data comes with no missing values and no outliers since the questions are in the close format and are streamlined with Google Forms application. Still, normality issues such as kurtosis and skewness are possible. Those data are either eliminated or replaced by means.

5.3. Multivariate Modelling

The thesis relies on techniques and methods of the multivariate statistics to analyze, evaluate, test and confirm specified hypotheses and relationships. One of the main goals of the multivariate techniques such as factor analysis, multivariate analysis of variances, discriminant analysis, multiple regression and others are to expand researchers' and scientists' explanatory capacity to efficiently use statistics in their research. They also, provide researchers with effective tools for addressing many of the theoretical and managerial questions.

As datasets in social, behavioral, marketing, economic, political, psychology, and education sciences have grown complex over the years, the sophisticated statistical methods become extremely significant and important in interpretation and analysis of such data. Very often in social sciences as well as in marketing research we cannot directly measure intended variables. In this thesis the unobservable variables are social, economic and environmental, as well as awareness, image, quality, and loyalty, in addition to destination sustainability and destination brand equity.

In multivariate statistics those variables that cannot be directly observed are called latent variables, latent constructs, latent factors or simply factors. The names are used interchangeably in this thesis. Sometimes, there are cases with models represented by a single latent variable, however, most models are multidimensional involving multiple latent variables.

In this thesis we are confronted with a set of interrelated sustainability and brand equity variables, how those variables support the parent variables (economic, social, environmental, awareness, image, quality and loyalty), and how the parent variables are related to one another. The number of issues between sustainability and brand equity variables have both theoretical and managerial significance. The only statistical tool that can fully address all these issues is structural equation modelling (SEM) technique, which is an extension of **multivariate techniques such as multiple regression analysis and factor analysis**.

Structural equation modelling is mostly used in analyzing theories that contain multiple equations including relations with dependent variables. Important feature of the structural equation modelling is a capability to evaluate a series of mutually dependent hypothesized relationships at the same time. SEM is the only technique that allows for analysis of both measurement features and theoretical causalities in one place.

5.4. Structural Equation Modelling

The research community considers structural equation modelling (SEM) as the primary multivariate technique followed by the cluster analysis and MANOVA (Hershberger, 2003). Origins of SEM date back to the first half of the twentieth century when economic and genetics research were in full swing. At that time, scientists needed a statistical tool for evaluating

relationships between variables (Blalock, 1962). The problem that scholars and researchers experienced was lack of computers and software programs to support complexity of SEM. The progress was made in the late 60's and early 70's when the calculation was done on latent constructs using maximum likelihood estimation by Jöreskog & Sörbom (1976). The work of Jöreskog & Sörbom lead to the development of the LISREL (Linear Structural Equations) program, which was the first software package to gain large popularity and usage for calculating SEM or path analysis. By 2000 and today, SEM became a number one choice for multivariate analysis (Byrne B.,1998; Jöreskog & Sörbom, 1997; Jöreskog, 1981).

Most multivariate techniques can evaluate only a single relationship at one time. It is true even for the techniques such as canonical analysis and multivariate analysis of variance, which allow for multiple dependent variables. They all represent single relationships between independent and dependent variables. What sets SEM apart from other multivariate techniques is the ability to evaluate multiple relations at one time.

SEM is a tool that combines features of factor analysis and multiple regression analysis that provides scientists and researchers with a tool to simultaneously evaluates a set of causalities among the evaluated variables as well as between several latent once. However, to represent interrelationships of variables between constructs requires a structural model. The structural model is a collection of one or more dependence relationships expressed by the hypothesized model's constructs (Hari et al., 2010).

Dependence relationship between two latent constructs is known as structural relationship. In the diagram, they are denoted with an arrow showing dependency. Endogenous (latent) variables can depend on another constructs, however, exogenous (predictor) constructs cannot be dependent on either exogenous or endogenous constructs.

SEM is also referred as covariance structure analysis, latent variable analysis, or by a name of the statistical software packages such as AMOS, LISREL and others. Regardless of the testing procedures, all SEMs are characterized by the following three characteristics:

1. Estimation of multiple and interrelated dependence relationships.

2. Presentation of measurement errors of the estimation process and outline of unobserved concepts in the relationships.

3. Definition of a deterministic model for explaining the entire set of relationships.

SEM is a tool that estimates a set of independent, individual, equations at the same time, based on the predefined paradigm used by the statistical program. To analyze which independent variables predict each dependent variable, a researcher relies on prior experience, theory and research goals. A series of structural equations are than used for each dependent variable. SEM is different from other multivariate analyses since it allows for multiple evaluations of dependent variables.

Survey generated data are not a prefect measure of someone's answer. People can overstate or understate their answers causing measurements errors in the collected data. Consequently, the answers could affect the estimate of the true structure of the coefficients. Thus, internal consistency based on the degree to which a latent construct and its corresponding indicators are interrelated is called reliability. Reliability stands for the magnitude to which indicators measure the same thing. Increase in reliability means that more of the variance is explained in each indicator. The more of the outcome is explained the lower the measurement error (Hari et al., 2010).

In the SEM analysis, it is important to make a distinction between independent and dependent constructs. Slightly different terminology is applied since the concept calls for predicting latent constructs with other latent constructs. Like independent variable, exogenous latent constructs are defined outside of the paradigm. On the other hand, endogenous latent constructs are identical to non-independent variables and are theoretically determined by variables within the model. Visually, in a path diagram, the dependent relation is depicted by an arrow from an exogenous construct to endogenous constructs or from one endogenous construct to another, but not from endogenous construct to exogenous construct.

Furthermore, following suggestion of Hari et al. (2010), the thesis defines a model as representation of a theory, where theory is defined as a collection of relationships that offer a broad and coherent explanation of phenomena. Theory is not only limited to academic domain but also can be derived from practical experience gathered by observation of the real-world behavior. The thesis uses two underlying theories, sustainability and brand equity, as the basis for the model. The sustainability and brand equity model together consist of seven constructs as shown earlier in Figure 2.7., page 47. In the visual format, the diagram that portrays the relationships between constructs is called path diagram.

Strong theoretical basis for detailed description of both measurement and structural model are prerequisite for any SEM analysis. The fundamental role of the SEM theory is outlined as:

- (1) Definition of model relationships.
- (2) In case of cross-sectional data, it is important to show causation.
- (3) Formation of the modeling strategy.

Also, it is important to notice that two types of structural relationships exist between latent constructs in the structural model: dependence and correlation (covariance) relationship. The simple dependence relationship between exogenous and endogenous constructs is denoted as straight arrow pointing from independent (exogenous) variable to dependent (endogenous) variable. In the structural relationship no paths are coming into the independent construct which has only correlational relationship with other constructs (Hari et al., 2010).

After confirming the model-fit using CFA and, validity and reliability of the model the next step is to confirm the hypothesized relations between the model components. For that purpose, the structural equation modelling (SEM) method or path analysis is conducted in AMOS software package. The SEM analysis of the data must meet the criteria outlined in the Table 6.1., page 108. Next, all paths must be significant for p values below 0.01 and 0.05. Also, in the SEM analysis the correlations factors are the same as regression weights, which are used to prove causality (Hari et al., 2010).

To confirm the H1 and H2 hypotheses, the higher-order factors are used to establish the existence of the common variables that significantly explain low-order variables as presented in the work of Konecnik & Gartner (2007). In the proposed model, sustainability and brand equity constructs are defined as higher order unobservable variables or latent factors. The sustainability construct is a high-order exogenous construct of economic, social and environmental low order factors, while brand equity is a high-order construct of image, awareness, quality and loyalty factors. Since the higher-order factor is considered a latent

variable (endogenous), therefore, all variables that a second-order variable represents must include error terms in the path diagram.

5.5. Structural Equation Modeling Process

Because of its appealing way ² test theory, SEM has become an attractive multivariate technique among the researchers. If a theory can be expressed as a set of relationships between observable variables and latent factors or constructs, then it will be possible to use SEM to evaluate how well the theory matches the reality as described by data. The diagram in Figure 5.1., p. 94, shows five subsequent stages of the SEM process as follows:

Stage 1: Defining individual constructs

Stage 2: Developing and specifying the measurement model

Stage 3: Testing for reliability and validity

Stage 4: Defining the structural model

Stage 5: Assessing structural model validity

5.6. Stage 1: Defining Individual Constructs

Testing hypotheses that include structural relationships between the constructs are as ¹³ reliable as the measurement model that defines how these constructs are created. Thus, a reliable and valid measurement model is a prerequisite for obtaining useful results from SEM. Therefore, the process how the measurement items are selected to define each construct is the bases for the entire SEM analysis.

The process of construct operationalization requires that corresponding theoretical framework of the constructs are well defined. The operationalization of the constructs requires defining measurement scale items and scale types of each construct. In the global scenario, different scales of measurement, used in prior research, are used depending on the type of global indicators. In the case of Serbia scenario, 11-point Likert scale developed specifically for this research is used as suggested by Netemeyer, Bearden, & Sharma (2003). This is acceptable since there is no prior history of the previous research on Serbia.

Finally, an extensive pre-testing procedure should be applied to screen items for appropriateness. In this study, scales are used in the contexts, therefore, pretesting is an important process of getting the research in the right direction from the beginning. The importance of the pre-testing is to show items that behave statistically and eliminate items that do not. Therefore, pretest results are empirically tested to avoid the problems when the final model is analyzed per guideline of Hair et al. (2010).

Once scales are defined, data is collected, exploratory factor analysis (EFA) in SPSS is applied on data to determine the number of underlying constructs and corresponding measurement variables.

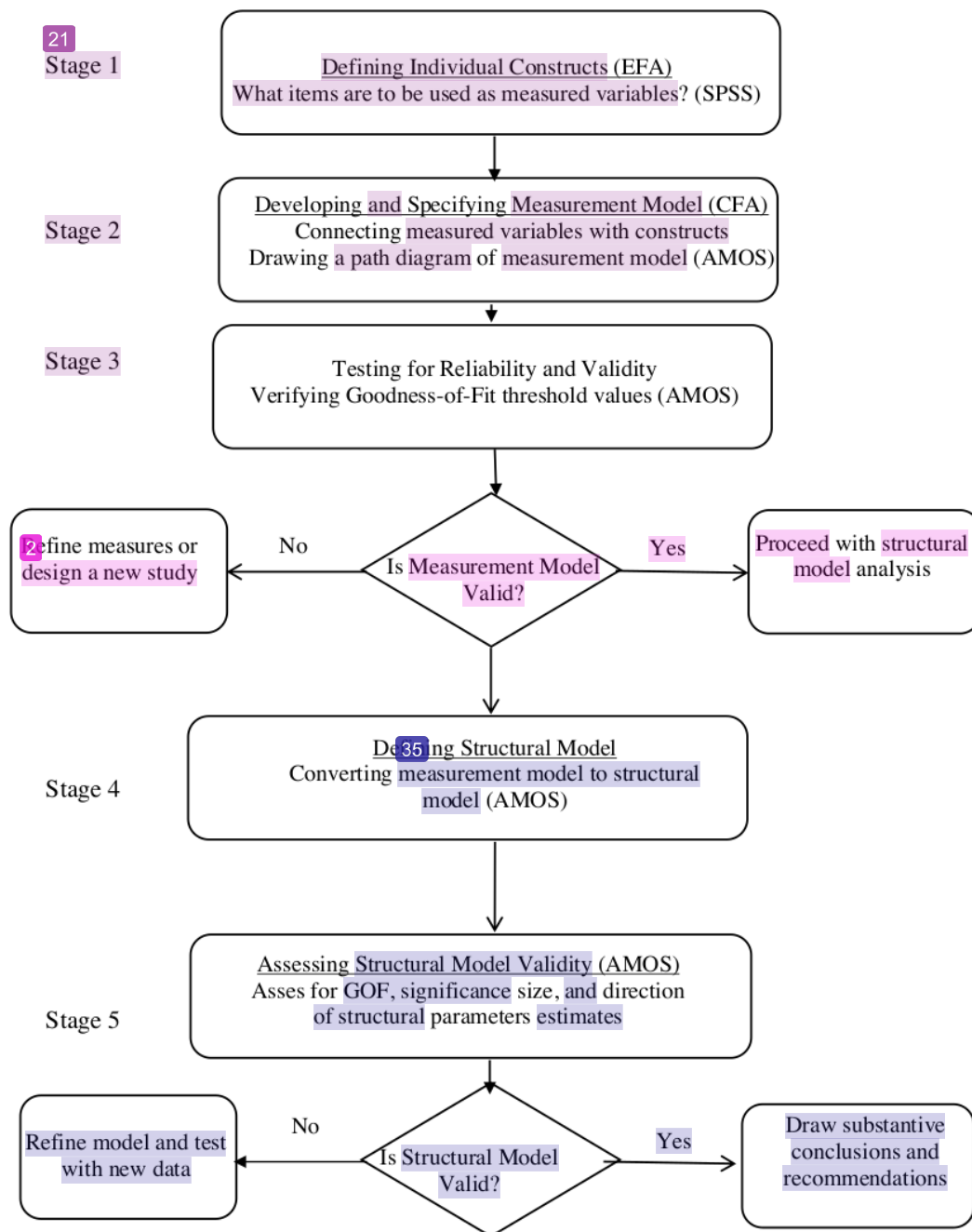


Figure 5.1. Structural Equation Modelling Process (Hair et al., 2010)

Exploratory Factor Analysis (EFA) is a model-based technique which gives us the knowledge about population. The EFA is using techniques such as statistical significance, precision of estimation and goodness-of-fit. It provides us with means to link the observable variables to the unobservable ones.

To measure latent variables, it is necessary to collect several observable variables which we feel are associated and likely to be indicators of latent variables. To find a set of corresponding observable variables it is necessary to consider some intuitive understanding of the latent variable for which we are interested in. If the survey is large in size with the number of indicators exceeding 30 or more survey questions, it may be a good idea to reduce the number of indicators or observable variables to a more manageable size for analysis without important information loss (Bartholomew et al., 2008). In this thesis, we start with analysis of the predefined set of latent variables and look to name observable variables or indicators that are closely associated with the corresponding latent variables. Also, in this thesis, we use interchangeably observable variables, measures and indicators to refer to measured variables.

The characteristic that differ EFA from other multivariate tools is that factors are obtained from the statistical outcome not the theory. This means that underlying pattern of the dataset defines the structure of the latent variables. Therefore, EFA is performed without any prior knowledge about the number of latent variables and the prior relationship between observable variables and associated latent variables. Consequently, the number of variables and their distribution among factors is determined by EFA analysis conducted by a software package. This thesis uses SPSS version 21. Therefore, the resulting factors can only be named after the EFA is performed (Hair et al., 2010).

The essence of the factor analysis is to supply information about latent variables provided that the observable variables are known, using regression type relationship. Consequently, the knowledge about latent variables can be obtained only indirectly. The assumption here is that a latent variable is associated to several observed variables which depend on it, causing a correlation between them. The correlation between indicators is considered as a common source of influence. In EFA, all measured indicators or variables are related to every factor by factor loading estimate. The desirable outcome is when each observable variable loads highly on only one factor and has smaller loadings (i.e. under 0.4) on other factors (Hair et al., 2010).

The importance of the latent variable analysis is to find out if the correlations between the observed variables can be explained by a reduced number of latent variables. Therefore, latent variable models can be used in exploratory or confirmatory analysis. The exploratory analysis is used to find underlying (reduced) set of items for latent variables. On the other hand, the confirmatory analysis or measurement model analysis, which will be explained later in the text, is used to measure if the proposed concept is consistent with the estimated one (Bartholomew et al., 2008).

In this thesis the EFA is conducted in SPSS, version 21, on the proposed dataset. Prior to EFA the Cronbach Alpha is calculated. After selecting the extraction and rotation method, number of iterations, and the criterion of eigenvalue-greater-than-one, data is outlined in the pattern matrix (Bartholomew et al., 2008). After confirming the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity, data is analyzed in the pattern matrix for further reduction. The correlation matrix is evaluated for values between 0.3 and 0.7 and the possibility to repeat

the EFA with different extraction and rotation options depending if data is oblique (correlated) or orthogonal (uncorrelated).

Next, the number of individual variables is reduced and grouped into the factors by dropping items with multicollinearity and standardized loadings under 0.5. The value of the average standardized loadings per latent variable is preferable above 0.7. The recommended number of variables per factors is between 3 and 5, however, 2 variables per factor are acceptable which depends on the structure of factors and availability of data (Kenny, 2016). The sums of the square loadings should preferable be over 50% to capture the sufficient amount of the information from the original dataset (Hair et al., 2010).

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5.7. Stage 2: Developing and Specifying Measurement Model

In this stage, the measurement model is defined based on the specified scale items. First, each latent variables of the model are identified. Second, observable (measured) indicator variables must be ascribed to latent constructs. AMOS offers convenient graphical way to represent the relationships of the diagram. It is important to label symbols for constructs, indicators and relationships among them. To make the process of defining the measurement model easy to structure the following issue must be addressed:

- 1) Theoretical bases for the relationship between construct and indicators must be established, in addition to the empirical support for constructs' unidimensionality and validity.
- 2) Minimum and maximum number of indicators for each construct
- 3) Should indicators describe or explain the construct. Latter suggests considering construct as an indicator.

The research effort in evaluating the measurement model must test the reliability and validity. As a part of the scale development effort several indicators and the type of constructs must be addressed. The thesis utilizes confirmatory factor analysis (CFA) to define measurement model of goodness-of-fit analysis.

Confirmatory Factor Analysis (CFA) is a multivariate technique to determine how well measured variables represent a smaller number of latent variables. In this thesis CFA and measurement model analysis are used interchangeably. Unlike EFA, where predetermined guidelines are used to determine proper number of variables and which variables load on a specific factor, with CFA the number of latent variables and the set of corresponding indicators for each latent variable are determined by a researcher. Therefore, in CFA, statistical functions are not intended to assign indicators to factors. Instead the researcher, based on the adopted theory, makes the association between variables and factors before any results can be produced. Also, an observable variable or indicator is assigned to only a single latent variable, without any cross-loading (loadings on multiple single factors) associations.

CFA is a way to confirm and test the strength of compliance between prespecified latent variable constructs including factor loadings of real data and a-priori theoretical model of factor loadings. Thus, CFA statistics shows how well our theoretical assumptions of the factors correspond to reality. Therefore, CFA can be considered as a tool that either confirms or rejects our predisposed theory (Hair et al., 2010).

This thesis uses CFA to confirm and test the proposed measurement theory. In other words, measurement theory outlines how well observable variables systematically and logically

form the relationships among constructs in the proposed theoretical model. Furthermore, measurement theory analyzes a set of relationships between the observable variables and corresponding latent constructs which are not directly measured. Therefore, measurement models are further used with structural theory to fully specify the SEM model.

Next, constructs in measurement theory must first be determined. Unlike EFA, in CFA a researcher uses a predefined set of observable variables and latent constructs. A predefined set of relations is applied between the observed and latent variables, a process that is known as operationalization of the measurement model.

The CFA analysis produces five elements: latent variables, observable variables, loadings between constructs, the relationships among constructs, and error terms for each indicator. The latent variables are presented in diagrams as ellipses while observable variables are presented by rectangles. Two headed curved arrows are used to depict correlational relationships between latent variables, suggesting that all latent constructs are exogenous. The relationships between respective observable variables and latent variables (called factor loadings) are shown by arrows from the construct to the observable or measured variable. Since a latent variable doesn't fully explain the measured variable, error terms are added to measured variables (Hair et al., 2010).

5.8. Stage 3: Testing for Reliability and Validity

After reducing number of variables in EFA, by determining the number of factors and their individual structure, the confirmatory factor analysis (CFA) is conducted in AMOS software package, version 23. to determine the model fit between the proposed and estimated model. The benchmark analysis, based on the criteria outline in Table 5.1., p. 98, is used to confirm the model fit.

The next stage is assessment of the measurement model reliability and validity. As the measurement model is correctly defined, an empirical evaluation of the relations between variables and constructs as suggested by the measurement theory is tested. The reality presented by the empirical sample data is compared to the theory. In short, the validity of the model shows how well theory fits the data.

To compare the theory against the reality as given by the collected data sample the reliability and validity of the measurement model must be established (Kenny, 2016). Put differently, we need to know how strongly theory fits the data. After the measurement model is finalized and specified, an empirical measure of the associations between indicators and latent variables or constructs are outlined by the measurement theory.

Assessing Fit. The results of the CFA allow as to test and verify whether a covariance matrix of the measured data is represented sufficiently by the covariance matrix based on the theory. The fit analysis compares the two covariance matrices.

Path Estimates. Analyzing path estimates involves evaluating links between latent variables to indicator variables. The rule of thumb suggest that loadings are acceptable for values 0.5 or higher. Loadings that are meeting the criteria suggest strong associations of indicators to their related constructs and show construct validity. These guidelines can be explained similarly to differences between correlation and covariance since, in both cases, they are related to the standardized loading estimates. The standardized loading estimates cut distortions of the different scales of the measures.

Also, it is important to evaluate statistical significance of each coefficient. In case of insignificant estimate, a variable should be removed. Another important fact is that significance alone does not show a valid path. Low loading, those under 0.5, are potential candidates for removal from the model. The following highlights the key terms for evaluation of the reliability and validity.

Construct Validity. Validity is concerned with the accuracy of measurement. It shows the degree of accuracy of the research. Important goal of the CFA and SEM is to accurately determine the construct validity of the measurement model. Construct validity reflects degree of accuracy between measured variables and corresponding latent construct that those variables measure. Acceptable levels of construct validity suggest that measures taken from the real data accurately represent the actual data of the population.

Composite Reliability (CR). Threshold for the CR is 0.7 or higher. However, scores between 0.6 and 0.7 are acceptable if other measures of a model's construct validity are acceptable. High CR indicates acceptable levels of internal consistency, suggesting that the latent constructs are measured consistently (Malhotra & Dash, 2011).

Averaged Variance Extracted (AVE). The values of AVE above 0.5 suggest acceptable convergence. Convergent validity flags that variables in the model do not correlate well with each other within the latent factor. This indicates that the latent factor is not adequately explained by its observed variables (Malhotra & Dash, 2011).

Maximum Shared Variance (MSV). The rule of thumb suggests that MSV should be less than AVE. Discriminatory validity issues suggest that the variables in the model correlate more highly outside of their corresponding latent construct than with the variables within their corresponding latent construct. This suggests that latent construct is better explained by variables from other factors than by its own measured variables (Malhotra & Dash, 2011).

Table 5.1 Structural Weight Estimates Benchmarks

	Measurement Indicator (Threshold Value)	Recommended Value
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3
p value	p value for the model	>0.05
GFI	Goodness-of-fit Index	>0.90
AGFI	Adjusted Goodness-of-Fit Index	>0.90
SRMR	Standardized Root Mean Square Residual	<0.08
CFI	Comparative Fit Index, ideally over 0.95	>0.90
TLI	Tucker-Lewis Index	>0.90
P of close fit	P of close fit	>0.05
RMSEA	Root Mean Square Error of Approximation	
	<0.05 good; 0.05 to 0.10 moderate; > 0.10 bad	

The criteria for determining Composite Reliability (CR) and, Convergent and Discriminant Validity test are:

- CR > 0.7 to confirm composite reliability
- Average Variance Extracted (AVE) > 0.5 to confirm convergent validity

c) $MSV < AVE$, and $ASV < AVE$ to confirm discriminant validity

Where MSV is Maximum Shared Variance, and ASV is Average Shared Variance

2

Absolute Fit Indices. Is a measure of how well the model outlined by researcher fits the observed data. They provide the most fundamental evaluation of how well a researcher's theory fits the data.

Chi-square (χ^2) is the only statistically based fit measure. It is difference between observed and estimated covariance matrices. If the observed model is identical with the estimated model the χ^2 equals zero showing perfect model fit. It depends on the sample size.

Degrees of Freedom (DF) represents mathematical observation that doesn't depend on the sample size. It is a sum of the elements below the diagonal in the correlational matrix and the variables on the diagonal indicating the total number of covariances terms in the matrix. It depends on the size of the covariance matrix, hence, the number of constructs (Hair et al., 2010).

Normed Chi-Square (CMIN) represents the ratio between χ^2 and the degrees of freedom of the model. Preferably, the ratio should be less than 3 and lower to be associated with a good fit of the model. It is sensitive to the sample size and can be calculated from the model's data.

Goodness-of-Fit Index (GFI). GFI is non-statistical test to examine fit statistics. It is sensitive to sample size. Estimated range of GFI is 0 to 1, with the values closer to 1 indicating better fit.

Root Mean Square Error of Approximation (RMSEA). Most commonly used indicator introduced to counter the χ^2 inclination to reject models with a large number of observable variables and sample size. Lower RMSEA values indicate better fit.

Standardized Root Mean Residual (SRMR). Is used for comparing fit across models. Lower SRMR values indicate better fit while higher values represent worse fit. SRMR is often called badness-of-fit since the high values indicate poor fit.

Tucker Lewis Index (TLI). TLI is a comparison of the normed chi-square values between the null and the specified model. Higher values suggest a better fit than the models with lower values.

Comparative Fit Index (CFI). It is moderately sensitive to model complexity. The value over 0.9 indicates good model fit. The index is normed, so its values fall in the range between 0 and 1.

Parsimony Fit Indices measure which model in the competing set of models provide the best fit based on complexity. Less complicated models or better fit improves the value of the index. It provides a useful information in analyzing competing models.

Adjusted Goodness of Fit Index (AGFI). The index takes into account differing degrees of model complexity. The index favors simpler models and penalizes the complex ones. Its values are usually lower than GFI values. AGFI is not associated with any statistical test. It is affected by sample size and model complexity.

P of Close Fit (PCLOSE). In the close-fitting model with RMSEA greater than 0.05, PCLOSE is a one side test of the null hypothesis. So, if the p is greater than 0.05 (i.e. not statistically significant) it suggests that the model fit is close. If the p is less than 0.05, it is assumed that the fit of model is worse than close fitting (i.e. the RMSEA is greater than 0.05).

It is critical to sample size and the degrees of freedom. With less degrees of freedom, the less power in the test.

5.9. Stage 4: Defining Structural Model

After confirming the goodness-of-fit using CFA, validity and reliability of the model the next step is to confirm the hypothesized relations between the model components. For that purpose, the structural equation modelling (SEM) method or path analysis is conducted in AMOS software package. The SEM analysis of the data must meet the criteria outlined in the Table 5.1, page 98. Next, all paths must be significant for p values below 0.01 and 0.05.

When there is a high correlation between the first-order constructs, there is a possibility of creating a second-order construct or a common variable that significantly explains low-order variables (Konecnik & Gartner, 2007; Iniasta-Bonillo et al., 2016). The second-order factor is considered as predictor or exogenous latent variable. Consequently, all the variables that second-order variable represents must include error variables. Also, in the SEM analysis the correlations factors between exogenous constructs are the same as regression weights, which are used to prove causality (Hair et al., 2010).

In the previous stage, measurement model is specified by assigning indicator variables to the constructs they should defined. In this stage the structural model is defined by specifying hypothesized relationships among the constructs based on the proposed theoretical model. The relationships between the constructs represent hypotheses of the adopted model. In this thesis, that would be 14 hypothesized relationships between sustainability constructs and destination brand equity constructs. The next section will describe how defining a measurement model is a critical step in developing a SEM model.

5.10. Stage 5: Assessing Structural Model Validity

In the final stage, validity of the structural model and its corresponding hypothesized theoretical relationships are tested for validity. Prerequisite for the validity test is the successful evaluation of the reliability and validity in the measurement model. If that is not the case, the analysis should be terminated at Stage 3. Without acceptable fit of the measurement model, the fit will not improve in the structural model.

There are differences in evaluating the fit of a measurement model and structural model. In the measurement model all constructs are assumed to be correlated to one another. However, in the structural model the relationships between some constructs could be zero. This means that structural model in most cases holds fewer relationships among constructs since not every construct will be hypothesized to have a direct relationship with every other construct. In that regard, a measurement model is less constrained than a structural model because more relationships in the structural model are set to zero and excluded from estimation.

Consequently, the χ^2 goodness-of-fit of the measurement model will be less than χ^2 goodness-of-fit for the structural model. Overall, the closer the structural model goodness-of-fit approaches the measurement model, the better the structural model goodness-of-fit. The reason is that measurement goodness-of-fit is the upper limit to the goodness-of-fit of a conventional structural model.

Structural model can be assumed to be a measurement model with added constraints. This is because structural model usually evaluates less relationships than measurement model, since not all relationships are hypothesized. As mentioned earlier, measurement model assumes that all constructs are related to all other constructs. Adding a constraint cannot reduce the chi square value. In other words, relaxing the constraint by introducing a relationship in the model should reduce the chi-square value or at least keep it unchanged (Hair et al., 2010).

So, removing or adding a path changes the degree of freedom since adding path means reducing while removing path means adding constraint. So, adding one constraint means that chi-square difference test will have one more degree of freedom. Adding two means that test will have two degrees of freedom and so on.

It is important to mention that structural model is regarded acceptable if it is significant in a predicted direction and has acceptable model fit. The rules of thumb for the structural model validity are similar to findings in Table 5.1., p. 98, however, there are some differences:

- a) For complex models, the chances of alternative models with equivalent fit increases.
- b) Multiple fit indicators should be used to evaluate goodness-of-fit:
 - The χ^2 and degree-of-freedom (df)
 - One absolute fit index (GFI, RMSEA, or SRMR)
 - One incremental fit index (CFI or TLI)
 - One goodness-of-fit index (GFI, CFI, TLI, etc.)
 - One badness-of-fit index (RMSEA, SRMR, etc.)
- c) It is not practical to apply single set of cutoff rules to all measurement and SEM models.
- d) The quality of fit depends on model characteristics, complexity and size.
- e) Simple models with small samples should comply to strict fit thresholds
- f) Complex models with large samples should have more relaxed standards. With large

number of variables, cutoff values of 0.95 on χ^2/df or measures are unrealistic (Hair et al., 2010). In general, the assessment of the goodness-of-fit of the structural model uses the same criteria to those used in the measurement model. These measurements institute the validity of the structural model. However, the comparison with the measurement model should also be made to establish the overall fit. Since measurement model establishes an upper limit to the goodness-of-fit of a structural model, the closer the structural model goodness-of-fit comes to the measurement model, the better the structural model fit (Hair et al., 2010).

6. GLOBAL DESTINATION CASE

This chapter formally confirms the constructs of the model, causal relations and the hypotheses using the global data. The chapter introduces a multivariate analysis of the global data represented by a set of proxy global indicators. Also, the chapter presents the formation of the research instrument and data analysis. Research findings are presented with the analysis of three scenarios involving predictor variables.

Based on the proposed stages in the diagram in Figure 6.1., p. 104, in the first part, the model based on the global data are explained and operationalized for the analysis. Next the EFA is performed in SPSS to test how the data meets the theory. EFA reduces the number of observable variables to a set of factors or latent variables of the proposed model. Each extracted factor is identified with explanation of the corresponding observable variables.

In the next step, the proposed model is analyzed in AMOS software for goodness-of-fit using measurement model statistics to verify that the proposed theoretical concept meets the data. After the measurement model is confirmed, the SEM analysis is conducted to evaluate the hypothesized relations between the elements of the model.

Finally, the chapter establishes composite reliability, convergent and discriminant validity of the proposed model based on the proposed guideline in section 5.10, p. 100.

6.1. Global Case

To prove universality, generality and multi-adaptability of the proposed model the thesis uses data from the 199 countries and sovereignties obtained from 19 multi-national global databases. The initial research instrument is comprised of proxy indicators that are believed to match the seven elements of the proposed model.

The EFA analysis in SPSS further reduced the number of indicators producing seven factors that closely match the elements of the proposed model. The CFA is conducted to confirm the elements of the proposed model while SEM analysis is conducted to confirm the hypothesized relations between the elements of the proposed model.

For the exploratory multivariate analysis of the global data the analysis is conducted in three stages using SPSS and AMOS software. In Table 6.1 data is checked for normality, outliers, and missing data issues. Finally, composite reliability, convergent and discriminatory validity of the model will be confirmed.

6.2. Scale Development: Operationalization of the Model

The focus of the scale development is on the selection of global indicators that are associated to the composing dimensions of the proposed model. The model's dimensions are divided into two domains: destination sustainability and destination brand equity. The former is represented by the social, economic, and environmental constructs while the latter is formed from destination awareness, image, quality and loyalty elements.

Using different measurement scales the destination economic dimension is operationalized using nine-item scale of global proxy variables or global indicators from three global databases. The analysis uses the two sets of global economic indicators. In the first set, variables are related to the number of foreign arrivals, expenditure, and overnights, while in the

second set, the focus is on the different economic ratios. Those ratios are tourists' expenditure over exports and GDP, tourism coverage of inbound over outbound expenditure, economic wellbeing, and the number of international meetings (Table 6.1., page 105). The economic variable items in the research instrument are formulated based on the earlier research literature (Iniesta-Bonillo et al., 2016).

Destination social dimension is operationalized by thirteen-item scale on various measurement criteria from eight different global databases. Since it is difficult to directly measure the social variables such as trust, power, benefits and costs, the survey adopts the metrics of social wellbeing, world corruption index, talent, national IQ, world happiness, safety, health care, and indicators related to the usage of internet (Table 6.1., page 105). Also, on-line based social networks have significant influence on the social aspects related to tourism (Gössling, 2016; BBMG, 2016).

Destination environmental dimension is operationalized using twelve-item scale or global indicators from six different global databases or research institutions supported by the earlier research (Buckley, 2012; Iniesta-Bonillo et al., 2016). The variables are operationalized using different measurement scales. The environment sustainability is the original area of focus by the research community. It relates to the natural capital and, state of the renewable and non-renewable resources. In this thesis they are operationalized as the impact that pollution, protection of territories, environmental wellbeing, environmental awareness, improved water sources have on the environmental dimension of the proposed model, Table 6.1., page 105.

Awareness of a country as a destination is particularly difficult to measure. The four-item scale is supported by awareness, attractiveness, effectiveness of marketing and google-trend-search indicators. The research instrument indicators, attractiveness and awareness, are formulated using Image Travel database, which shows awareness and attractiveness of countries as tourism destinations from the Nordic tourists' point of view. The third indicator is defined by using metrics of the effectiveness of marketing and the number of times a country comes up while searching the internet (Google Trend). The latter is obtained by using Google Trend application. These four global indicators are collected from three different databases of different measurement scale (Table 6.1., page 108). Aaker (1996) suggests that the top-of-mind awareness is difficult to measure when a visitor has already got experience with a destination (Konecnik & Gartner, 2007; Boo et al., 2009; Pike et al., 2010).

Destination image is operationalized using seventeen-item scale consisting of proxy variables or global indicators from four global databases of different metric scale. The list of image items is deduced from the previous tourism research literature (Konecnik & Gartner, 2007; Pike et al., 2010; Boo et al., 2009). The proxies are represented by travel image, competitiveness, country brands, adventurousness, heritage and culture, Table 6.1., page 108. The indicators are selected to stand for the motive or emotional attachment tourists have towards a destination.

The conceptualization of the destination quality is formulated using twenty-one items from four different databases, all operationalized in different measurement scales. The tourism literature-based items are selected to capture the quality of service, superiority and performance (Konecnik & Gartner, 2007; Pike et al., 2010; Boo et al., 2009). The thesis supports destination quality through the set of global indicators such as quality of country index, effectiveness,

infrastructure, quality of life, purchasing power, traffic commute time, property price to income ratio, infrastructure, and priority of travel and tourism, Table 6.1., page 105.

Finally, destination loyalty is particularly difficult to measure using global indicators. The concepts of preference, emotional attachment, recommendation, paying premium and revisiting are not sufficiently covered at the global level. Therefore, destination loyalty is conceptualized using five proxy indicators of different measurement scale from four different global databases. As a result, the thesis uses indicators that relate to the country brand and country index to show preference and attachment, Table 3.1., page 105. The indicators are based on the earlier tourism literature assessments of the destination brand loyalty (Konecnik & Gartner, 2007; Pike et al., 2010; Boo et al., 2009).

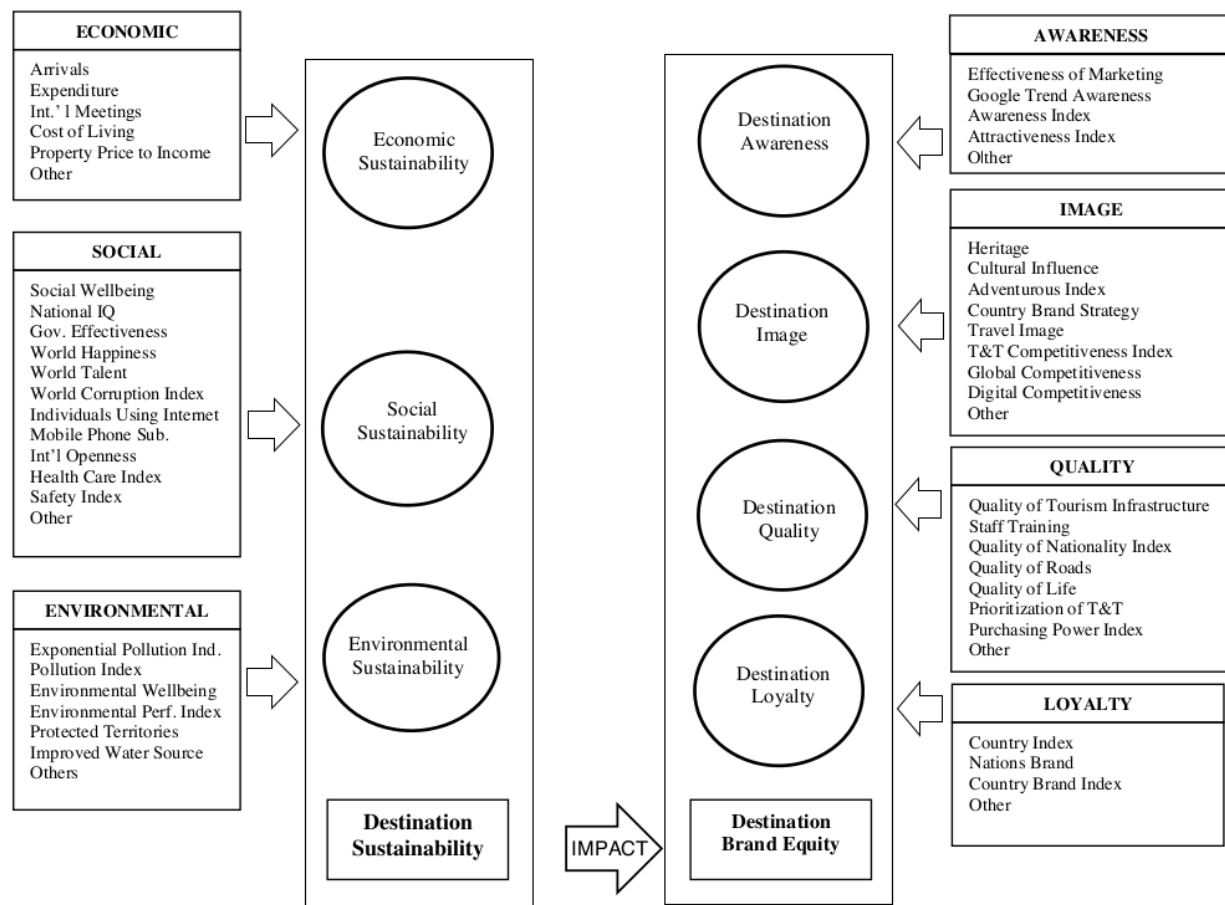


Figure 6.1. Scale Development Global Case

6.3. Research Instrument

Indicators in the research instrument are related to the dimensions of the proposed model and are of different metrics. The research instrument consists of 77 quantitative indicators extracted from 19 global databases. Indicators are of different statistical, empirical or measurement type.

The original number of countries used in the analysis is 199 with the 38% of the missing data. The preparation for the EFA reduced the number of empty fields to 15% and the number of countries to 124 which is justified by Hair et al., (2010). The EFA further reduced the number of variables (indicators) to 31, and the number of empty fields to 15%, which is considered acceptable for further analysis as justified by Hair et al., (2010). The missing fields are filled out by the corresponding means. Also, data are checked for outliers by analyzing the maximum and minimum values (Hair et al., 2010). Furthermore, there are 25 indicators with the number of countries under 100, see Table 6.1. All indicators from the World Economic Forum while The Travel & Tourism Competitiveness Index come from the Crotti & Misrahi's, (2017) report, however, individual indicators in the report have different dates of origin.

Normality of the data in the research instrument are evaluated by mean, median, skewness and kurtosis. Total of five indicators are removed because of kurtosis and skewness issues, further reducing the number of indicators to 77.

Table 6.1. Global Research Instrument

Item	Data Source	# of C
Social Sustainability		
Social Wellbeing	SSI 2017	151
World Corruption Index	Transparency Int'l 2018	187
World Talent	IMD 2017	61
National IQ	Intelligence 2012	137
World Happiness	WHR 2018	149
Safety Index	Numbeo 2018	70
Health Care Index	Numbeo 2018	70
Individuals Using Internet	Crotti & Misrahi 2017	136
Fixed Broadband Subscription	Crotti & Misrahi 2017	133
Government Effectiveness Index	World Bank 2017	187
Mobile Phone Subscription	Crotti & Misrahi 2017	136
Environmental Sustainability		
Environmental Performance Index	Yale University 2018	171
Environmental Wellbeing	SSI 2017	151
Protected Territories	Crotti & Misrahi 2017	176
Drinking Water	Crotti & Misrahi 2017	86
Environmental Awareness	Crotti & Misrahi 2017	82
Pollution Index	Numbeo 2018	98
Exponential Pollution Index	Numbeo 2018	98
Improved Water Source	Crotti & Misrahi 2017	175
Per Capita Fossil Fuel Emission Rates	Crotti & Misrahi 2017	179
Natural & Cultural Resources Sub-index	Crotti & Misrahi 2017	136

Environmental Democracy Index	WRI 2018	70
Climate Index	CCPI 2018	70
Economic Sustainability		
Inbound Overnight Int'l Tourist Arrivals	UNWTO 2015-2017	167
Int'l Tourist Overnights	UNWTO 2015-2017	135
Inbound Int'l Tourist Expenditure	UNWTO 2015-2017	148
Int'l Tourist Expenditure over EGS	UNWTO 2015-2017	146
Inbound Tourism Expenditure over GDP	UNWTO 2015-2017	113
Tourism Coverage Inbound over Outbound	UNWTO 2015-2017	150
Total Travel & Tourism Contribution to GDP (a)	UNWTO 2015-2017	123
Economic Wellbeing Index	SSI 2017	151
Number of International Assoc. Meetings	Crotti & Misrahi 2017	122
Destination Awareness		
Awareness Index	Image Travel 2015	96
Attractiveness Index	Image Travel 2015	96
Google Trend (a)	Google Trends 2018	199
Effectiveness of Marketing	Crotti & Misrahi 2017	136
Destination Image		
Travel Image	Image Travel 2015	96
TT&T Competitiveness Index	Crotti & Misrahi 2017	136
The Global Competitiveness Report	Crotti & Misrahi 2017	139
Digital Competitiveness	IMD 2018	141
Country Brand Strategy	Crotti & Misrahi 2017	136
Country Brand Rankings	Crotti & Misrahi 2017	168
Number of World Heritage Natural Sites (a)	Crotti & Misrahi 2017	73
Natural Tourism Digital Demand	Crotti & Misrahi 2017	136
37r attractiveness of Natural Assets	Crotti & Misrahi 2017	136
Number of World Heritage Cultural Sites	Crotti & Misrahi 2017	111
Oral and Intangible Cultural Heritage	Crotti & Misrahi 2017	91
Sports Stadiums	Crotti & Misrahi 2017	94
Cultural & Entertainment Tourism DD (a)	Crotti & Misrahi 2017	117
Adventurous	U.S. News 2018	80
Cultural Influence	U.S. News 2018	80
Heritage	U.S. News 2018	80
Destination Quality		
Quality of Tourism Infrastructure	Crotti & Misrahi 2017	136
Number of Operating Airlines	Crotti & Misrahi 2017	134
Quality of Roads	Crotti & Misrahi 2017	136
Global Infrastructure Quality	Statista 2018	100
Staff Training	Crotti & Misrahi 2017	136
Internet Use for B2B	Crotti & Misrahi 2017	136
Purchasing Power Parity	Crotti & Misrahi 2017	136
Sustainability of T&T Industry	Crotti & Misrahi 2017	136
Quality of Air Transport	Crotti & Misrahi 2017	136
Airport Density	Crotti & Misrahi 2017	106

Prioritization of T&T	Crotti & Misrahi 2017	136
Airport Charges and Taxes	Crotti & Misrahi 2017	135
Hotel Price Index	Crotti & Misrahi 2017	101
Ground Transport Efficiency	Crotti & Misrahi 2017	136
Hotel Rooms Number	Crotti & Misrahi 2017	115
Tourist Service Infrastructure	Crotti & Misrahi 2017	136
Quality of Life	Numbeo 2018	70
Purchasing Power Index	Numbeo 2018	70
Price Competitiveness	Crotti & Misrahi 2017	136
Traffic Commute Time Index	Numbeo 2018	70
Quality of National Index	Henley & Partners	175
Destination Loyalty		
Country Brand Index	Crotti & Misrahi 2017	75
Nations Brand	Brand Finance 2018	100
Country Index	FutureBrand 2017	82
Cost of Living Index	Numbeo 2018	70

C country; UNWTO The World Tourism Organization, CCPI Climate Change Performance Index; WRI World Resource Institute; DD digital demand; SSI sustainable society index; GDP gross domestic product, EGS exports of goods and services; IMD World Competitiveness Center; (a) removed for kurtosis and skewness issues.

6.4. Data Analysis

The original number of countries participating in the data collection process range from 61 to 199 per proxy indicators. After skewness and kurtosis analysis the maximum number of participating countries was reduced to 187. The average number of responses are from 121 countries while the median number of responses is from 135 countries which shows light skewness of the data to the right. The number of selecting indexes was originally 77, but was reduced to 72 for skewness and kurtosis issues

Table 6.2. Descriptive Statistics

Item	Mean	SD	SK	KUR
Social Sustainability				
Social Wellbeing	6	2	0	-1
World Corruption Index	58	27	0	-1
World Talent	63	16	0	-1
National IQ	85	11	0	-1
World Happiness	5	5	1	0
Safety Index	63	13	0	0
Health Care Index	66	10	0	-1
Individuals Using Internet	53	28	0	-1
Fixed Broadband Subscription	14	13	1	-1
Government Effectiveness Index	62	27	0	-1
Mobile Phone Subscription	117	35	0	1

Environmental Sustainability				
Environmental Performance Index	57	13	0	-1
Environmental Wellbeing	5	2	0	-1
Protected Territories	12	12	1	1
Drinking Water	81	24	-1	1
Environmental Awareness	49	11	0	-1
Pollution Index	57	22	0	-1
Exponential Pollution Index	101	40	0	-1
Improved Water Source	89	14	-1	1
Per Capita Fossil Fuel Emission Rates (a)	1	1	2	3
Natural & Cultural Resources	3	1	1	1
Environmental Democracy Index	1	0	0	-1
Climate Index	77	15	-1	0
Economic Sustainability				
Inbound Overnight Int'l Tourist Arrivals	3,376	4,562	2	2
Int'l Tourist Overnights	19,004	26,676	2	2
Inbound Int'l Tourist Expenditure	4,241	5,892	2	2
Int'l Tourist Expenditure over EGS	14	14	1	2
Inbound Tourism Expenditure over GDP	6	5	1	1
Tourism Coverage Inbound over Outbound	224	215	2	2
Total Travel & Tourism Contribution to GDP (a)	14,880	19,207	2	4
Economic Wellbeing Index	4	2	0	0
Number of International Assoc. Meetings	70	91	2	2
Destination Awareness				
Awareness Index	69	29	2	2
Attractiveness Index	214	71	-1	0
Google Trend (a)	7	12	4	20
Effectiveness of Marketing	4	4	1	0
Destination Image				
Travel Image	269	82	0	0
TT&T Competitiveness Index	4	4	0	-1
The Global Competitiveness Report	60	13	0	-1
Digital Competitiveness	73	17	0	-1
Country Brand Strategy Ratings	72	13	-1	2
Country Brand Rankings	8	1	0	0
Number of World Heritage Natural Sites (a)	2	1	2	3
Natural Tourism Digital Demand	22	24	1	1
Attractiveness of Natural Assets	5	1	0	-1
Number of World Heritage Cultural Sites	5	4	1	2
Oral and Intangible Cultural Heritage	5	5	2	2
Sports Stadiums	7	5	1	0
Cultural & Entertainment Tourism DD (a)	12	12	2	3
Adventurous	3	2	1	0
Cultural Influence	2	2	1	1
Heritage	3	3	1	0

Destination Quality				
Quality of Tourism Infrastructure	5	1	0	0
Number of Operating Airlines	44	37	2	2
Quality of Roads	4	1	0	-1
Global Infrastructure Quality	73	10	0	-1
Staff Training	5	5	1	0
Internet Use for B2B	5	5	1	0
Purchasing Power Parity	1	0	1	1
Sustainability of T&T Industry	4	1	0	0
Quality of Air Transport	4	1	0	0
Airport Density	1	1	2	2
Prioritization of T&T	4	1	0	0
Airport Charges and Taxes	70	20	-1	1
Hotel Price Index	126	43	1	1
Ground Transport Efficiency	4	1	0	-1
Hotel Rooms	1	1	1	1
Tourist Service Infrastructure	4	1	0	-1
Quality of Life	143	33	0	-1
Purchasing Power Index	72	30	0	-1
Price Competitiveness	5	1	0	0
Traffic Commute Time Index	35	7	0	0
Quality of National Index	41	35	1	0
Destination Loyalty				
Country Brand Index	26	12	1	0
Nations Brand	76	13	0	1
Country Index	4	3	1	-1
Cost of Living Index	53	20	1	1
Property Price to Income Ratio (a)	13	11	3	10

SD Standard deviation; SK Skewness; KUR Kurtosis; (a) removed for kurtosis and skewness issue

Hungary and Bulgaria are the only countries with no missing data while Cook Islands, French Polynesia, Guadelupe and San Marino show 94% of the missing data. As mentioned earlier, the countries with high number of missing data are removed. In comparison, Serbia has only 6% of missing data, see Table 6.3.

Table 6.3. Missing Data

Countries	% of Missing Data	# of Countries (Cumulative)
Bulgaria, Hungary	0%	2
Romania, Portugal Sweden, Slovakia, Poland, Jordan, Israel and mostly European countries	Under5%	34

India, Panama, Saudi Arabia, South Africa, Japan, Mexico, Russia, Serbia, Thailand, Korea and mostly Asian, Middle East and European countries	5 -10%	49
Oman, Tunisia, Brazil, Ecuador, Macedonia, Bosnia and Herzegovina, China, and mostly South American, Asian African, and Middle Eastern countries.	10 - 20%	73
Mongolia, Namibia, Ethiopia, Malta, Nepal, Albania, Bangladesh, Ghana and mostly African and Asian countries	20-30%	98
Bhutan, Senegal, Cote d'Ivoire, Gambia, Kyrgyz Republic, Benin, Malawi, Tajikistan and mostly African and Asian countries	30 -40%	125
Kongo (Kinshasa), Chad, Dominika, Lesotho, Mauritania, Barbados, Cabo Verde, Sierra Leone, and mostly Caribbean and African countries	40 -50%	136
Maldives, Bahamas, Cuba, Sudan, Fiji, Belizeand etc. Mostly small countries and sovereignties in Caribbean, Oceania and undeveloped parts of the world.	Over 50%	62

The preliminary data preparation reduces the number of countries in the analysis to 72 and the number of missing fields to 15%. After EFA the number of countries was further reduced to 32 with the 15% of the missing data. The 15% missing data passed the Cronbach Alpha, KMO and Bartlett's test of sphericity.

Next, global databases are ranked based on the country coverage, see Table 6.4. Google Trends, which has the highest coverage (199) is eliminated because of the kurtosis and skewness issues. Transparency International and World Bank cover the most countries (187) followed by World Economic Forum Travel and Tourism Competitiveness Report (Crotti & Misrahi 2017 (179) and Henley & Partners (175), Yale University (171) and World Economic Forum (167), see Table 6.4.

Table 6.4. Global Databases

Global Databases	# of Countries
Google Trends 2018 (a)	199

Transparency International 2018	187
World Bank 2017	187
World Economic Forum, 2017	73-179
Henley & Partners 2017	175
Yale University 2018	171
Sustainable Society Index (SSI) 2017	151
World Happiness Report (WHR) 2018	149
IMD World Competitiveness Center 2017-2018	61-141
Intelligence 2012	137
Statista 2018	100
Brand Finance 2018	100
Numbeo 2018	98
Image Travel 2015	96
FutureBrand 2017	82
U.S. News 2018	80
World Resource Institute (WRI) 2018	70
Climate Change Performance Index (CCPI) 2018	70

(a) removed for skewness and kurtosis issues.

Original set of proxy indicators came from the total of 18 global databases. After removing a Google Trend indicator, the corresponding database is also removed so the final number of databases dropped to 17. The number of countries covered by each indicator range from as little as 61 (IMD) to as much as 187 (Transparency International and World Bank).

6.5. Exploratory Factor Analysis

Applying the exploratory factor analysis (EFA) provided by SPSS application version 21 and Principal Axis Factoring (PAF) method with Promax and Kaiser Normalization rotation and eigenvalue greater-than-one criteria, resulted in extraction of 7 factors which accounted for the total of 80% of the sum of square loading variances explained. The EFA reduced the number of variables from the original 77 to 32, see Table 6.5. The extracted factors reflect the elements of the proposed model. Factors in Table 6.5 are sorted by the percentage of variance extracted (VE%).

Table 6.5. Measurement Model

Factors	D	N	SL	CA	VE%	CR	AVE
<i>Social Sustainability</i>		12		0.91	45.71	0.95	0.87
Social Wellbeing (a)	SO1		1.023				
Individuals Using Internet (a)	SO2		0.999				
Improved Water Source(a)	SO3		0.897				
National IQ (a)	SO4		0.882				
Fixed Broadband Subscription (a)	SO5		0.865				
Env. Performance Index (a)	SO6		0.855				
Quality of National Index (a)	SO7		0.778				

Tourist Service Infrastructure (a)	SO8	0.747				
Gov. Effectiveness Index	SO9	0.740				
World Happiness (a)	SO10	0.724				
Global Competitiveness Report	SO11	0.702				
Internet Use for B2B	SO12	0.586				
<i>Destination Loyalty</i>		6	0.86	9.24	0.86	0.72
Digital Competitiveness (a)	LO1	0.920				
World Talent (a)	LO2	0.843				
Purchasing Power Index (a)	LO3	0.806				
Country Index	LO4	0.741				
Cost of Living Index (a)	LO5	0.739				
Nations Brand	LO6	0.697				
<i>Destination Awareness & Quality</i>		4	0.94	7.17	0.92	0.86
Effectiveness of Marketing	AQ1	0.983				
Sustainability of T&T (a)	AQ2	0.896				
Tourism Infrastructure	AQ3	0.873				
Prioritization of T&T (a)	AQ4	0.778				
<i>Destination Image1</i>		3	0.81	6.53		
Heritage (a)	IM1	0.888				
Cultural Influence (a)	IM2	0.815				
Adventurous (a)	IM3	0.786				
<i>Economic Sustainability</i>		3	0.83	4.61	0.83	0.71
Tourist Arrivals	EC1	0.855				
Tourist Expenditure	EC2	0.753				
Number of Int'l Assoc. Meetings (b)	EC3	0.657				
<i>Destination Image 2</i>		2				
Country Brand Strategy	IM4	0.975	0.27	3.57	0.95	0.90
Country Brand Rankings	IM5	0.897				
<i>Environmental Sustainability</i>		2				
Exponential Pollution Index	EN1	-0.864	0.91	3.11	0.99	0.99
Pollution Index	EN2	-0.858				

Total variance explained

79.93

D dimensions (AQ awareness& Quality, IM image, LO loyalty, SO social, EC economic, EN environmental); N number of extracted items; SL standardized loadings; CA Cronbach's alpha; VE variance explained; N number of variables after CFA; CR composite reliability; AVE average variance extracted; (a) items deleted after CFA; (b) dropped for better CA.

The Kaiser-Meyer-Olkin test of sampling adequacy of 0.84 is significantly above the threshold of 0.5, showing good internal consistency while Bartlett's Test of Sphericity is significant ($p < 0.001$) suggesting that data is suitable for the factor analysis (Field, 2009). The Cronbach's Alpha on standardized items of 0.937, is significantly above the threshold of 0.7 which confirms good internal reliability of data and pointing that the correlation matrix is

suitable for factor analysis. The eigenvalue greater-than-one criteria is applied for extracting the factors. All standardized loadings are greater than 0.5.

The first factor, which explains 45.7% of variance, is named “social sustainability” because it reflects social wellbeing, government effectiveness, happiness, intelligence among others (see Table 6.5., page 111). The 0.907 Cronbach’s Alpha suggests good internal reliability of the factor. The findings confirm the earlier research that social sustainability reflects the power, trust, cost and benefit (Nunkoo & Ramkissoon, 2011).

The second factor, marked as “destination loyalty”, accounts for 9.24% of the variances. It reflects tourists’ preference and emotional attachment to the destination. The 0.862 Cronbach’s Alpha indicates a very good level of internal reliability (see Table 6.5., page 111). The factor consists of six exogenous indicators such as country index and nations brand. The findings are consistent with the earlier research of destination loyalty which supports notion that loyalty is highly associated with the strength of the brand (Im et al., 2012).

Destination awareness and quality are extracted as one dimension. The factor accounts for 7.17% of the variances explained. There are four exogenous indicator variables in the factor. The impact on the awareness comes from the “effectiveness of marketing” variable. On the other hand, impact on quality comes from the sustainability, quality of infrastructure and prioritization of travel and tourism indicators. The 0.940 Cronbach’s Alpha shows very good internal reliability. The findings are in line with the earlier research literature and arguments.

The EFA produced two image variables which are extracted as the fourth and sixth factors. The fourth factor marked as “image 1”, accounts for 6.53% of the variances explained. The factor consists of the 3 exogenous indicator variables: “heritage”, “cultural influence” and “adventures”. All the variables are supported by the earlier research literature on tourism destinations. The Cronbach’s Alpha is 0.810 shows a very good internal reliability.

The fifth factor is marked as “economic sustainability” since it has variables related to “arrivals” and “tourists’ expenditure”. The factor accounts for 4.61% of the variances explained. Also, the factor has Cronbach’s Alpha of 0.830, which suggests good internal reliability. The third variable “number of association meetings” must be dropped for internal consistency issues (Table 6.5., p. 111). The structure of the factor is in line with the earlier research literature and arguments.

The sixth factor, which accounts for 3.57% of the variances explained, is marked as “image 2”. It has two variables “country brand strategy” and “country brand rankings”. The Cronbach’s Alpha of the factor is 0.27 indicates poor internal reliability. The factor should be used with caution in further analysis.

The seventh factor which accounts for 3.11% of the variances explained is denoted as “environmental sustainability” is formed by two variables “pollution” and “exponential pollution”. The factor has standard loadings of over 0.5 and Cronbach’s Alpha of 0.91 which shows a very good internal reliability for further analysis.

Overall, the total percentage of variances explained is 79.9%. Six out of seven factors have very good Cronbach’s Alfa measures, which shows that extracted data in EFA is suitable for goodness of fit analysis using CFA employed by AMOS software application.

6.6. Measurement Model

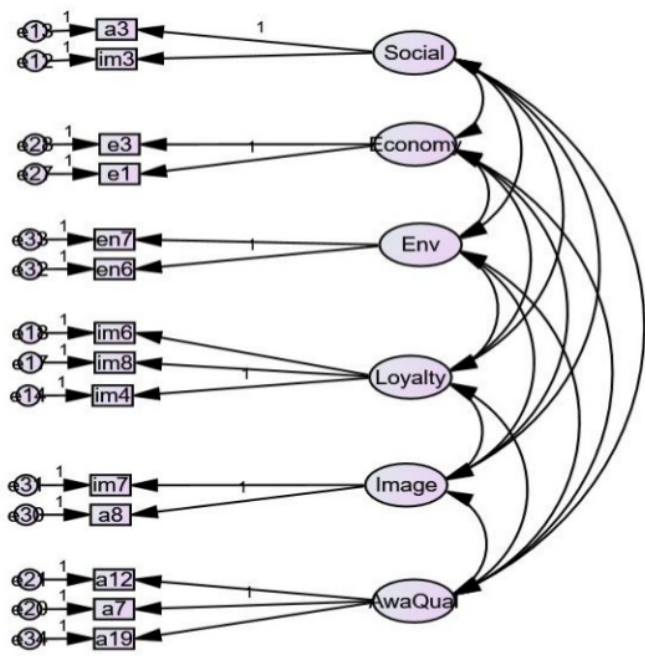


Figure 6.2. Measurement Model Global Case (AMOS, v.23)

Confirmatory factor analysis (CFA), conducted in AMOS, version 23 software package, further reduced the number of variables from 32 to 13 as a part of the empirical testing of the measurement model (Hair, et al., 2010), see Figure 6.2. The goodness-of-fit statistics shows that 81 parameters are within the recommending values (Table 6.6). Below is the diagram of the measurement model as presented in Table 6.6.

Table 6.6. Goodness-of-Fit Statistics

	Measurement indicator (Threshold Value)	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	1.815
p value	p value for the model	>0.05	0.000

1	GFI	Goodness-of-fit Index	>0.90	0.905
	AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.826
	SRMR	Standardized Root Mean Square Residual	<0.08	0.038
	CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.979
	TLI	Tucker-Lewis Index	>0.90	0.967
Parsimony-Adjusted Measures				
2	PCLOSE	P of close fit	>0.05	0.032
	RMSEA	Root Mean Square Error of Approximation		0.081
		<0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		

RV recommended value; SV statistical value;

Most of the fit statistics are above the recommended thresholds, see Table 6.6., p. 114. However, there are few exceptions. The p value is below the recommended value of 0.05. Since the p values are sensitive to the survey size it would be difficult to get p value higher than 0.0 (Brown, 2006). The standardized loadings are all above 0.5. The AGFI is slightly below the threshold as well as PCLOSE. The PCLOSE value of 0.032 is slightly below its minimum recommended value of 0.05. However, all other indexes are meeting the cut-off requirements suggesting a good fit between the estimated and proposed model (Hu & Bentler, 1998; Steenkamp & Baumgartner, 2000).

The correlations matrix in Table 6.7. suggests no multicollinearity. The matrix shows poor correlation between destination image and social sustainability element. However, the poor correlation doesn't mean that causality between them is poor. It is important to mention that correlation suggest similarity for any reason but not causality (dependency). Most likely, the statistical position of both elements are influenced by other factors. The causality relationship will be proved in SME or path analysis later in the chapter. So, the only conclusion is that social and image element are quite different from each other in the global case.

Table 6.7. Component Correlation Matrix

Component	Economic	Social	Loyalty	AwaQuality	Image	Environmental
Economic	0.846					
Social	0.647	0.933				
Loyalty	0.361	0.521	0.848			
AwaQuality	0.492	0.233	0.351	0.925		
Image	0.276	0.072	0.366	0.312	0.949	
Environmental	-0.231	-0.539	-0.554	-0.361	-0.186	0.998

Values in bold show square root of AVE on the diagonal levels; Non-diagonal values show correlations between model elements produced by Principal Component Analysis with Promax and Kaiser Normalization rotation using AMOS; AwaQuality destination awareness & quality.

The reliability, discriminant and convergent validity are confirmed, as shown in Table 6.8., on page 116. Composite reliability (CR) shows an acceptable range (CR>0.7) between 0.833 and 0.999, suggesting a good internal consistency of data. Convergent validity is analyzed by average variance extracted index (AVE), which shows values between 0.998 and 0.715 which is greater than 0.5 threshold (Hair et al., 2010). The discriminant validity is confirmed based on the measurement of maximum shared variance (MSV) and average shared

variance (AVE). For all constructs the ASV is lower than MSV which confirms discriminant validity.

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Table 6.8. Reliability, Convergent and Discriminatory Validity Matrix

	CR	AVE	MSV	ASV
Economic	0.833	0.715	0.419	0.184
Social	0.952	0.870	0.551	0.358
Loyalty	0.835	0.719	0.551	0.284
Awareness & Quality	0.922	0.856	0.404	0.250
Image	0.947	0.901	0.137	0.073
22 nvironmental	0.999	0.998	0.307	0.154

CR composite reliability; AVE average variance extracted; MSV maximum shared variance; ASV averaged shared variance; Awareness & Quality destination awareness & quality.

6.7. Structure Equation Modeling -Path Analysis

After the CFA confirmed the model-fit of the proposed model (Table 6.5., p.111), the next step is to evaluate the causal (hypothesized) relationships within the proposed model. Structural equation modelling (SEM) or path model analysis, is considered for evaluation of the causal relationships among the dimensions of the proposed model. The findings are used to test the proposed hypotheses. The analysis is performed in AMOS, version 23, software package on the output data from the goodness-of-fit analysis.

In the following analysis, to highlight the impact of the individual elements of the destination sustainability on the elements of destination brand equity, the thesis evaluates three SEM scenarios for each social, environmental and economic element in the role of a predictor (exogenous) construct.

In the Scenario 1 the estimated model, consists of the six dimensions with social sustainability as the predictor element, environmental sustainability, economic sustainability, destination loyalty, destination image and, destination awareness and quality, Figure 6.3, p. 117. The latter is a joint construct that represents destination awareness and destination quality as one dimension. The predictor element is one that acts as the independent exogenous variable that predicts value of other constructs in the model. This is in line with previously adopted hypotheses: H4, H5, H7, H10, H11, H12and H13.

The estimated model shows that social sustainability element is the most dominant as it impacts all other elements in the model. The impact of the social element is most obvious on destination loyalty (0.65) and economic sustainability 0.65).

All path estimates shown in Figure 6.3, page 117, are all statistically significant at p values lower than 0.001 and 0.05, except for the environmental sustainability to destination loyalty relation (H14) which is not significant at $p < 0.08$ probability. The path analysis, shown in Figure 6.3, page 117, confirms seven hypothesized relations and fully confirms the goodness-of-fit criteria for good model fit, as shown in Table 6.9., p. 117.

6.7.1. Scenario 1: Social Sustainability Construct as Predictor

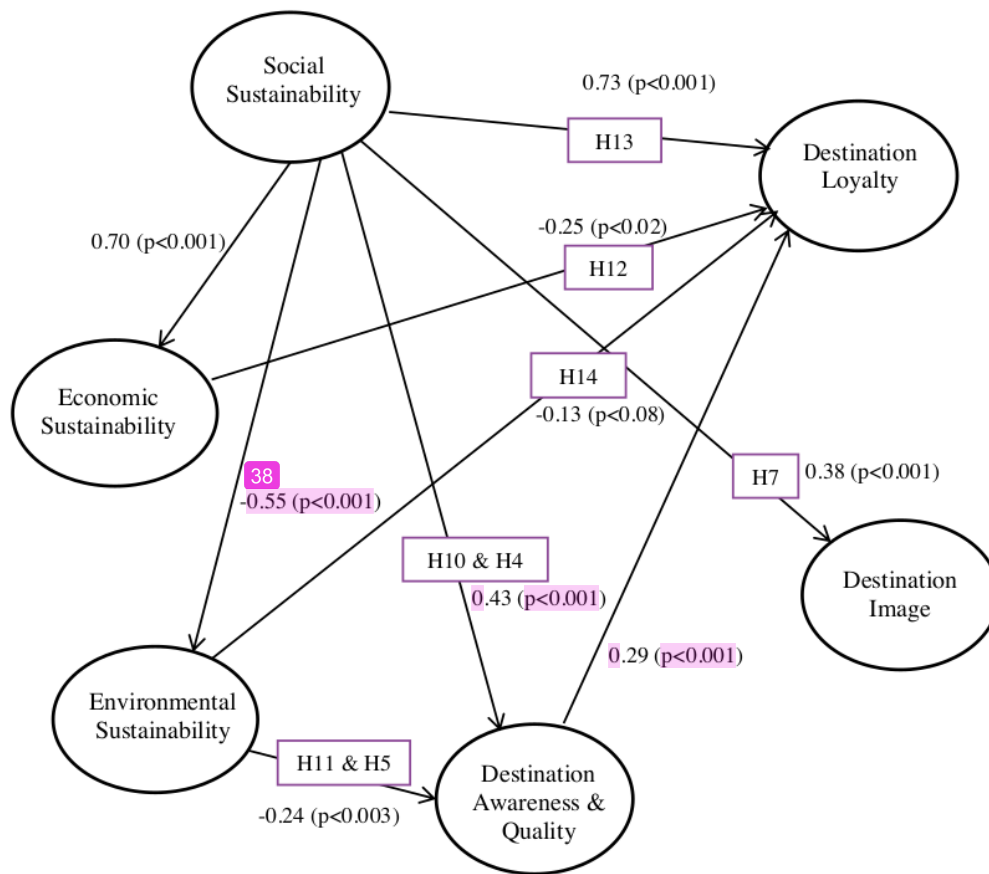


Figure 6.3 Social Sustainability Construct as Predictor

Table 6.9. Goodness-of-Fit Statistics Global Case

	Measurement indicator (Threshold Value)	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	1.698
p	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.884
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.826
SRMR	Standardized Root Mean Square Residual	<0.08	0.054
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.971

TLI	Tucker-Lewis Index	>0.90	0.962
Parsimony-Adjusted Measures			
PCLOSE	P of close fit	>0.05	0.043
RMSEA	Root Mean Square Error of Approximation		0.075
	<0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		

RV recommended value; SV statistical value

The goodness of fit statistics in Table 6.9., p117, shows good overall measure seven though not all indexes satisfy fully the recommended thresholds. There are good values of SRMR, CFI, TLI, CMIN and RMSEA³⁰. Also, GFI, AGFI, PCLOSE are all close to the recommended threshold values. The p values are highly dependent on the sample size; therefore, it is difficult to get recommended values of over 0.05.

The path analysis in Figure 6.3, on page 117, confirms findings in the research literature, that social dimension has significant influence on the destination brand equity dimensions (Nunkoo & Ramkinssoon, 2011; Andereck et al., 2011; Ward & Berno, 2011; Latkova & Vogt, 2012). The path analysis shows statistically significant relations with destination sustainability, destination image, destination awareness and destination quality, capturing the essence of the thesis that destination sustainability has positive impact on destination brand equity (H1) and, consequently, that any development of the tourism destination, including development of destination brand equity is done under the umbrella of social sustainability, therefore, contributing to confirming hypothesis (H2). Since this thesis uses historical data in the statistical analysis, the thesis confirms that these two processes, sustainability development and destination brand equity development which are taking place as parallel activities are inseparable and highly correlated.

Furthermore, the path analysis could not confirm the statistically significant relationship between economic sustainability element and the destination image, economic sustainability and joint construct of destination awareness and destination quality, and economic sustainability and environmental sustainability. Also, the path analysis in Figure 6.3 on page 117, doesn't confirm any indirect effects of environmental sustainability on destination image, awareness and quality dimensions. On the other hand, the path analysis shows that economic sustainability has statistically significant relationships with destination loyalty.

The model in Figure 6.3. on page 117, shows that social element has direct impact on destination loyalty, destination image and joint construct of destination awareness and quality. Also, the model shows mediating effect that social construct has on destination loyalty. This indicates a strong relationship between social construct and brand equity as loyalty element is the outcome of the attitudinal and behavioral outcome strongly influenced by other elements of the brand equity.

Next, environmental sustainability shows moderate statistically significant relations with destination awareness and quality. Since environmental sustainability dimension is defined by two independent variables "pollution" and "exponential pollution" the standardized estimates are negative, confirming that more pollution makes destination less attractive. Also, economic construct shows impact on destination loyalty confirming the findings in the research literature (Iniesta-Bonillo et al., 2016; Cottrell et al., 2013). Both environmental and economic impact

are result of the moderating effect, since both elements are first influenced by social element as depicted in the model.

Finally, we can summarize the structural parameter estimates for each of the hypothesized relations in Table 6.10.

Table 6.10. Structural Weight Estimates for Social Case

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H4: Soc → Awa	0.017	0.436	0.004	4.731
H5: Env → Awa	-0.011	0.44	0.004	-2.921
H7: Soc → Im	0.218	0.383	0.046	4.724
H10: Soc → Qu	0.017	0.436	0.004	4.731
H11: Env → Qu	-0.011	-0.244	0.004	-2.930
H12: Eco → Lo	0.000	-0.203	0.000	-2.050
H13: Soc → Lo	0.055	0.647	0.011	5.201

SUS sustainability; BE brand equity, Aw destination awareness; Im destination image; Qu destination quality; Lo destination loyalty; Eco economic sustainability; Env environmental sustainability; Soc social sustainability

6.7.2. Scenario 2: Environmental Construct as Predictor

The path analysis in Figure 6.3, page 117, and Table 6.10 has statistically confirmed seven relations and established a common base for confirming H1 and H2 hypotheses later in the study. All seven confirmed paths a statistically significant. Therefore, based on the global data the constructs in the proposed model can be empirically considered as valid, reliable and acceptable.

In the second scenario, environmental construct is a predictor or exogenous independent variable that predicts all other constructs in the model shown in Figure 6.4, page 120. The number and type of constructs are the same as in Figure 6.3., on page 117, except for the hypothesized relationships H4, H5, H8, H10, H11, H12 and H13. In this scenario, environmental sustainability construct shows impact on the joint element of destination awareness and quality and the element of destination image, while it shows indirect impact on destination loyalty via social sustainability and economic sustainability construct both serving as moderators.

All path estimates shown in Figure 6.4., page 120, are all statistically significant at p values lower than 0.001 and 0.05 and confirms seven hypothesized relations. Also, the analysis confirms acceptable goodness-of-fit criteria as shown in Table 6.11., p.120.

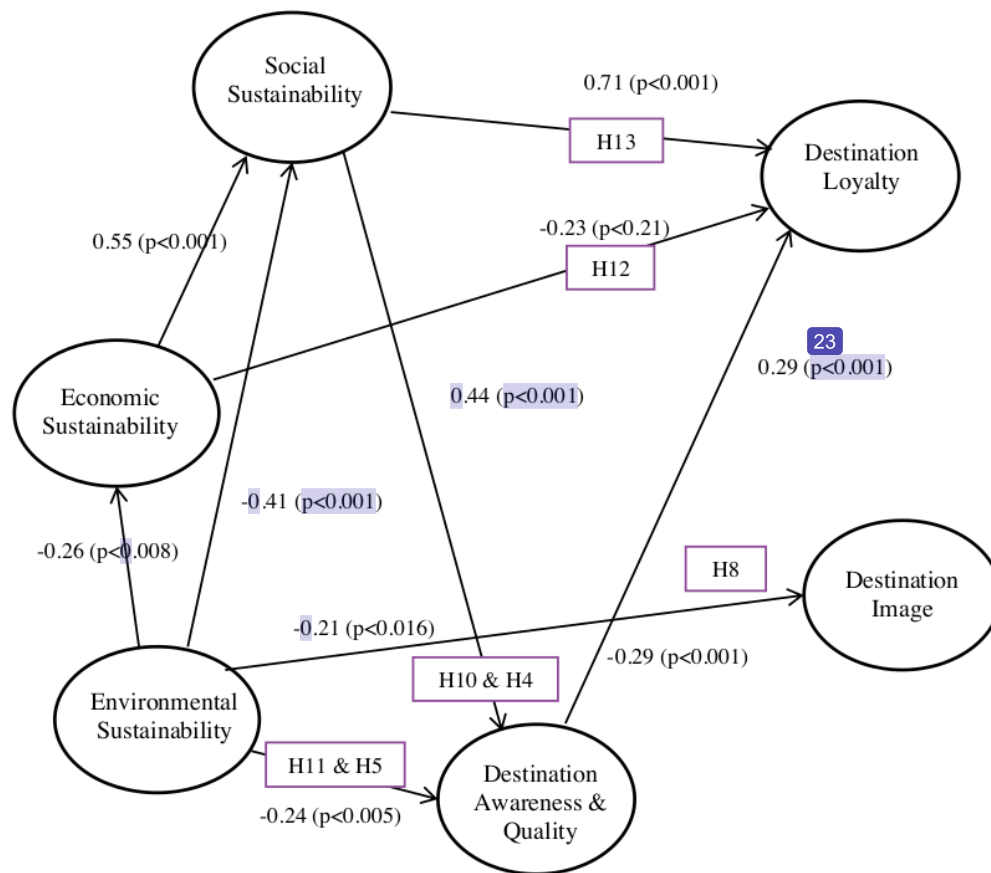


Figure 6.4. Environmental Construct as Predictor

Table 6.11. Goodness-of-Fit Statistics Global Case

	Measurement Indicator (Threshold Value)	Recommended Value	Statistical Value
CMIN	Chi-square/df ⁶ <3 good; <5 sometimes permissible	<3	2.093
¹ value	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.880
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.805
SRMR	Standardized Root Mean Square Residual	< ⁹ 0.08	0.090
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.968
TLI	Tucker-Lewis Index	>0.90	0.956
⁴ CLOSE	P of close fit	>0.05	0.002
RMSEA	Root Mean Square Error of Approximation <0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		0.094

The goodness of fit statistics in Table 6.11., p. 120, shows acceptable overall measures even though not all indexes satisfy fully the recommended thresholds. There are good values for CMIN, CFI, TLI, and RMSEA. GFI and AGFI are on the borderline while SRMR, and PCLOSE are not meeting the threshold values. The p values are highly dependent on the sample size; therefore, it is difficult to get recommended values of over 0.05.

The path analysis in Figure 6.4, on page 120, confirms findings in the research literature, that environmental dimension has significant influence on the destination brand equity dimensions (Nunkoo & Ramkinsoon, 2011; Andereck et al., 2011; Ward & Berno, 2011; Latkova & Vogt, 2012).

The path analysis shows direct impact of the economic element on destination image, awareness and quality constructs. Also, indirect impact of economic sustainability is evident on destination loyalty construct using social sustainability, economic sustainability, and destination awareness and quality constructs as mediators.

Therefore, the path analysis shows significant direct and indirect (mediating) impact of economic sustainability on the elements of destination brand equity. In that sense it contributes to the confirmation of the H1 hypothesis. Also, the statistically significant relationship between economic sustainability element with destination image, awareness and quality supports the H2 hypothesis.

Finally, we can summarize the structural parameter estimates for each of the hypothesized relations in Table 6.12.

Table 6.12. Structural Weight Estimates for Environmental Case

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H4: Soc → Aw	0,17	0.443	0.004	4.792
H5: Env → Aw	-0.011	-0.235	0.004	-2.823
H8: Env → Im	-0.137	-0.210	0.057	5.525
H10: Soc → Qu	0.017	0.443	0.004	4.792
H11: Env → Qu	-0.011	-0.235	0.004	-2.823
H12: Eco → Lo	0.000	-0.231	0.000	-2.309
H13: Soc → Lo	0.059	0.713	0.011	5.525

Aw destination awareness; Im destination image; Qu destination quality; Lo destination loyalty; Eco economic sustainability; Env environmental sustainability; Soc social sustainability

The path analysis in Figure 6.4, page 120, and Table 6.12 has statistically confirmed seven relations and has established a common base for confirming H1 and H2 hypotheses later in the study. All seven confirmed paths are statistically significant. Therefore, based on the global data the constructs in the proposed model can be empirically considered as valid, reliable and acceptable.

6.7.3. Scenario 3: Economic Construct as Predictor

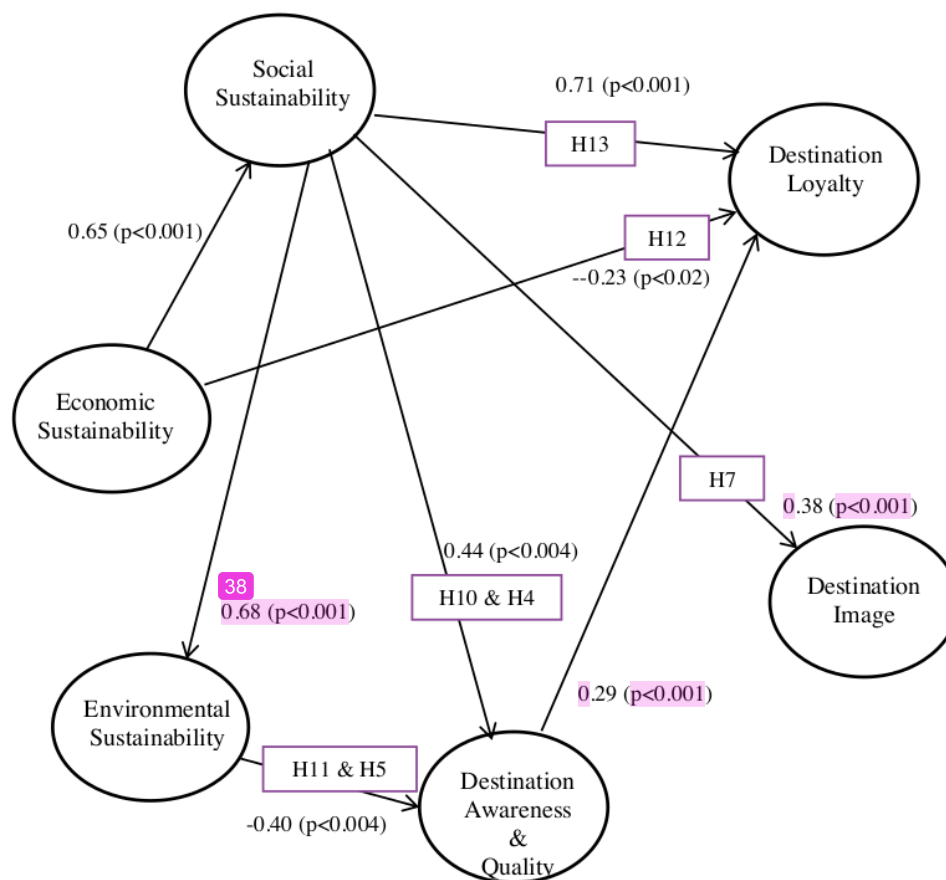


Figure 6.5. Economic Construct as Predictor

In the third scenario, economic construct is a predictor or exogenous independent variable that predicts all other constructs in the model shown in Figure 6.5. The number and type of constructs are the same as in previous two scenarios. The analysis confirms the hypothesized relationships H5, H7, H10, H11, H12 and H13.

All path estimates shown in Figure 6.5 are statistically significant at p values lower than 0.001 and 0.05. The path analysis confirms seven hypothesized relations. Also, the path analysis confirms acceptable goodness-of-fit criteria as shown in Table 6.13., p. 123.

Table 6.13. Goodness-of-Fit Statistics Global Case

	Measurement Indicator (Threshold Value)	Recommended Value	Statistical Value
CMIN/DF	Chi-square/df <3 good; <5 sometimes permissible	<3	1..817
p value	p value for the model	>0.05	0.0
GFI	Goodness-of-fit Index	>0.90	0.894
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.831
SRMR	Standardized Root Mean Square Residual	<0.08	0.05
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.976
TLI	Tucker-Lewis Index	>0.90	0.967
PCLOSE	P of close fit	>0.05	0.024
RMSEA	Root Mean Square Error of Approximation <0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		0.81

The goodness of fit statistics in Table 6.13 shows good overall measures even though not all indexes satisfy fully the recommended thresholds. There are good values of SRMR, CFI, TLI, CMIN/DF and RMSEA. GFI is at the borderline while AGFI and PCLOSE are all very close to the recommended threshold values. The p values are highly dependent on the sample size making it difficult to get recommended values of over 0.05.

The path analysis in Figure 6.5 on page 122, confirms findings in the research literature, that economic sustainability dimension influences elements of destination brand equity (Iniesta-Bonillo et al., 2016; Cottrell et al., 2013; Font & McCabe, 2017; Kim et al., 2017; Moise et al., 2019).

The analysis outlined in Figure 6.5, page 122, shows direct and indirect impact of economic sustainability on the elements of destination brand equity. Direct impact is on destination loyalty while indirect impact is on destination image, awareness, and quality. Direct impact creates negative response from destination loyalty suggesting that economic elements alone are not enough to lift interest of the potential tourist to visit, revisit, pay premium and spread the positive word about a destination. Further implications are that economic element must first initiate positive change in the social element which, in turn, will positively affect change the destination loyalty.

Finally, we can summarize the structural parameter estimates for each of the hypothesized relations in Table 6.14.

Table 6.14. Structural Weight Estimates for Economic Case

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H4: Soc → Aw	0.017	0.44	0.004	4.738

H5: Env → Aw	-0.011	-0.24	0.004	-2.884
H7: Soc → Im	0.218	0.38	0.046	4.727
H10: Soc → Qu	0.017	0.44	0.004	4.738
H11: Env → Qu	-0.011	-0.24	0.004	-2.884
H12: Eco → Lo	0.000	-0.23	0.000	-2.270
H13: Soc → Lo	0.059	0.71	0.011	5.545

Aw destination awareness; Im destination image; Qu destination quality; Lo destination loyalty; Eco economic sustainability; Env environmental sustainability; Soc social sustainability

The path analysis in Figure 6.5., page 122, and Table 6.14., p. 123, has statistically confirmed seven relations and has established a common base for confirming H1 and H2 hypotheses later in the study. All seven confirmed paths are statistically significant. Therefore, based on the global data the constructs in the proposed model can be empirically considered as valid, reliable and acceptable.

6.8. Second-Order Structural Equation Model Analysis

6.8.1. Impact of Destination Sustainability on Elements of Destination Brand Equity

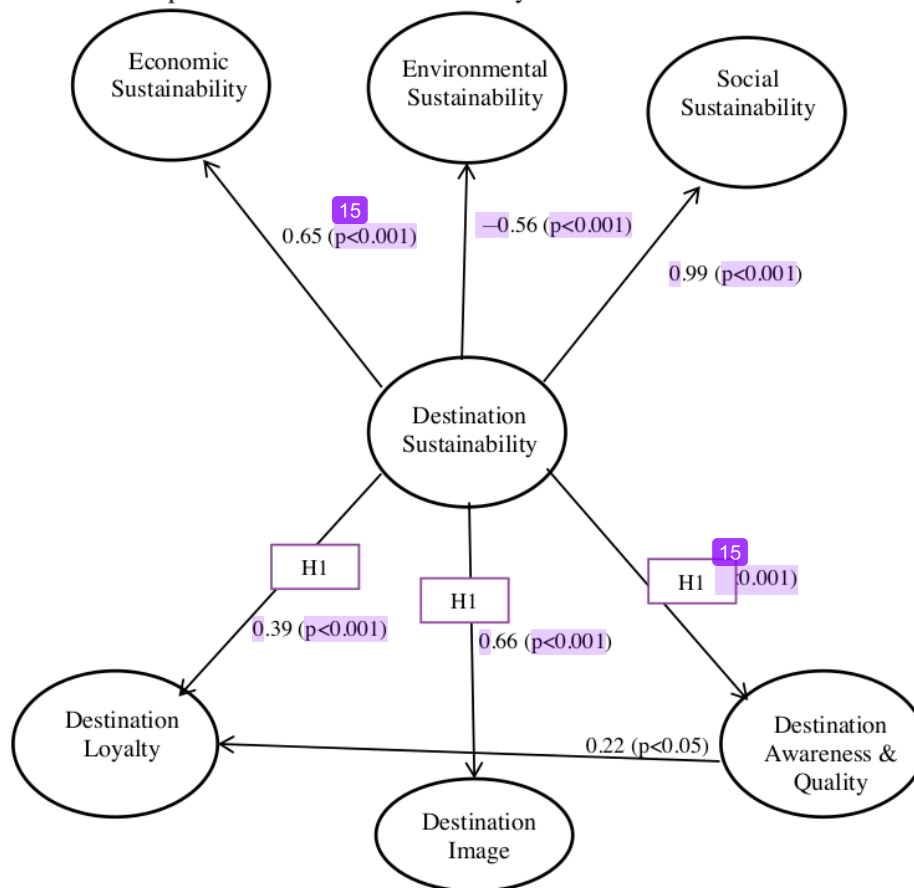


Figure 6.6. Second-Order Path Analysis: Sustainability

The path analysis in Figure 6.3, 6.4 and 6.5, show high correlations between the factors of destination brand equity (awareness, loyalty, quality, and image). Also, the same analysis shows high correlations between the isolated factors of destination sustainability (social, economic, and environmental).

In the scenarios when lower-order elements are significantly correlated there is a possibility of the existence of the higher-order factor or factors (Byrne, Baron, Larsson, & Melin, 1995; Konecnik & Gartner, 2007). The path analysis in Figure 6.6, page 124, considers destination sustainability as a higher-order factors consisting of social and economic sustainability.

The path analysis shows that destination sustainability dimension has significant impact on the elements of destination brand equity. The impact is clear on destination loyalty, image and on joint part of destination awareness and quality. The strongest impact of sustainability is on the destination image 0.66 and awareness and quality factor with standardized weight estimates of 0.60. In practical terms, if sustainability goes up by 1.0 the joint awareness and quality factor goes up by 0.60.

Table 6.15. Goodness-of-Fit Statistics

	Measurement indicator (Threshold Value)	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	1.902
p value	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.886
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.822
SRMR	Standardized Root Mean Square Residual	<0.08	0.043
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.973
TLI	Tucker-Lewis Index	>0.90	0.963
Parsimony-Adjusted Measures			
PCLOSE	P of close fit	>0.05	0.011
RMSEA	Root Mean Square Error of Approximation		0.086
	<0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		

RV recommended value; SV statistical value

The goodness-of-fit measurements shows acceptable statistical levels. GFI of 0.886 and AGFI of 0.850 came close to 0.90 threshold, p value of 0.00 came below the recommended value of 0.05, and PCLOSE of 0.011 is below the recommended value of 0.05. All other indexes, including RMSEA (0.086), are meeting the recommended values (Table 6.15), suggesting a very good model fit between proposed and estimated model (Hu & Bentler, 1998; Steenkamp & Baumgartner, 2000).

The correlations matrix in Table 6.16. suggests no multicollinearity.

Table 6.16. Component Correlation Matrix

Component	Loyalty	Sustainability	A&Q	Image
Loyalty	0.849			
Sustainability	0.705	0.865		
A&Q	0.617	0.597	0.924	
Image	0.228	0.343	0.310	0.950

Values in bold show AVE levels; Non-diagonal values show correlations between model elements produced by Principal Component Analysis with Promax and Kaiser Normalization rotation using AMOS; A&Q destination awareness & quality.

The reliability, discriminant and convergent validity are confirmed, as shown in Table 6.17. Composite reliability (CR) shows an acceptable range ($CR > 0.7$) between 0.836 and 0.948, suggesting a good internal consistency of data. Convergent validity is analyzed by average variance extracted in ²⁰ (AVE), which shows values between 0.903 and 0.749 which is greater than 0.5 threshold (Hair et al., 2010). The discriminant validity is confirmed based on the measurement of maximum shared variance (MSV) and average shared variance (AVE). For all constructs the ASV is lower than MSV which confirms discriminant validity (Hair et al., 2010).

¹⁶
Table 6.17. Reliability, Convergent and Discriminatory Validity Matrix

	CR	AVE	MSV	ASV
Loyalty	0.836	0.772	0.497	0.310
Sustainability	0.848	0.749	0.497	0.284
A&Q	0.921	0.854	0.381	0.278
58 Image	0.948	0.903	0.096	0.049

CR composite reliability; AVE average variance extracted; MSV maximum shared variance; ASV averaged shared variance; A&Q destination awareness & quality.

6.8.2. Impact of Destination Sustainability on Destination Brand Equity

In the second scenario, using the same data, the path analysis is conducted on the model with two second-order factors: destination sustainability and destination brand equity, see Figure 6.7., page 127.

The higher order destination sustainability factor is loaded with three latent variables: social, environmental and economic sustainability. All estimated weight loadings are over the absolute value of 0.5, Figure 6.7., page 130. Similarly, higher order destination brand equity is loaded with three latent variables: destination loyalty, image and a joint variable of awareness and quality. All standardized estimated weights exceed absolute value of 0.5 except for the image which shows standardized estimated weight factor of 0.41.

The path analysis shows statistically significant impact of destination sustainability on destination brand equity with standardized weight estimates of 0.92. In the path analysis standardized weight estimates between exogenous variables are identical to correlation values. This suggests that both constructs move in the same direction at about same intensity. The

implication of findings in the path analysis are the similarities between the two development processes.

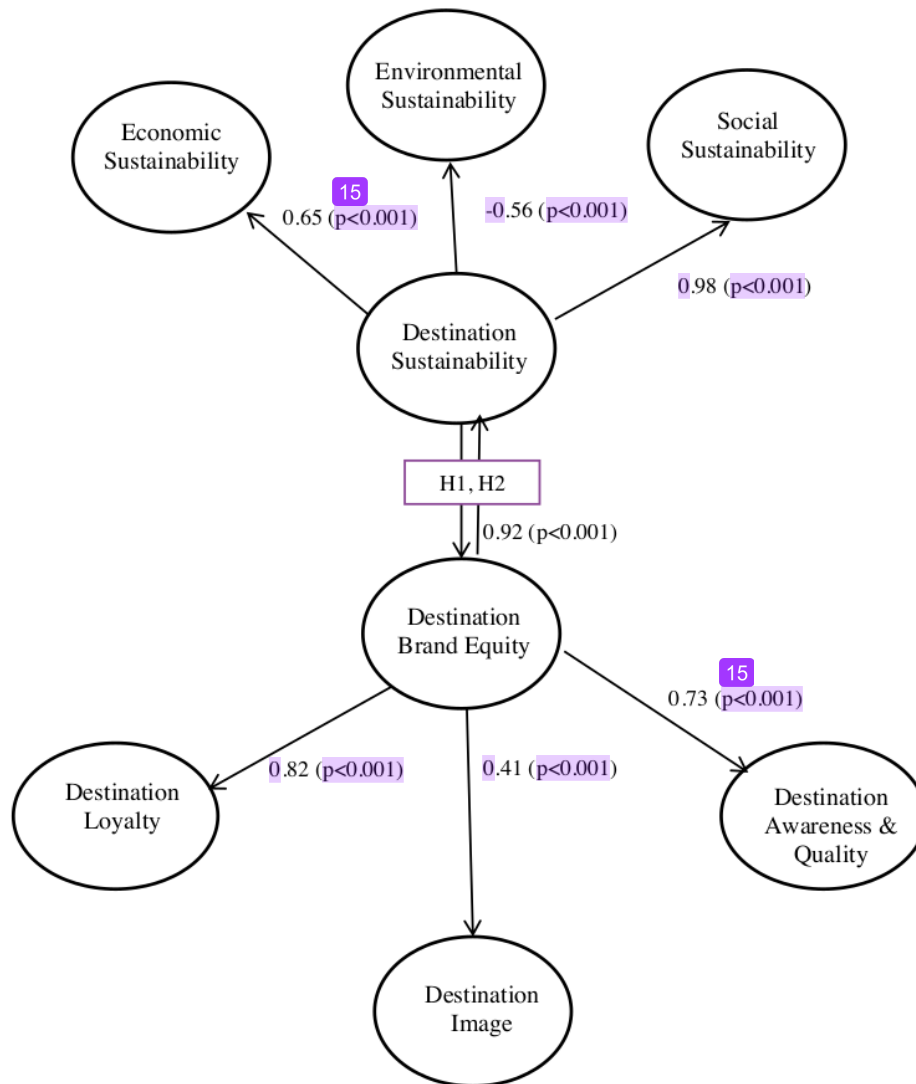


Figure 6.7. Two Second-Order Factors: Destination Sustainability and Brand Equity

The path analysis confirms high standardized weight estimate (0.92) between sustainability and brand equity suggesting high level of causality. Also, the sign that two constructs are moving in the same direction and with the same intensity confirm the H2

hypothesis that destination sustainability and destination brand equity are two similar processes and, could be considered as one, in the long run.

Table 6.18. Goodness-of-Fit Statistics

	Measurement indicator (Threshold Value)	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	1.928
p value	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.886
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.821
SRMR	Standardized Root Mean Square Residual	<0.08	0.049
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.972
TLI	Tucker-Lewis Index	>0.90	0.962
Parsimony-Adjusted Measures			
PCLOSE	P of close fit	>0.05	0.009
RMSEA	Root Mean Square Error of Approximation <0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		0.087

RV recommended value; SV statistical value;

Goodness-of-fit statistics, in Table 6.18, shows that five out of nine indicators are meeting the recommended values. The p value is 0.0 which is below the recommended value of 0.05. The GFI of 0.886 is close to the threshold value of 0.90, so the index can be accepted. Also, the AGFI of 0.821 is close to the threshold value of 0.90 while PCLOSE of 0.009 is significantly below the threshold value of 0.05. Despite that few indexes are below the threshold values, most of the indexes meet or are close to the recommended values, hence, justifying the acceptance of the results (Hu & Bentler, 1998; Steenkamp & Baumgartner, 2000).

Finally, the summary of the structural parameter estimates for each of the hypothesized relations is shown in Table 6.19.

Table 6.19. Structural Weight Estimates for H1 and H2

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H1: SUS → Aw	0.704	0.624	0.120	5.854
H1: SUS → Im	6.141	0.369	1.450	4.236
H1: SUS → Qu	0.704	0.624	0.120	5.854
H1: SUS → Lo	1.364	0.548	.330	4.127
H1: SUS → BE	0.777	0.918	0.120	6.450
H2: SUS → BE	0.777	0.918	0.120	6.450

SUS destination sustainability; BE destination brand equity; Aw destination awareness; Im destination image; Qu destination quality; Lo destination loyalty.

The path analysis in Figure 6.6, page 124, and Figure 6.7., page 127, statistically confirms H1 and H2 hypothesis, Table 6.15., p. 125. Considering seven previously confirmed paths in Figure 6.5., page 122, we can conclude that the proposed model constructs, based on global data, is empirically proved as valid, reliable and acceptable.

7. CASE OF SERBIA

This chapter explores hypothesized relationships between the elements of destination sustainability and the elements of destination brand equity. It shows in detail the EFA, CFA and SEM analysis on the data from a case of Serbia. The estimated relations are confirmed and compared with the predicted model.

First, tourism landscape of Serbia, is highlighted to show a historical, cultural and hereditary background for the case.

Second, the chapter explains how the data for the analysis are collected from the foreign tourists. The chapter explains the formation of the research instrument, operationalization of the research questions, measurement scale and the reliability, convergent and discriminatory validity of the data.

Further, different research and model estimation scenarios are presented to confirm the proposed hypotheses. The goodness-of-fit analysis is confirmed using confirmatory factor analysis while hypotheses are tested using structural equation modeling technique. Finally, the outlined hypotheses are tested, and the overall conclusion of the results is explained. The research instrument for the case of Serbia is presented. Finally, the exploratory study is conducted to confirm the elements of the destination sustainability and destination brand equity constructs of the case of Serbia. Further, the proposed model is measured up against the estimated model for the final confirmation.

7.1. Case of Serbia

In the case of Serbia scenario, all constructs and relations of the global model, presented earlier in chapter 6, are repeated on the data from the case of Serbia. The survey on Serbia is conducted exclusively on the foreign tourists, who are visiting Belgrade, the capital and the most popular tourism destination in Serbia.

Because each country is unique and has a distinct set of tangible and intangible characteristics, the intent of the thesis is to show statistically significant similarity with the global model, not the exact match.

Serbia is a former republic of Yugoslavia, located in the western part of the Balkan region. According to WTTC (2018), Serbian tourism²⁵ was 6.7% of the GDP (direct and indirect contributions) in 2017, contributing 7.1% of the total exports, and generated 96,500 jobs (direct and indirect) which is 4.9% of the total employment.

In 2017, direct contributions to the GDP reached 2.3%, tourism generated 1.9% of the country's employment and created some 37,000 jobs. Statistical Yearbook of the Republic of Serbia (Statistical Yearbook, 2019) reported for 2018, 1.7 million foreign and about the same number of domestic tourists. Overnights reached 9.3 million with 39% related to the domestic tourists. WTTC (2018) reported that foreign tourists spent 64% of the total expenditure for 2018. Mountain resorts and spas were the most popular with bed overnight utilization of 50%. Domestic tourists expressed preference for spas and mountain resorts with overnight occupancy of 39% and 32% respectfully. In 2017, the size of the total tourism market in Serbia was about €1.2 billion euros (Statistical Yearbook, 2019). Government's voucher program, which started

in the recent years, have significantly contributed to the increase in domestic tourism in Serbia (Ministry of Trade, Tourism and Telecommunications, [MTTT], 2016).

Serbia was placed by the Travel and Tourism Competitiveness Index (Calderwood & Soshkin, 2019) 83rd among 140 countries. Well in front of Serbia are Croatia (27), Slovenia (36), Bulgaria (45), Romania (56), and Montenegro (67). Only Albania (86), North Macedonia (101), Moldova (103), and Bosnia and Herzegovina (105) are behind the 25th Serbia. The report points weakness of Serbia in several areas but most importantly in air connectivity, international openness and investments in cultural resources (Crotti & Misrahi, 2017). According to Calderwood & Soshkin (2019), Serbia shows moderate performance in enabling environment and T&T policy while falls behind on infrastructure and natural and cultural resources.

Nordin, (2005) and Yeoman (2012) evaluate tourism in Serbia through the prism of environmental, demographic, political, social and economic aspects. Dwyer's et al. (2014) considers these aspects as crucial for the competitiveness of every destination. Serbia has a lot of room for improvement, in particular in the infrastructure, laws and destination management. Also, Serbia needs to pay attention to avoid "strategic drift" to circumvent deterioration of its competitive advantage (Dwyer & Edwards, 2009).

Customer needs and value creation are part of the competitive advantage of a destination which Serbia should recognize and implement into its tourism development strategy. Serbia's tangible and intangible tourism resources are well recognized (MTTT, 2016). At the moment, there is a room for improvement in the areas of legal structure, investments, infrastructure, social and environmental laws and research. Tourism potential of Serbia lays in attractions around and in the capital of Belgrade, mountains, monasteries, spas, rural areas, rivers and archeological sites.

7.2. Scale Development: Operationalization of the Model

The survey "of the case of Serbia" includes measures of eight perceived dimensions, social, economic, socio-economic, environmental, awareness, image, quality and loyalty. Design of the case of Serbia survey instrument is intended to facilitate measuring the relationships between the elements of the proposed model. The goal is to cross-validate the findings in the global case as well as to reveal other interesting outcomes. The survey is specifically intended to analyze perception of the international tourists who are visiting Belgrade, regardless of any previous experience with Serbia and its destinations. The focus of the survey is on the tourists who visited Belgrade, since it is the most visited Serbian destination by international travelers.

Belgrade as a tourist destination represents more than just a local destination. In general, it represents a regional destination. In this thesis, Belgrade is chosen as a subject for analysis because it is the first and the most frequently visited destination by foreign tourists during their visit, travel and stay in Serbia. This become more obvious when the location and traffic hub are taken into consideration (main airport, administrative center and the most developed tourist destination in Serbia). Belgrade generates most of the revenue of tourism in Serbia since it is the most popular destination to arrive or to use as a hub for different trips to other parts of

Serbia. Uneven development of tourism in Serbia makes Belgrade even more attractive for foreign tourists. Because of the significant contribution of Belgrade to the overall tourism experience in Serbia, Belgrade is considered as viable representative of the Serbian tourism and is used as a proxy for Serbia for analysis in this study. This is a common practice in the scientific literature to select a specific destination within a country to test and cross-validate the theory (Martín, Herrero, & Salmones, 2018; Gusoy et al., 2010; Donner & Fort, 2018). This is further supported by the official data on Serbian tourism. According to Statistical Yearbook (2019), in 2018, 57% of the foreign tourists who came to Serbia visited Belgrade and accounted for 55% of foreign tourists' overnights. Since statistical data show that majority of tourists who travel to Serbia gravitate towards Belgrade, this thesis supports Belgrade to represent Serbia as a destination.

The main survey was divided into the eight groups of questions that describe the corresponding constructs of the model shown in Figure 7.1, page 134. Those groups or constructs are, economic, social, socio-economic, environmental, awareness, image, quality and loyalty. Since the constructs are latent variables, they are difficult to measure (observe) directly. Therefore, the multivariate analysis suggests using suitable proxy observable variables to indirectly define each construct. The multivariate analysis tests the reliability and validity of the goodness-of-fit of the survey data, which if proved as reliable and valid, the focus shifts towards examining causal relations between the dimensions (constructs) of the model which leads to hypotheses testing.

Economic destination dimension is measured using three-item scale. The eleven-point Likert scale is applied (Tasci, 2018). The proposed proxy observable variables measure of the perception of tourists related to investments in tourism, infrastructure and making money from tourism, Figure 7.1., page 134. Accordingly, the economic element of sustainability infers generating optimal output with objective to sustain a good standard of living with the boundaries of the existing capital and meeting economic needs of the population (Mbaiwa, 2005). The research question items in the research instrument are formulated based on the previous research literature (Iniesta-Bonillo et al., 2016; Andereck & Vogt, 2000), see Figure 7.1., p 134.

Social destination dimension is rated by the five-item scale on an eleven-point Likert-type scale from 0 (i.e. absolutely no) to 10 (absolutely yes). Since it would be difficult to directly measure unobservable social variables, as suggested by the social exchange theory: trust, power, benefits and costs, the thesis adopts, based on the literature review, the following observable proxy metrics: staff friendliness, behavior of tourists, and feeling safe (Chekalina et al., 2016; Konecnik & Gartner, 2007). See Figure 7.1., p 134. The proxy variable "feeling safe" corresponds to trust and power since it reflects law enforcement structure and the effectiveness of the local governance of a destination. The remaining two variables "staff friendliness" and "behavior of tourist" are supported by the literature as shown in Table 7.1., page 134. All items are conceptualized as statements and ranked at the eleven-point Likert agreement scale from 0 (absolutely no) to 10 (absolutely yes). See Figure 7.1., p 134.

Socio-economic element is rated by the 2-item scale on an eleven-point Likert type scale from 0 (i.e. absolutely no) to 10 (absolutely yes) as supported by Tasci (2018). The element is defined by two proxy variables "reasonable prices" and "value-for-money" which factor analysis (SPSS) confirmed as one construct, see Figure 7.4., p 154.

Aaker (1996) and Sweeney & Soutar (2001) suggested that value can be measured by interviewing tourists if the choice of the brand offers good value for the money. Similarly, Zeithaml, (1988) considers value-for-money as a functional value that is formed by quality and price. Also, Sanchez, et al., (2006) and Williams & Soutar (2009) proposed a scale for measuring post-purchase perceived value in tourism. The same authors suggest that the service quality (benefit) and price are affective perceived value and, therefore, belong to emotional and social value.

Boo et al. (2009) tested “judgements and feelings” element and confirmed that social image positively influence value for money. Chekalina (2015) confirms positive perception of the value-for-money and social destination resources. The same author argues that social engagements are important part of visiting a destination suggesting that well-trained, service-oriented, professional and highly qualified personnel at the tourism organizations and lodging facilities can contribute that tourists feel comfortable, welcome and experience value for money. The author states that travelling raises possibility of having social engagements in a casual atmosphere and enhance travelling experience by meeting interesting people. When travelling, one can exchange life experiences, feelings and thoughts with other travelers. Shopping in another part of the world, where prices and choices of products are different brings another level of social excitement contributing to the trips’ value for money. The same author suggests that the overall positive experience of travelling including satisfaction with many activities and value for money, create positive feeling and result in happiness. Williams & Soutar (2009) point to the benefit of prestige as a social value resulting from the travel. Zeithaml (1988) suggested that consumer-value conceptualization corresponds to the positive relationship between value-for-money and the perception of destination resources.

Reasonable price is considered a perceived consumer value by Tasci (2018). Aaker (1996) included reasonable price in Brand Equity Ten Scales as a dimension of an association component. Iniesta-Bonillo et al. (2016) consider the difference between the economic benefit and economic cost, which indicate “reasonable” value or prices, as a part of the economic sustainability. Boo et al. (2009) places reasonable prices in the destination brand value context while Tasci (2018) suggests that latent variable consumer value, which includes “reasonable prices”, should be evaluated outside of the destination brand equity model as a separate item, rather than as its integral part. This thesis considers “reasonable price” together with “value-for-money”, as a building block of the socio-economic sustainability construct that belongs to the sustainability domain.

Environmental destination dimension was formulated using five-item scale which is supported by the previous research by reflecting on the environmental awareness of the quality of the environment. (Buckley, 2012; Iniesta-Bonillo et al., 2016; Andereck & Vogt, 2000). According to Iniesta-Bonillo et al., (2016), perceived environmental sustainability is a representative element of the general concept of sustainability while Andereck & Vogt (2000) state that the observable variables should be formulated to reflect impact that environment has on a tourism destination as shown in Figure 7.1.

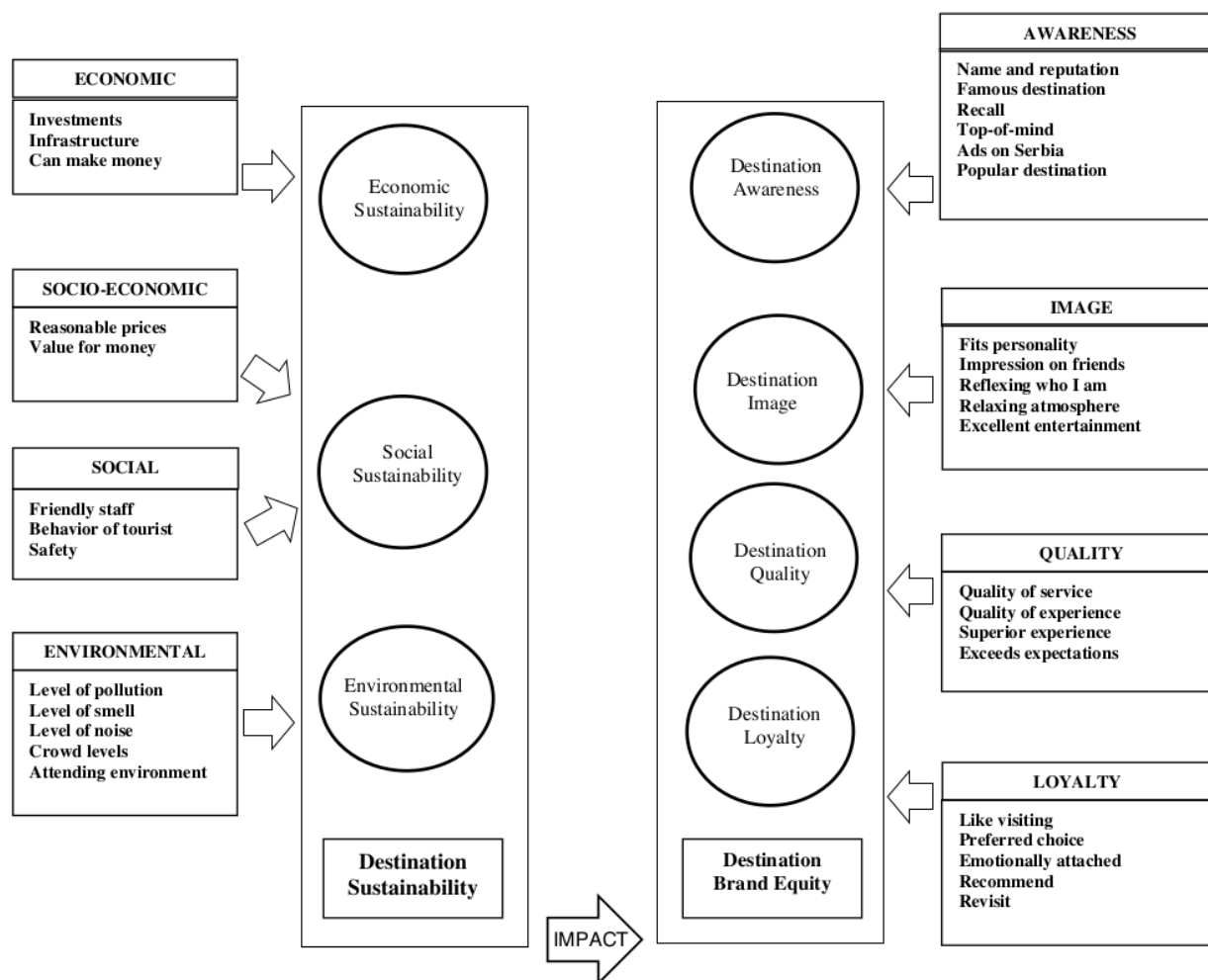


Figure 7.1. Scale Development for the Case of Serbia

The environmental observable variables are operationalized using the eleven-point Likert-type absolute scale ranging from “0=absolutely no” to “10=absolutely yes”¹⁸. The environment sustainability is the original area of focus by the research community. It relates to the natural capital and the state of the renewable and non-renewable resources. In this thesis they are operationalized as the impact of pollution, smell, noise, crowding, and environmental care, as shown in Figure 7.1. The variables reflect environmental awareness that lead to pro-environmental behavior as shown in Figure 2.10, page 58.

Destination awareness is operationalized in six statement variables (questions) at the eleven-point Likert-type absolute scale. As Aaker (1996) stated the top-of-mind awareness is hard to measure on visitors with previous experience with a destination (Konecnik & Gartner,

2007; Boo et al., 2009; Pike et al., 2010). Therefore, to measure destination brand awareness, the research instrument is formulated using metrics of destination brand knowledge and brand presence as employed by Lehmann, Keller, and Farley (2008). See Figure 7.1., p 134.

Destination image is operationalized using five variable statements ranked on eleven-point Likert scale. The list of image items is deduced from the previous tourism research literature (Konecnik & Gartner, 2007; Pike et al., 2010; Boo et al., 2009), and is polished in the context of Serbia-distinct attribute characteristics as communicated in the tourism publications, literature and media. The items are selected to represent the motive or emotional attachment tourists have towards the destination. See Figure 7.1., p. 134.

The conceptualization of the destination quality is formulated using four items ranked on eleven-point Likert scale. The items are formulated as statements. The tourism literature-based items are selected to capture the quality of service, superiority and performance (Konecnik & Gartner, 2007; Pike et al., 2010; Boo et al., 2009). See Figure 7.1., p. 134.

Finally, destination loyalty is conceptualized using five statements rated at the eleven-point Likert agreement scale, ranging from (0 absolutely no) and (10 absolutely yes). The statements are based on the previous tourism literature assessments of the destination brand loyalty (Konecnik & Gartner, 2007; Pike et al., 2010; Boo et al., 2009). The statements are constructed to reflect the preference, emotional attachment, repeat visitation and intention to recommend a destination. See Figure 7.1., p. 134.

Moreover, the wording and the structure of the questionnaire are polished and completed in the course of discussions with academic and research colleagues. The first 20 responses were used to pre-test the questionnaire, resulting in the change of wording in four questions. The questions were prepared in English using Google Forms application and were directly presented to respondents for self-answering using tablets or phones. The copy of the survey is presented in the Appendix B at the end of this paper.

7.3. Research Instrument

Design of the research instrument is intended for the foreign tourists only, and those who were in Serbia at the time the survey was conducted. It consists of the total of 41 questions, with 8 questions related to demographics. There are eight groups of questions, destination economic sustainability, destination socio-economic sustainability, destination social sustainability, destination environmental sustainability, destination brand awareness, image, quality and loyalty that correspond to dimensions of the proposed model. The socio-economic questions are extra measurement dimension introduced to support social and economic elements for better evaluation of the model. All non-demographic questions are rated on an eleven-point Likert agreement scale (0=absolutely no or disagree, to 10=absolutely yes or agree). Only the English version of the questionnaire is prepared, see Table 7.1 on page 134.

The Likert scale is used because it is easy to read and complete, produces reliable results and is simple to construct. The most popular Likert scales are 5 and 7-point. However, it is common to use 9-point Likert scale for increased granularity (Tasci, 2018). For the same reason, the thesis uses 11-point Likert scale to reduce the perceptual difference in size between the intervals (Bertram, 2019).

Table 7.1. Items for the Research Instrument

Items	References
Destination Brand Awareness	
AW1. Serbia has a good name and reputation	Konecnik & Gartner (2007), Boo et al. (2009), Pike et al. (2010)
AW2. Serbia is a famous destination	
AW3. Characteristics of Serbia come to my mind quickly	
AW4. When I am thinking of travelling, Serbia comes to my mind quickly	
AW5. Do you see ads on Serbia often	
AW6. Is Serbia a popular destination	
Destination Brand Image	
IM1. Serbia fits my personality	Konecnik & Gartner (2007), Boo et al. (2009),Pike et al. (2010)
IM2. My friends will think highly of me if I visit Serbia	
IM3. Visiting Serbia reflects who I am	
IM4. Serbia offers relaxing atmosphere	
IM5. Serbia offers excellent entertainment	
Destination Brand Quality	
Q1. Quality of services in Serbian tourism is in general high	Aaker (1991), Konecnik & Gartner (2007), Boo et al. (2009), Pike et al. (2010)
Q2. Serbia provides high quality experience	
Q3. Serbia is superior as a tourism destination	
Q4. Serbia performs better than expected	
Destination Brand Loyalty	
LO1. I enjoy visiting Serbia	Konecnik & Gartner (2007), Boo et al. (2009), Pike et al. (2010)
LO2. Serbia is my preferred choice for vacation	
LO3. I am emotionally attached to Serbia	
LO4. I will advise other people to visit Serbia	
LO5. I will visit Serbia again	
Destination Socio-Economic Sustainability	
VA1. Serbia has reasonable prices	Boo et al. (2009)
VA2. Comparing to other destinations visiting Serbia is good value-for-money	
Destination Social Sustainability	
SO1. Staff in restaurants, hotels and stores are very friendly	Chekalina et al.(2016)
SO2. I like behavior of other tourists	
SO3. I feel safe in Serbia	
Destination Economic Sustainability	
EC1. I noticed that investments are made to attract tourists	Iniesta-Bonillo, et al. (2016)
EC2. Serbia has good infrastructure	
EC3. Serbia can make money from tourism	
Destination Environmental Sustainability	
EN1. Level of pollution in Serbia is acceptable	

EN2. Level of smell in Serbia is acceptable	
EN3. Level of noise in Serbia is acceptable	
EN4. Crowd levels are acceptable in Serbia	Buckley (2012); Iniesta-
EN5. Serbia has visible practice in maintaining environment	Bonillo, et al. (2016)

7.4. Data Collection

Data collection process is conducted on the international tourists during their stay in Belgrade, Serbia. Belgrade, the capital of Serbia is considered the most popular destination among foreign tourists since according to Statistical Yearbook (2019) in 2018, 57% of foreign tourists who came to Serbia visited Belgrade and accounted for 55% of foreign tourists' overnights in the city. Because majority of the foreign tourists who visit Serbia tend to gravitate towards and spend most of the time in Belgrade, we can assume that the foreign tourists who visit Belgrade also represent those visiting Serbia. The idea of the survey is to capture the on-the-spot destination experience of the tourists. This approach has some reservations from the Palmer (2010) who suggests that evaluation of the service performance should happen sometimes after the consumption of service to allow for impressions to settle and mature.

The increased popularity of the on-line based surveys gave a way to the popularity of the mobile-phone or smart-phone based surveys. The Google Forms and similar applications are becoming increasingly popular as a tool for developing, revising, recording and analyzing the survey data. There are many advantages of using mobile phone-based surveys such as convenience, speed, timeliness, low administration cost, process control, analysis, global reach, easy and direct data entry by participants, error reduction and analysis. Also, the smart-phone surveys reduce the junk mail image of the e-mail survey.

Furthermore, the mobile-phone surveys drop the missing data issues since they have built-in features that do not allow omitting fields. Next, traditional problems with internet connections and coverage are eliminated since the mobile phones are constantly online if there is a signal coverage, which is more widespread than internet connections. Moreover, the mobile data signal is conveniently available at almost any location making it convenient and possible for conducting the survey anywhere.

Easy of a survey design creates advantage since the Google Forms uses its easy-to-use development platform. Finally, privacy and security issues are of low concern since the data comes directly to the designated host platform. In comparison to the regular mail or e-mail surveys the response rate of the surveys using mobile-phone applications are higher since they are conducted on the spot in the interviewer-to-person context. The Google Forms application structured format allows for the self-completing the survey by participants. Also, the survey application doesn't allow for data outliers if a structured Likert-style format is used.

The tourist structure of the survey participants by the incoming country suggests that most of the interviewers are from the former republics of Yugoslavia and countries that are close neighbors to Serbia, with exception of Turkey and Greece.

Data were anonymously acquired between September of 2018 and May 2019 from the tourists at the several well-known tourist attractions in Belgrade. Most of the interviews took place at Kalemegdan Fortress, Knez Mihailova Street and around the Temple of Saint Sava. These locations were selected based on the interviewers' previous experience based on the success ratio between completed interviews and the number of tourists asked to participate.

The interviews were conducted using an online Google Form application in the presence of the interviewers who controlled that data were entered smoothly flawlessly.

Potential candidates for the survey were approached in English and initially screened for the survey. Those willing to participate were given tablet or phone with ready-to-use Google Form application for the self-entry. Partially finished surveys were automatically discarded by the Google Forms which eliminated missing data issues. The answers of the first question in the survey, which required that participants to type the country of residence in the open “text” format, were later standardized in the Excel database by the administrator. This was needed since participants used many different spelling ways to name their countries of residence. All other questions were in the structured format.

The number of valid responses collected was $n=368$. The number of missing entries was zero since the Google Form doesn’t allow empty fields. Therefore, no missing value corrections were needed.

7.5. Data Analysis

The survey of Serbia turned out to be very heterogeneous in terms of the number of countries taking place. The total of 49 countries participated in the survey. The most participants were from Turkey 12%, followed by Greece 9% and North Macedonia 7%. The top 51% of the participants come from just 7 countries: Turkey 12%, Greece 9%, North Macedonia 7%, Bulgaria 6%, Croatia 6%, Montenegro 5% and Slovenia 5%. The participant structure of the interviews mainly corresponds to the structure of the foreign tourists’ arrivals in Serbia in 2018.³

The number of participants from the former Yugoslav republics were 26% with the highest number of the tourists arriving from North Macedonia 7.34% followed by Croatia 6.25%. From the neighboring countries the number of participants was 28% with the highest percentage coming from North Macedonia. Since majority of the foreign tourists who visit Serbia gravitate towards Belgrade (Statistical Yearbook, 2019), in this thesis we can assume that those who participated in the survey represent tourists visiting Serbia.

The analysis shows that 49% of the participants were between 20 and 29 years of age. Males outnumbered females 56% to 44% respectively. Nevertheless, there is a good balance between male and female travelers visiting Serbia. Most of the participants 37% reported that they work in the private sector, followed by students 21% and those working in public institutions 20%. The 40% of the participants reported income over \$10,000 while 23% reported income between \$10,000 and \$20,000. Tourists who visit Serbia are likely to travel with a friend 42% while 53% reported their marital status as single, see Table 7.2., on page 139.

Students are one-fifth of the total participants interviewed confirming that Belgrade and Serbia offer good entertainment and value for money. Half of the visitors reported that they are first time in Serbia showing good balance between those with and without prior tourism experience with Serbia. In this thesis, Belgrade is considered a representative of Serbia.

³ (in thousands) Bosnia & Herzegovina (121), Bulgaria (100), Turkey (97), Croatia (94), Slovenia (87), Montenegro (82), Greece (71) and etc. (Statistical Yearbook, 2019, p. 344).

Also, one third of the travelers were married couples, half of them with children pointing that Serbia is interesting and safe country. However, the overall impression is that Serbia is mostly popular among its immediate neighbors as well as Turkey and Greece. The exceptions are the tourists from Romania and Hungary. Because of the language difficulties the Chinese tourists, whose presence dramatically increased in Serbia recently, are absent in the survey.

Table 7.2. Demographic Characteristics

Response	N= 368	
	Frequency	Percent
Gender		
Female	163	44.29
Male	205	55.71
Total	368	100.00
First Time in Serbia		
Yes	191	51.90
No	177	48.10
Total	368	100.00
Marital Status		
Married with Children	62	16.85
Married without Children	49	13.32
Single	202	54.89
Divorced	7	1.90
Other	48	13.04
Total	368	100.00
Traveling With		
Alone	61	16.58
Friend	155	42.12
Group	2	0.54
Partner	95	25.82
Relative	13	3.53
Spouse	36	9.78
Business Partner	6	1.63
Total	368	100.00
Income		
under \$10,000	147	39.95
\$10,000-\$20,000	85	23.10
\$20,000-30,000	47	12.77

\$30,000-\$40,000	32	8.70
over \$40,000	57	15.49
Total	368	100.00
Occupation		
Academic	31	8.42
NGO	4	1.09
Private	136	36.96
Public	72	19.57
Student	79	21.47
Other	46	12.5
Total	368	100.00
Age		
Under 20	20	5.43
20-29	181	49.18
30-39	116	31.52
40-49	34	9.24
50-59	13	3.53
Over 60	4	1.09
Total	368	100.00
Country of Residence		
Turkey	43	11.68
Greece	33	8.97
Macedonia	27	7.34
Bulgaria	23	6.25
Croatia	23	6.25
Montenegro	19	5.43
Slovenia	19	5.16
Other	180	48.10
Total	368	100.00

Descriptive statistics, shown in Table 7.3., on page 141, shows skewness, kurtosis, means and standard deviations for the items of the measurement model for the overall sample (n=368). The analysis of the descriptive statistics highlights the high difference between mean minimum and maximum values of 4.46. Also, the difference between median values (not shown in Table 7.3, p.141) is 5.00, which is high. The difference in standard deviation range from 1.69 to 3.21 or maximum 1.52. Standard deviation shows the spread of data. In normal distribution 99% of data needs to fall within three standard deviations from each side of the mean. If standard

deviation is close to mean that leads to kurtosis issue which is the case with AW4, AW5 and AW6 in Table 7.3 on page 141.

The difference in the values of skewness are under 1.52 with no extremes over (+/-) 2.00 threshold, showing acceptable levels. The kurtosis values range from -1.03 to 3.34, suggesting kurtosis issue in some responses. Since, there is only one item with extreme kurtosis value of 3.34 and the skewness value just over the 2.00 threshold, we can assume data as acceptable. Overall, the (n=368) survey data is considered normally distributed and suitable for multivariate analysis.

Table 7.3. Descriptive Statistics

Items	Mean	SD	SK	KUR
Destination Brand Awareness				
AW1. Serbia has a good name and reputation	7.49	2.09	-0.66	0.19
AW2. Serbia is a famous destination	6.32	2.62	-0.28	-0.83
AW3. Characteristics of Serbia come to my mind quickly	6.92	2.52	-0.58	-0.50
AW4. When I am thinking of travelling, Serbia comes to my mind quickly	5.88	2.94	-0.21	-1.01
AW5. Do you see ads on Serbia often	4.18	3.21	0.37	-1.03
AW6. Is Serbia a popular destination	5.53	2.80	0.05	-0.97
Destination Brand Image				
IM1. Serbia fits my personality	7.52	2.22	-0.84	0.29
IM2. My friends will think highly of me if I visit Serbia	6.59	2.50	-0.58	-0.09
IM3. Visiting Serbia reflects who I am	6.52	2.62	-0.59	-0.21
IM4. Serbia offers relaxing atmosphere	7.75	2.19	-0.93	0.43
IM5. Serbia offers excellent entertainment	7.82	2.10	-1.07	1.37
Destination Brand Quality				
Q1. Quality of services in Serbian tourism is in general high	7.04	2.11	-0.74	0.64
Q2. Serbia provides high quality experience	7.15	1.96	-0.47	0.27
Q3. Serbia is superior as a tourism destination	6.05	2.52	-0.14	-0.80
Q4. Serbia performs better than expected	7.27	2.17	-0.77	0.11
Destination Brand Loyalty				
LO1. I enjoy visiting Serbia	8.64	1.74	-1.46	2.23
LO2. Serbia is my preferred choice for vacation	5.97	2.77	-0.32	-0.77
LO3. I am emotionally attached to Serbia	6.23	3.20	-0.52	-0.87
LO4. I will advise other people to visit Serbia	8.11	2.08	-1.39	2.17
LO5. I will visit Serbia again	8.39	2.30	-1.87	3.34
Destination Socio-Economic Sustainability				
VA1. Serbia has reasonable prices	8.54	1.69	-1.25	1.21

VA2. Comparing to other destinations visiting Serbia is good value-for-money	8.29	1.70	-0.97	0.39
Destination Social Sustainability				
SO1. Staff in restaurants, hotels and stores are very friendly	8.19	1.88	-1.22	1.41
SO2. I like behavior of other tourists	7.38	1.95	-0.65	0.6
SO3. I feel safe in Serbia	7.82	2.05	-1.15	1.38
Destination Economic Sustainability				
EC1. I noticed that investments are made to attract tourists	6.70	2.41	-0.62	-0.07
EC2. Serbia has good infrastructure	6.42	2.33	-0.62	-0.05
EC3. Serbia can make money from tourism	8.08	2.00	-1.33	2.10
Destination Environmental Sustainability				
EN1. Level of pollution in Serbia is acceptable	6.74	2.33	-0.72	0.33
EN2. Level of smell in Serbia is acceptable	7.11	2.21	-0.74	0.32
EN3. Level of noise in Serbia is acceptable	7.24	1.97	-0.48	-0.15
EN4. Crowd levels are acceptable in Serbia	7.57	1.86	-0.88	1.13
EN5. Serbia has visible practice in maintaining environment	6.48	2.31	-0.57	-0.06

SD=Standard deviation; SK=Skewness; KUR=Kurtosis

7.6. Multivariate Analysis

The exploratory factor analysis (EFA), provided by SPSS application version 21, using Principal Component Analysis (PCA) method with Promax and Kaiser Normalization rotation and eigenvalue greater-than-one criteria, resulted in extraction of 5 factors which accounted for the total of 71.5% of the sum of square loading variances explained. The EFA reduced the number of variables from the original 33 to 21, see Table 8.4.

Table 7.4. Measurement Model

Factors	D	N	SL	CA	VE%	CR	AVE
<i>Destination Image & Loyalty</i>		3		0.83	40.06	0.82	0.61
Fits personality	IM1		0.823				
Impression on friends (a)	IM2						
Reflects who I am	IM3		0.742				
Relaxing atmosphere (a)	IM4						
Excellent entertainment (a)	IM5						
Like visiting Serbia (a)	LO1						
Preferred choice (a)	LO2						
Emotionally attached (b)	LO3		0.757				
Recommend Serbia	LO4		0.748				
Revisit Serbia	LO5		0.767				
<i>Destination Awareness</i>		2		0.88	12.28	0.86	0.76

Name and reputation (a)	AW1					
Famous destination	AW2	0.879				
Recall (a)	AW3					
Top-of-mind awareness (b)	AW4	0.655				
Ads on Serbia	AW5	0.830				
Popular destination(b)	AW6	0.898				
<i>Environmental Sustainability</i>		2	0.82	8.56	0.77	0.63
Level of pollution (b)	EN1	0.717				
Level of smell	EN2	0.899				
Level of noise	EN3	0.868				
Crowd levels (b)	EN4	0.641				
Maintaining environment (a)	EN5					
<i>Destination Quality</i>		3	0.86	5.65	0.82	0.61
Quality of service	Q1	0.834				
Quality of experience	Q2	0.741				
Superior experience	Q3	0.721				
Exceeds expectations (b)	Q4	0.786				
<i>Socio-Economic Sustainability</i>		2	0.83	4.94	0.84	0.72
Reasonable prices	VA1	0.908				
Value for money	VA2	0.852				
<i>Social Sustainability</i>		0				
Friendly staff (a)	SO1					
Behavior of tourists (a)	SO2					
Safety (a)	SO3					
<i>Economic Sustainability</i>		0				
Investments (a)	EC1					
Infrastructure (a)	EC2					
Can make money (a)	EC3					

Total variance explained

71.51

TD tourism destination; D dimensions (AW awareness, IM image, Q quality, LO loyalty, SO social, EC economic, EN environmental); N number of extracted items; SL standardized loadings; CA Cronbach's alpha; VE variance explained; N number of variables after CFA; CR composite reliability; AVE average variance extracted;(a) items deleted after EFA; (b) items deleted after CFA.

¹ The Kaiser-Meyer-Olkin test of sampling adequacy of 0.93 is significantly above the threshold of 0.5, indicates good internal consistency while Bartlett's Test of Sphericity is significant ($p < 0.001$) suggesting that data is suitable for factor analysis (Field, 2009). The Cronbach's Alpha of 0.911, is significantly higher then the threshold of 0.7 which confirms good internal reliability of data and pointing that correlation matrix is suitable for factor analysis.

The first factor, which explains 40.06% of variance, is named as "destination image and loyalty". The factor has dual features of destination loyalty and image. It reflects the intention to recommend, revisit, and emotional attachment on the loyalty side, while at the same time, it

supports personality and self-identity on the image side, see Table 7.4., on page 142. The 0.831 Cronbach's Alpha suggests good internal reliability of the factor. The findings confirm the earlier research that destination personality and self-identity form image associations while intention to revisit, recommend and emotional attachment to destination form loyalty association.

The second factor, marked as "destination awareness", accounts for 12.28% of the variances. It reflects tourists' strength of information about the destination. The 0.876 Cronbach's Alpha indicates a very good level of internal reliability, see Table 7.4., on page 142. The factor consists of four exogenous variables such as famous destination, top-of-mind awareness, advertising, and popularity. The findings are consistent with the previous research of destination awareness which supports, recognition, recall, top-of-mind awareness, and knowledge (Im et al., 2012).

Environmental sustainability is the third factor with 8.56% of the variances explained. It includes tourists' perception of the features that contribute to the overall experience of the environmental sustainability. Those observable features are pollution, smell, noise, crowding, and maintenance. The 0.818 Cronbach's Alpha indicates very good internal reliability. The findings are in line with the previous research literature and arguments.

The fourth factor accounts for 5.65% of the variances explained. It is denoted as "destination quality". The factor consists of four observable variables: service quality, experience, superiority, and expectation. All the variables are supported by the research literature on tourism destinations. The Cronbach's Alpha is 0.861 which shows acceptable internal reliability.

The final factor is marked as socio-economic with 4.94% of the variances explained. The Cronbach's Alpha of 0.832 shows good internal reliability. The factor drawn from the two observable variables: "reasonable prices: and "good value for money". This factor is used in the research literature to improve the proposed models. In this thesis it is considered as a stand-alone factor, however, it can be considered as a part of both the social and economic domain. In this thesis, the "value-for-money" and "reasonable prices" constructs are recognized as observable social and economic variables respectfully. Reasonable prices is based on the ratio between price and from the benefit derived from "get" and "give" while value-for-money is based on the utility derived from the products ability to increase social concepts (Sweeney & Soutar, 2001). Both variables are engaged in the synergy relationship that creates a latent (higher-order) variable "socio-economic" that will represent them in the analysis.

Measurement model analysis (CFA) did not confirm goodness-of-fit (GOF) for the first element of the social sustainability: friendliness, safety and behavior of tourists, however, it has confirmed GOF for the of socio-economic element. At last, the CFA did not confirm the elements of economic sustainability: investments, infrastructure and making money from tourism. In both instances, the conclusion is that foreign tourists could not develop strong perception of the Serbian economy and its social structure based on trust and power. However, international tourists pay significant attention on the perception of benefits, costs and social interaction. This is a valuable information that all relevant stakeholders in Serbia can use as a bases for the development of destination management, marketing and development strategies.

The correlations matrix in Table 7.5. suggests no multicollinearity. The matrix shows poor correlation between destination awareness and destination socio-economic sustainability.

Table 7.5. Component Correlation Matrix

Component	Quality	Awareness	Image & Loyalty	Environment	Socio-Economic
Quality	0.782				
Awareness	0.485	0.871			
Image & Loyalty	0.590	0.521	0.783		
Environment	0.461	0.233	0.351	0.796	
Socio-Economic Sust.	0.359	0.072	0.366	0.312	0.850

Values in bold show AVE levels; Non-diagonal values show correlations between model elements produced by Principal Component Analysis with Promax and Kaiser Normalization rotation using AMOS.

The reliability, discriminant and convergent validity are confirmed, as shown in Table 7.6. Composite reliability (CR) shows an acceptable range ($CR > 0.7$) between 0.775 and 0.862, suggesting a good internal consistency of data. Convergent validity is analyzed by average variance extracted index (AVE), which shows values between 0.612 and 0.758 (Table 7.6.) which is greater than 0.5 threshold (Hair et al., 2010). The discriminant validity is confirmed based on the measurement of maximum shared variance (MSV) and average shared variance (ASV). For all constructs the ASV is lower than MSV which confirms discriminant validity.

Table 7.6. Reliability, Convergent and Discriminatory Validity Matrix

	CR	AVE	MSV	ASV
Quality	0.825	0.612	0.566	0.361
Awareness	0.862	0.758	0.305	0.163
Image & Loyalty	0.823	0.613	0.566	0.298
Environment	0.775	0.633	0.281	0.150
Socio-Economic Sust.	0.838	0.723	0.295	0.173

CR composite reliability; AVE average variance extracted; MSV maximum shared variance; ASV averaged shared variance

7.7. Measurement Model Analysis

Confirmatory factor analysis (CFA), conducted in AMOS, version 23 software package, further reduced the number of variables from 21 to 12 as a part of the empirical testing of the measurement model (Hair, et al., 2010), see Table 7.4., p.142. The goodness-of-fit statistics shows that all parameters are within the recommending values (Table 7.7., p. 146). Based on the measurement model data presented in Table 7.4., page 142, the diagram of the measurement model is constructed using AMOS, version 23, in Figure 7.2., page 146.

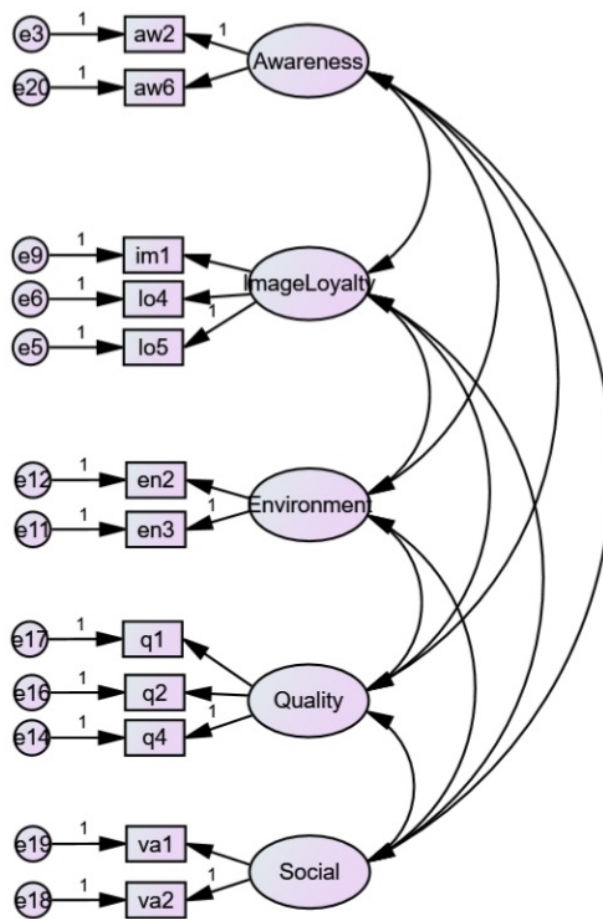


Figure 7.2. Measurement Model Case of Serbia (AMOS, v.23)

Table 7.7. ³ Goodness-of-Fit Statistics

	Measurement indicator (Threshold Value)	RV	SV
⁶ Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	2.443

RV value	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.955
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.919
SRMR	Standardized Root Mean Square Residual	<0.08	0.037
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.970
TLI	Tucker-Lewis Index	>0.90	0.955
Parsimony-Adjusted Measures			
4 CLOSE	P of close fit	>0.05	0.079
RMSEA	Root Mean Square Error of Approximation <0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		0.063

RV recommended value; SV statistical value;

All fit statistics show values above recommended thresholds except for the p value (Table 7.7., p. 146). Since the p values are sensitive to the survey size it would be difficult to get p value higher than 0.0 (Brown, 2006). The standardized loadings are all above 0.5. Since all other indexes are meeting the cut-off requirements the measurements show a robust fit between the estimated and proposed model (Hu & Bentler, 1998; Steenkamp & Baumgartner, 2000).

80

7.8. Structural Equation Modeling

To evaluate the causal relationships among the components of the adopted paradigm and to test the hypotheses the path model analysis, is considered. The two scenario SEM analysis is employed to confirm the stated hypotheses.

In each scenario the model is analyzed from the perspective of a different predictor or exogenous construct in order to capture and highlight the hypothesized paths in the model. In the first scenario, socio-economic sustainability construct is used as a predictor while in the second scenario environmental sustainability construct takes the predictor' role. The economic factor, which is left out by CFA, see Table 7.4., p. 142. However, the economic impact can still be analyzed using the socio-economic element. That means that in SEM analysis destination sustainability will be represented by socio-economic and environmental elements.

In the SEM analysis predictor is an exogenous construct that acts as an independent variable. In the SEM diagram, the "independent variable" is depicted by arrows pointing away from the predictor to other constructs in the model.

7.8.1. Scenario 1: Socio-Economic Construct as Predictor

In the first scenario the estimated model consists of the five constructs with socio-economic sustainability as the predictor element, environmental sustainability, destination loyalty and destination image as a joint construct, destination awareness and destination quality, Figure 7.1., p. 134 . The joint construct formed by destination image and loyalty is represented by three variables: fits-my-personality, recommend and revisit Serbia.

The predictor element is defined by two observable variables: reasonable prices and value-for-money, see Table 7.4., p 142. The predictor construct acts as an independent variable that predicts value of other constructs in the model. The path analysis of the model in Figure

7.2., page 146, reveals the following hypotheses: H3, H4, H5, H6, H7, H8, H9, H10, H11, H12, H13 and H14.

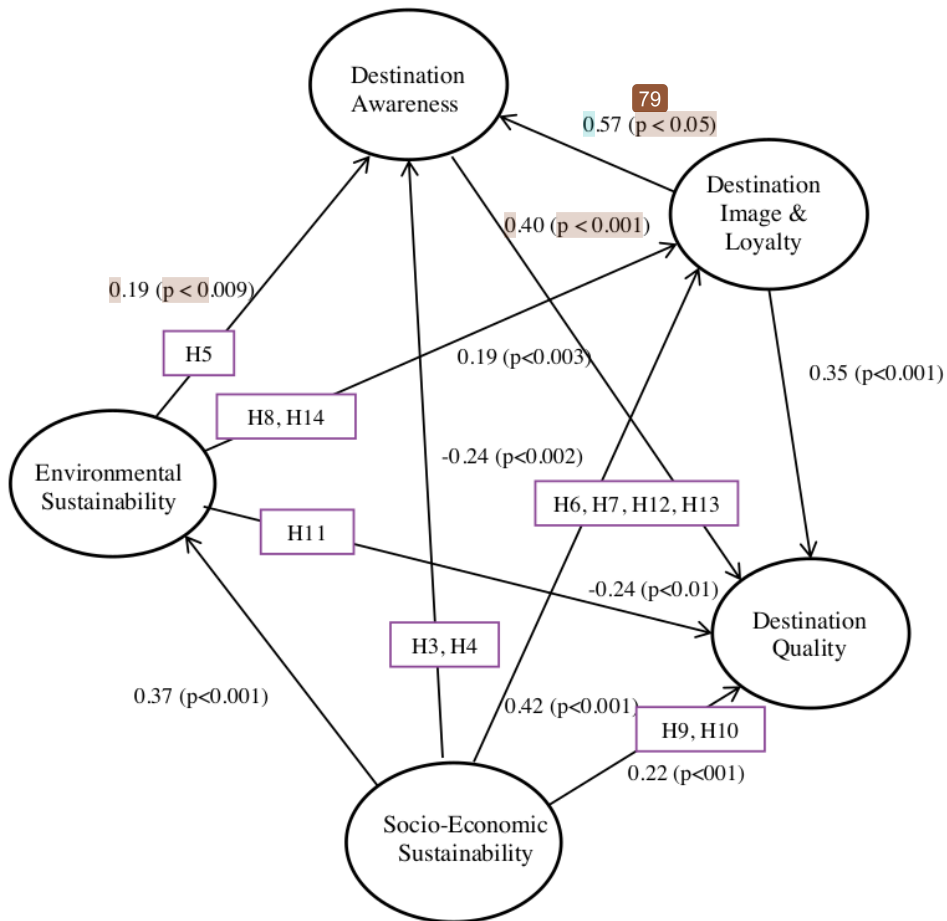


Figure 7.3. Social and Economic Sustainability Construct as Predictor

The estimated model shows that socio-economic sustainability element as the most dominant as it impacts all other elements in the model. The impact of the social-economic element is most obvious on destination loyalty and image (0.42) and environmental sustainability (0.37).

All path estimates shown in Figure 7.1, page 134, are all statistically significant at p values lower than 0.001 and 0.05. The path analysis, shown in Figure 7.2., page 146, confirms twelve (12) hypothesized relations and shows very good goodness-of-fit criteria, as shown in Table 7.8 on page 148.

Table 7.8 Goodness-of-Fit Statistics Case of Serbia Case

	Measurement indicator (Threshold Value)	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	1.913
	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.965
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.938
SRMR	Standardized Root Mean Square Residual	<0.08	0.035
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.979
TLI	Tucker-Lewis Index	>0.90	0.969
Parsimony-Adjusted Measures			
PCLOSE	P of close fit	>0.05	0.483
RMSEA	Root Mean Square Error of Approximation <0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		0.05

RV recommended value; SV statistical value;

The goodness of fit statistics in Table 7.8 shows good overall measures with all indexes satisfying fully the recommended thresholds. All indexes are showing good values except for the p value which is difficult to get recommended values of over 0.05 because of the sample size.

The path analysis in Figure 7.3., on page 148, confirms findings in the research literature (Nunkoo & Ramkinsoon, 2011; Andereck et al., 2011; Ward & Berno, 2011; Latkova & Vogt, 2012), that social and economic dimensions have significant influence on the destination brand equity dimensions. The path analysis shows statistically significant relations with destination image, destination loyalty, destination awareness and destination quality, capturing the essence of the thesis that destination sustainability has positive impact on destination brand equity (H1) and, consequently, that any development of the tourism destination, including development of destination brand equity is done under the umbrella of social and economic sustainability, therefore, contributing to the confirmation of hypothesis (H2).

As this thesis uses historical data in the statistical analysis, the thesis confirms that these two processes, sustainability development and destination brand equity development which are taking place as parallel activities are inseparable and highly correlated.

Furthermore, the path analysis could not confirm the statistically significant relationship between economic sustainability on all destination brand equity elements shown in Figure 8.1a, p.... Also, the path analysis confirms the indirect (moderating) effects of social and economic sustainability on destination awareness and quality elements through destination image and loyalty constructs. There is also indirect effect of social and economic sustainability on all elements of the destination brand equity.

Both direct and indirect effects confirm that social sustainability and economic sustainability have significant impact on the elements of destination brand equity supporting the confirmation of H1 and H2.

Finally, we can summarize the structural parameter estimates for each of the hypothesized relations in Table 7.9.

Table 7.9. Structural Weight Estimates for Case of Serbia

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H3: Eco → Aw	-0.320	-0.240	0.101	-3.174
H4: Soc → Aw	-0.320	-0.240	0.101	-3.174
H5: Env → Aw	0.236	0.187	0.090	2.612
H6: Eco → Im	0.391	0.422	0.069	5.562
H7: Soc → Im	0.391	0.422	0.069	5.562
H8: Env → Im	0.193	0.190	0.065	2.946
H9: Eco → Qu	0.222	0.223	0.058	3.802
H10: Soc → Qu	0.222	0.223	0.058	3.802
H11: Env → Qu	0.128	0.137	0.050	2.586
H12: Eco → Lo	0.391	0.422	0.069	5.562
H13: Soc → Lo	0.391	0.422	0.069	5.562
H14: Env → Lo	0.193	0.190	0.065	2.946

Aw destination awareness; Im destination image; Qu destination quality; Lo destination loyalty; Eco economic sustainability; Env environmental sustainability; Soc social sustainability. Eco economic sustainability

The path analysis in Figure 7.3., page 148, and Table 7.9. has statistically confirmed twelve relations and has established a common base for confirming H1 and H2 hypotheses later in the study. All twelve confirmed paths are statistically significant. Therefore, based on the validity and reliability analysis them model is considered as valid, reliable and acceptable.

7.8.2. Scenario 2: Environmental Construct as Predictor

In the second scenario the estimated model, consists of the five constructs with environmental sustainability as the predictor element, socio-economic sustainability as a joint construct of economic and social element, destination loyalty and destination image as a joint construct, destination awareness and destination quality, Figure 7.4., p. 154. As pointed earlier, the joint construct formed by destination image and loyalty is represented by three variables: fits-my-personality, recommend and revisit Serbia.

The predictor element is defined by two observable variables: level of smell and level of noise. The path analysis of the model in Figure 7.4., p. 154, reveals the following hypotheses: H3, H4, H6, H7, H8, H9, H10, H11, H12, H13 and H14.

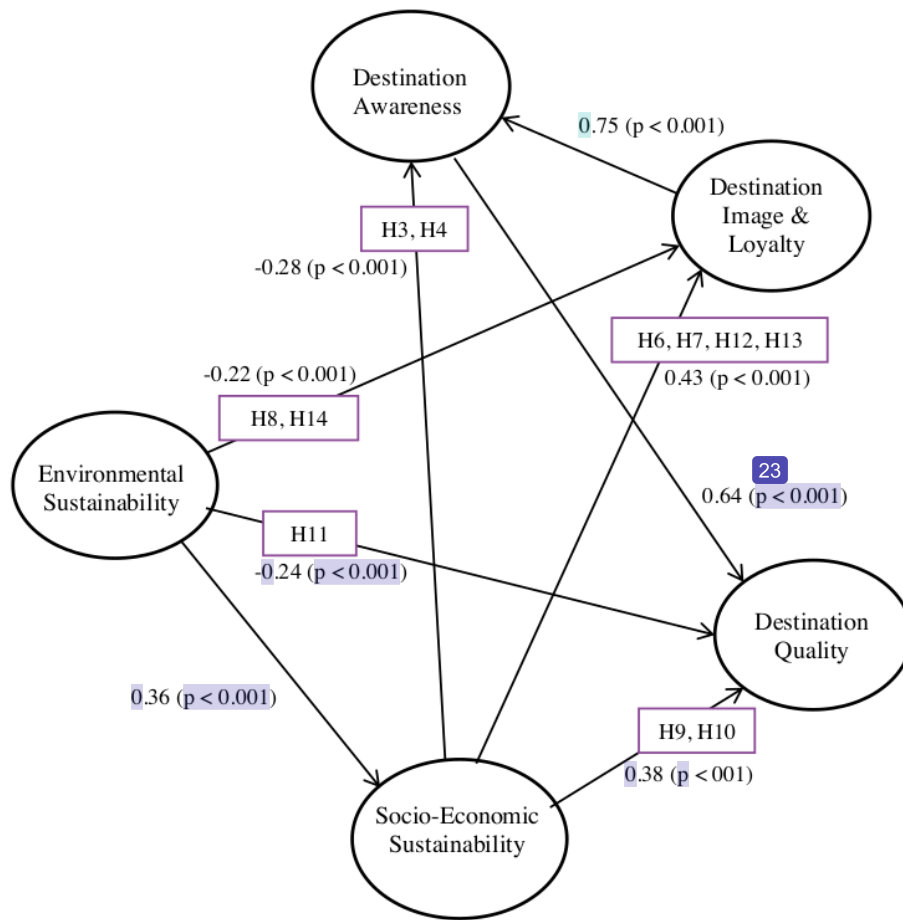


Figure 7.4. Environmental Construct as Predictor

The estimated model shows that socio-economic sustainability, as a moderating element, is the most dominant as it impacts all other destination brand equity elements in the model. The impact of the social and economic element is most obvious on destination loyalty and image (0.4), destination quality (0.36) destination awareness (-0.28). Negative relationship between social and economic sustainability and destination awareness can be explained by looking more closely to the corresponding observable variables. The destination awareness is defined by “level of smell” and “level of noise” variables. Their increase can obviously cause deterioration of the value-for-money and price levels causing the perception value of the social and economic sustainability to decrease.

Environmental sustainability constructs show direct impact on destination image and loyalty (0.22), destination quality (0.43) and social sustainability (0.36)

All path estimates shown in Figure 7.4., page 154, are all statistically significant at p values lower than 0.001 and 0.05. The path analysis confirms seven hypothesized relations and shows very good goodness-of-fit criteria, as shown in Table 7.10.

Table 7.10. Goodness-of-Fit Statistics - Case of Serbia

	Measurement indicator (Threshold Value)	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	2.461
p	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.951
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.917
SRMR	Standardized Root Mean Square Residual	<0.08	0.042
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.966
TLI	Tucker-Lewis Index	>0.90	0.951
Parsimony-Adjusted Measures			
P of close fit	P of close fit	>0.05	0.068
RMSEA	Root Mean Square Error of Approximation		0.063
	<0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		

RV recommended value; SV statistical value.

The goodness of fit statistics in Table 7.10 shows almost perfect overall measures with all indexes satisfying fully the recommended thresholds, except for the p value.

The path analysis in Figure 7.4., on page 154, confirms findings in the research literature, that environment dimension has significant influence on the destination brand equity dimensions (Nunkoo & Ramkinsoon, 2011; Andereck et al., 2011; Ward & Berno, 2011; Latkova & Vogt, 2012).

The path analysis shows statistically significant relations between environmental sustainability with destination image, destination loyalty and destination quality but not with destination awareness. However, social and economic sustainability, as predicted constructs by environmental element, show impact on all destination brand equity elements, confirming findings from the Figure 7.3., p. 148, in Scenario 1.

Thus, capturing the essence of the thesis that destination sustainability has positive impact on destination brand equity (H1) and, consequently, that any development of the tourism destination, including destination brand equity is done under the social sustainability, hence, confirmation of hypothesis (H2).

As this thesis uses empirical data in the statistical analysis, the thesis suggests that these two processes, sustainability development and destination brand equity development which are taking place as joined parallel activities are inseparable and highly correlated.

Furthermore, the path analysis could not confirm the statistically significant relationship of environmental sustainability on destination awareness as shown in Figure 7.4., p 151. Also, the path analysis confirms the indirect (moderating) effects of social and economic sustainability on elements of the destination brand equity.

Both direct and indirect effects confirm that social sustainability and economic sustainability have significant impact on the elements of destination brand equity, therefore, contributing to confirmation of H1 and H2.

Finally, we can summarize the structural parameter estimates for each of the hypothesized relations in Table 7.11.

Table 7.11. Structural Weight Estimates for Serbia

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H4: Eco → Aw	-0.360	-0.277	0.097	-3.708
H4: Soc → Aw	-0.360	-0.277	0.097	-3.708
H6: Eco → Im	0.482	0.431	0.075	6.437
H7: Soc → Im	0.482	0.431	0.075	6.437
H8: Env → Im	0.230	0.219	0.068	3.384
H9: Eco → Qu	0.389	0.381	0.058	6.723
H10: Soc → Qu	0.389	0.381	0.058	6.723
H11: Env → Qu	0.171	0.178	0.051	3.353
H13: Eco → Lo	0.482	0.431	0.075	6.437
H13: Soc → Lo	0.482	0.431	0.075	6.437
H14: Env → Lo	0.230	0.219	0.068	3.384

Aw destination awareness; Im destination image; Qu destination quality; Lo destination loyalty; Eco economic sustainability; Env environmental sustainability; Soc social sustainability

The analysis in Figure 7.4., page 151, and Table 7.11 has statistically confirmed eleven (11) relations and has established a common base for confirming H1 and H2 hypotheses later in the study. All eleven confirmed paths are statistically significant. Therefore, latent variables in the proposed paradigm are empirically considered as valid, reliable and acceptable.

In case when there are strong loadings between the elements in the structural path analysis there is possibility of the existence of a higher-order common factor (Byrne, Baron, Larsson, & Melin, 1995; Konecnik & Gartner, 2007; Iniesta-Bonillo et al., 2016). Therefore, the causal paths between the second-order factor destination brand equity and the lower-order elements destination awareness, destination image & loyalty and destination quality are significant at the 0.001 probability level (Figure 7.5., page 154).

The second order common element destination sustainability is constituted by two latent dimensions: socio-economic and environmental sustainability. As a result, there is a confirmation of the H1 hypothesis.

Also, the path analysis reveals direct and indirect mediating impact of the environmental sustainability on destination brand equity. The indirect effect is created by socio-economic sustainability element. The path analysis confirms statistically significant regression weights or correlation factors between environmental (0.36) and socio-economic (0.42) and destination brand equity.

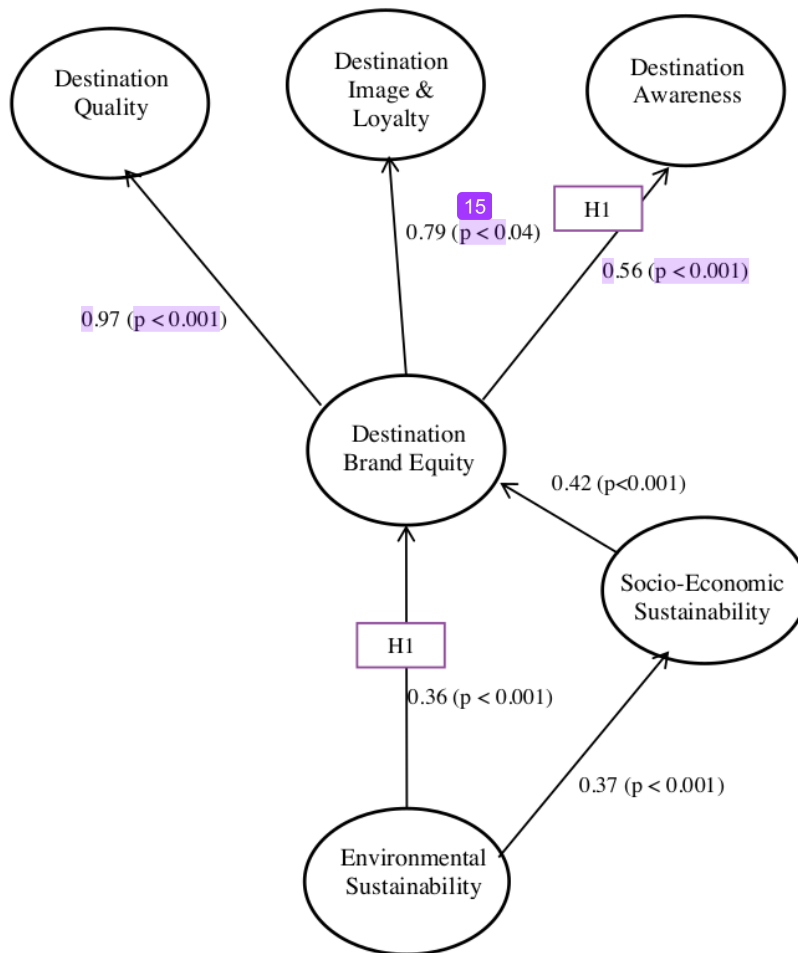


Figure 7.5. Second-Order Standardized Path Estimates: Destination Brand Equity

The goodness-of-fit thresholds for the estimated path analysis in Figure 7.5., on page 154, are confirmed in Table 7.12. The measurement indicators in Table 7.12 show good fit between the proposed and estimated model. The p value is highly sensitive to the sample size; therefore, it is difficult to expect values higher than zero. PCLOSE is also below its threshold value of 0.05 but higher than zero. Other measures are in the recommended ranges and contribute to the statistical significance of the model.

Table 7.12. Second-Order Measurement

	Measurement	RV	SV
Absolute Fit Measures ⁶			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	2.866
P	p value for the model	>0.05	0.000

1	GFI	Goodness-of-fit Index	>0.90	0.944
	AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.908
	SRMR	Standardized Root Mean Square Residual	<0.08	0.054
	CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.958
	TLI	Tucker-Lewis Index	>0.90	0.942
Parsimony-Adjusted Measures				
4	CLOSE	P of close fit	>0.05	0.006
	RMSEA	Root Mean Square Error of Approximation		0.071
		<0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		

RV recommended value; SV statistical value

Finally, we can summarize the structural parameter estimates for each of the hypothesized and significant relations in Table 7.13.

Table 7.13. Structural Weight Estimates for Second-Order Path Analysis

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H1: ENV → BE	0.272	0.358	0.061	6.756
H1: SOC-ECO → BE	0.332	0.417	0.062	5.352

ENV environment; BE destination brand equity; SOC socio-economic sustainability

As said earlier, the H1 hypothesis is confirmed since elements of the destination sustainability, represented by environmental, economic and social sustainability, have statistically significant impact on the destination brand equity. In addition, the path analysis in Figure 7.5., on page 154, the diagram highlights the significant and important mediating role of the --socio-economic element.

. Also, the path analysis points that the increase of the socio-economic value increases the value of the brand equity.

The correlations matrix in Table 7.14, suggests no multicollinearity. Also, the matrix shows acceptable correlations between components.

Table 7.14. Component Correlation Matrix

Component	Environment	Brand Equity	Socio-Economic
Environment	0.797		
Brand Equity	0.511	0.791	
Socio-Economic	0.368	0.548	0.852

Values in bold show AVE levels; Non-diagonal values show correlations between model elements produced by Principal Component Analysis with Promax and Kaiser Normalization rotation using AMOS

The reliability, discriminant and convergent validity are confirmed, as shown in Table 7.15, on page 156. Composite reliability (CR) shows an acceptable range (CR>0.7) between 0.840 and 0.776, suggesting a good internal consistency of data. Convergent validity is analyzed by average variance extracted index (AVE), which shows values between 0.726 and

0.626 (Table 7.15) which is greater than 0.5 threshold. The discriminant validity is confirmed based on the measurement of maximum shared variance (MSV) and average shared variance (AVE). ASV is lower than MSV which confirms discriminant validity.

Table 7.15. Reliability, Convergent and Discriminatory Validity Matrix

	CR	AVE	MSV	ASV
Environment	0.776	0.635	0.261	0.198
Brand Equity	0.828	0.626	0.300	0.281
socio-Economic Sust.	0.840	0.726	0.300	0.218

CR composite reliability; AVE average variance extracted; MSV maximum shared variance; ASV averaged shared variance;

Good relation between socio-economic sustainability (socio-economic) and environmental sustainability (0.37), see Figure 7.5., on page 154, shows possibility for constructing a higher-order element destination sustainability. The Figure 7.6., on page 157, presents the structural path diagram showing significant correlation between destination brand equity and destination sustainability. The correlation value or regression weight of 0.87 suggests that both elements, destination brand equity and sustainability, are inseparable confirming the hypothesis that the two constructs in the long run become one (H2). Further the path analysis of the same diagram confirms the earlier findings (Figure, 7.2., p. 81), 7.3 (p.97) and 8.4 (p.84) that destination sustainability imposes a statistically significant impact to destination brand equity. In practical terms, if sustainability goes up by 1.0 the brand equity goes up by 0.87. Therefore, the path analysis in Figure 7.6., p.157, confirms almost identical nature of destination sustainability and destination brand equity by testing the strength and direction of the impact.

Consequently, the analysis supports the H1 and H2 hypotheses (Table 7.17, p. 157).

Table 7.16. Second-Order Evaluation

	Measurement Values	RV	SV
Absolute Fit Measures			
CMIN	Chi-square/df <3 good; <5 sometimes permissible	<3	2.866
p	p value for the model	>0.05	0.000
GFI	Goodness-of-fit Index	>0.90	0.944
AGFI	Adjusted Goodness-of-Fit Index	>0.90	0.908
SRMR	Standardized Root Mean Square Residual	<0.08	0.054
CFI	Comparative Fit Index, ideally over 0.95	>0.90	0.958
TLI	Tucker-Lewis Index	>0.90	0.942
Parsimony-Adjusted Measures			
Close	P of close fit	>0.05	0.006
RMSEA	Root Mean Square Error of Approximation <0.05 good; 0.05 to 0.10 moderate; > 0.10 bad		0.071

RV recommended value; SV statistical value

The goodness-of-fit thresholds for the estimated path analysis in Figure 7.6., p. 157, are confirmed in Table 7.16., p. 159. The measurement indicators show good fit between the

proposed and estimated model. The p value is highly sensitive to the sample size; therefore, it is difficult to expect values higher than zero. PCLOSE is also below its threshold value of 0.05 but higher than zero. Other measures are in the recommended ranges and contribute to the statistical significance of the model. The values in Table 7.16., on page 159, are the same as those in Table 7.12., on page 154, since the same measurement model is used.

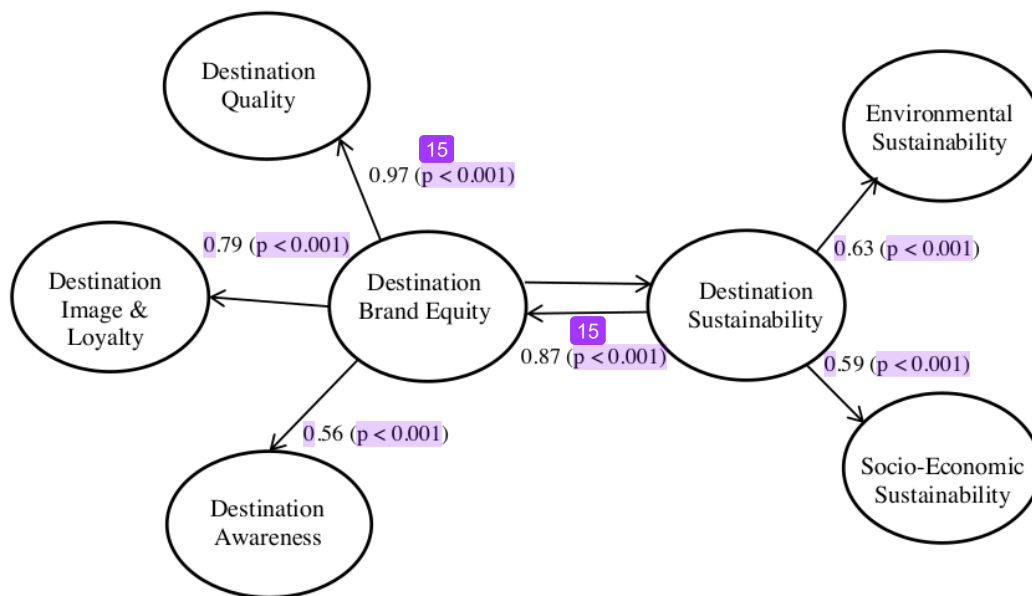


Figure 7.6. Two Second-Order Estimates: Brand Equity and Sustainability

Finally, the structural parameter estimates for each of the hypothesized and significant relations are summarized in Table 7.17.

Table 7.17. Structural Weight Estimates for Second-Order Path Analysis

Path Relationships	Unstandardized Weight Estimate	Standardized Weight Estimate	Standard Error Estimate	z-Value Estimate
H1: SUS → BE	1.134	0.873	0.222	5.106
H2: SUS & BE	1.134	0.873	0.222	5.106

SUS destination sustainability; BE destination brand equity; SUS & BE destination sustainability and brand equity in the long run.

7.9. Hypotheses Analysis Summary

Table 7.18. Confirmation of the Hypotheses

Path Relationships	Global Case	Serbia Case		Diagram in Figure
H1: SUS → BE	confirmed	confirmed		6.6, 6.7, 7.5, 7.6
H2: SUS & BE	confirmed	confirmed		6.7, 7.6
H3: Eco → Aw	not confirmed	confirmed		7.3, 7.4, 6.5
H4: Soc → Aw	confirmed	confirmed		6.3, 7.3, 7.4
H5: Env → Aw	confirmed	confirmed		6.4, 6.5, 7.3
H6: Eco → Im	not confirmed	confirmed		7.4, 6.5
H7: Soc → Im	confirmed	confirmed		6.3, 6.4, 7.3, 7.4
H8: Env → Im	confirmed	confirmed		6.4, 7.3, 7.4
H9: Eco → Qu	not confirmed	confirmed		7.3, 7.4, 6.5
H10: Soc → Qu	confirmed	confirmed		6.3, 6.4, 6.5, 7.3, 7.4
H11: Env → Qu	confirmed	confirmed		6.3, 6.4, 6.5, 7.3, 7.4
H12: Eco → Lo	confirmed	confirmed		7.3, 7.4, 6.5
H13: Soc → Lo	confirmed	confirmed		6.3, 6.4, 6.5, 7.3, 7.4
H14: Env → Lo	not confirmed	confirmed		7.3, 7.4, 6.5

SUS sustainability; BE brand equity, Aw awareness; Im image; Qu quality; Lo loyalty; Eco economic sustainability; Env environmental sustainability; Soc social sustainability; SUS sustainability; BE destination brand equity.

7.10. Results Summary

The final outcomes are shown in Table 7.18., with 4 unconfirmed hypotheses: H3, H6, H9 and H14 in the global case, and all confirmed hypotheses in the case of Serbia. The following is individual assessment of each hypothesis.

H1: There is a significant positive impact of tourism destination sustainability on tourism destination brand equity (Global: confirmed; Serbia: Confirmed)

Global Case: The hypothesis H1 is considered confirmed based on the findings in the study that majority of the elements of sustainability: economic, social and environmental have impact on destination brand equity. The study confirmed dominant role of the social element since it impacts all of the destination brand equity elements in both cases. Yet, impact of the economic element could not be confirmed on awareness H3, image H6 and quality H9 while environmental element could not be confirmed on loyalty H14. The latter suggest that environmental construct, which is represented by the two observable variables representing pollution, could not be related to loyalty element represented by country index and nations brand. Therefore, besides H1 and H2, eight other hypotheses are confirmed, making the total of 8 confirmed hypotheses.

Serbia Case: Based on the same criteria applied in the global case, the hypothesis H1 and H2 are considered confirmed. Also, 12 remaining hypotheses between H3 and H14 are confirmed making the total of 14 confirmed hypotheses. All three, social, economic and environmental sustainability elements exhibited the most impact on the destination brand equity elements.

H2: Tourism destination sustainability development and tourism destination brand equity development are two parallel processes that merge to become one process in the long run. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H2 is considered confirmed since the analysis in Figure 6.3., p. 117, shows that the second order elements representing destination sustainability and destination brand equity are highly correlated (0.92), meaning that destination sustainability element substantially explains the destination brand equity and vice-versa, confirming that in the long run both elements move in the same direction, have equal intensity and substance.

Serbia Case: The same is confirmed in the Figure 6.3., p. 117.

The following are analysis of hypotheses for the individual constructs in the global and case of Serbia scenarios.

H3: Economic sustainability has a positive impact on the destination awareness. (Global: Not Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H3 is not confirmed. The economic construct, based on the observable variables: arrivals, expenditure and number of international meetings, did not produce statistically significant relationships with most of the destination brand equity elements including awareness.

Serbia Case: The hypothesis H3 is confirmed. Statistically economic construct, as a part of joined socio-economic construct has significant relation with the destination awareness as shown in Figure 7.4., p. 151 and Figure 7.5., p. 154.

H4: Social sustainability has a positive impact on the destination awareness. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H4 is confirmed. The social construct, based on the observable variables: government effectiveness, competitiveness index and using internet for B2B, produced statistically significant relationships with all destination brand equity elements including awareness.

Serbia Case: As in the global case, the hypothesis H4 is confirmed. Statistically socio-economic construct, produced statistically significant relationships with all elements of destination brand equity, including awareness.

H5: Environmental sustainability has a positive impact on the destination awareness. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H5 is confirmed. The environmental construct, based on the observable variables: pollution and exponential pollution, produced statistically significant relationships with destination brand equity elements: awareness, quality and image.

Serbia Case: As in the global case, the hypothesis H5 is also confirmed. Statistically environmental construct, based on the observable variables: level of smell and level of noise, produced statistically significant relationships with all elements of destination brand equity including awareness.

H6: Economic sustainability has a positive impact on the destination image. (Global: Not Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H6 is not confirmed. The economic construct, based on the observable variables: arrivals, expenditure and number of international meetings, did not produce statistically significant relationships with destination image.

Serbia Case: The hypothesis H6 is confirmed.

Statistically economic construct, as a part of joined socio-economic construct has significant relation with the destination image as shown in Figure 7.4., p 151.

H7: Social sustainability has a positive impact on the destination image. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H7 is confirmed. The social construct, based on the observable variables: government effectiveness, competitiveness index and using internet for B2B, produced statistically significant relationships with all destination brand equity elements.

Serbia Case: As in the global case, the hypothesis H7 is confirmed. Statistically socio-economic construct produced statistically significant relationships with the elements of destination image.

H8: Environmental sustainability has a positive impact on the destination image. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H8 is confirmed. The environmental construct, based on the observable variables: pollution and exponential pollution, produced statistically significant relationships with destination image.

Serbia Case: As in the global case, the hypothesis H8 is confirmed. Statistically environmental construct, based on the observable variables: level of smell and level of noise, produced statistically significant relationships with destination image.

H9: Economic sustainability has a positive impact on the destination quality. (Global: Not Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H9 is not confirmed. The economic construct, based on the observable variables: arrivals, expenditure and number of international meetings, did not

produce statistically significant relationships with any of the destination brand equity elements including quality

Serbia Case: The hypothesis H9 is confirmed.

Statistically economic construct, as a part of joined socio-economic construct has significant relation with the destination quality as shown in Figure 7.4., p. 154.

H10: Social sustainability has a positive impact on the destination quality. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H10 is confirmed. The economic construct, based on the observable variables: government effectiveness, competitiveness index and using internet for B2B, produced statistically significant relationships with all of destination brand equity elements including destination quality

Serbia Case: As in the global case, the hypothesis H10 is confirmed. Statistically socio-economic construct produced statistically significant relationships with all the elements of destination brand equity including destination quality.

H11: Environmental sustainability has a positive impact on destination quality. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H11 is confirmed. The environmental construct, based on the observable variables: pollution and exponential pollution, produced statistically significant relationships with destination quality.

Serbia Case: As in the global case, the hypothesis H11 is confirmed. Statistically environmental construct, based on the observable variables: level of smell and level of noise, produced statistically significant relationships with the elements of destination quality.

H12: Economic sustainability has a positive impact on the destination loyalty. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H12 is confirmed. The economic construct, based on the observable variables: arrivals, expenditure and number of international meetings, produced statistically significant relationships with any of the destination brand equity elements including loyalty.

Serbia Case: Hypothesis H12 is confirmed.

Statistically economic construct, as a part of joined socio-economic construct has significant relation with the destination loyalty as shown in Figure 7.4., p 154.

H13: Social sustainability has a positive impact on the destination loyalty. (Global: Confirmed; Serbia: Confirmed)

Global Case: The hypothesis H13 is confirmed. The economic construct, based on the observable variables: government effectiveness, competitiveness index and using internet for

B2B, produced statistically significant relationships with any of the destination brand equity elements including loyalty.

Serbia Case: As in the global case, the hypothesis H13 is confirmed. Statistically socio-economic construct produced statistically significant relationships with destination loyalty.

**H14: Environmental sustainability has a positive impact on the destination loyalty.
(Global: Not Confirmed; Serbia: Confirmed)**

Global Case: The hypothesis H14 is not confirmed. The environmental construct, based on the observable variables: pollution and exponential pollution, did not produce statistically significant relationships with destination loyalty.

Serbia Case: The hypothesis H14 is confirmed. Statistically environmental construct, based on the observable variables: level of smell and level of noise, produced statistically significant relationships with the elements of destination loyalty.

8. DISCUSSIONS AND FUTURE RESEARCH

This chapter reviews the final comments on the findings presented in the thesis and elaborates on the theoretical impacts, managerial relevance, research limitations and future directions of the research.

8.1. Evaluation of Research Outcomes

This thesis attempts to formulate a theoretical concept of the impact that tourism destination sustainability has on destination brand equity and destination branding. The study follows the work of Gartner (2014) who states that destination brand equity development and destination sustainability become one and the same process in the long run. However, the same author offered no clue how to measure or prove the concept, creating a gap in the research literature on the impact of destination sustainability on destination brand equity development. Consequently, this thesis offers an exploratory effort to fulfill the gap.

To prove the impact of sustainability on destination brand equity it is necessary to prove causality between the two entities. First, causality relationship between the individual elements of destination sustainability and destination brand equity must be examined in the one-to-many scenario. Each element of the destination sustainability (economic, social and environmental) needs to be analyzed against all elements of the destination brand equity (awareness, image, quality and loyalty). Second, causality between the overall sustainability and the overall destination brand equity must be proved in the one-to-one scenario. In both cases, causality is established using structural equation modeling as a part of the multivariate statistical analysis technique.

Using two sets of different empirical data, the global and case of Serbia, the thesis proves two major hypotheses a) “destination sustainability impacts destination brand equity”, and b) “destination sustainability and destination brand equity are two parallel development processes that become one and the same process in the long run”. The findings contribute to the research literature on tourism destinations and destination sustainability by proposing the framework in which other relationship and issues can be tested, recognized, and managed.

Moreover, the thesis is concerned with the interest of the destination researchers and scientists on the influence that tourism destination economic, social and environmental forces have on the elements of destination brand equity: awareness, image, quality and loyalty.

For the last three decades the social, economic and environmental concepts are recognized and theoretically evaluated as the components of the sustainable development. On the other hand, the brand equity concept of a tourism destination is a recent theoretical construct. The concept is based on the earlier theoretical works and models developed by Aaker, Keller and others. Aaker and Keller proposed the most popular theoretical paradigms for evaluating the brand equity concept known as customer-based brand equity model (CBBE).

Also, plethora of scientists contributed to the brand equity research effort. However, for the research interest in this thesis a more refined set of scientific literature on tourism destination brand equity and on destination sustainability was selected.

Furthermore, the proposed model outlines the concepts of tourism destination brand equity and destination sustainability as two parallel processes integrated into one as captured in

the proposed model. The thesis is primarily concern with the impact that sustainability has on destination brand equity in the tourism context. In that regard, the study uses the research literature on the influence that destination sustainability development has on tourism destination branding process. The theoretical foundation of the sustainability research literature is based on the original form of integration model, social exchange theory, holistic approach and integrated theoretical framework. However, the theoretical foundation for the destination brand equity development is borrowed from Aaker's and Keller's CBBE model.

The primary goal of the study is to confirm that sustainable destination development impacts destination brand equity. The second goal of the study is to prove that sustainable development of a destination and destination brand equity development effort could become one process in the long run. In that regard, the study proves the similarity of the two processes by using the correlational relationship between the second-order elements in SEM analysis of both destination brand equity and destination sustainability. The SEM analysis shows that destination sustainability and destination brand equity are highly correlated, indicating that one construct is significantly explained by the other and vice-verse. Moreover, in the SEM, the relationship between two exogenous variables is both correlational and causal. This confirms that destination sustainability and destination brand equity are dependent on each other in the long run. For the theoretical evaluation and consideration, this thesis proposes a multidimensional conceptual model for the statistical testing and confirmation. Based on the proposed multidimensional model, the study unifies the previous empirical findings outlined in the research literature.

First, the study adopts Aaker's customer-base brand equity model consisting of the four elements: destination awareness, destination image, destination quality and destination loyalty. Also, the thesis uses economic, social and environmental elements for the sustainability as a part of the proposed model. The elements of the model are operationalized based on the two data sources: global and Serbia. The proposed model is constructed by merging the Aaker's CBBE model and the destination sustainability concept into one model.

In the global scenario the proposed model was operationalized into the six isolated latent elements using indicators from the global databases, because destination awareness and quality are operationalized as an individual element by EFA analysis in stage 1. The "awareness & quality" latent element was defined by four observable variables (indicators): effectiveness of marketing, sustainability of travel & tourism, tourism infrastructure and prioritization of travel & tourism. In the following stage 2, CFA analysis has further reduced the number of observable variables in the awareness & quality element to two: marketing effectiveness and tourism infrastructure.

The SEM analysis recognizes social element as the most dominant element of the model, indicating that the social element affects all other elements in the model including economic and environmental ones. Findings in the thesis suggest that tourism destinations with higher levels of social sustainability are more developed and have higher value of brand equity.

Further, in the global model, the economic sustainability affects only destination loyalty while environmental element impacts destination loyalty, awareness and quality. Also, findings show that destination loyalty is influenced by the social element as well as the destination awareness and quality. This is in line with the earlier literature on the destination branding where awareness and quality are considered antecedents of loyalty.

In the singly country case, which is based on the survey data from the international tourists visiting Serbia, the analysis mostly confirms the findings in the global case. The operationalization of the data from the case of Serbia produced three sustainability elements: social, economic and environmental. The social and economic elements are jointly operationalized as socio-economic element defined by two exogenous observable variables: “reasonable prices” and “value-for-money”. Next, the path analysis shows that social and economic elements only affect destination quality, image and loyalty but, show less impact on the environmental element. In fact, the study confirms the impact of destination awareness and quality on the single element of destination loyalty. The relationship is supported by the earlier research literature.

Furthermore, the thesis revealed that results obtained from the global and Serbia case produced the multidimensional conceptualization of the proposed model, which is in line with the works of Aaker and Keller. Also, the study, in the global scenario integrates destination awareness and quality in one element. Keller places both elements at the bottom of its hierarchical model and suggest that overlapping is possible. Also, some earlier studies support the concept that quality suggests cues for the recall and recognition of a destination. On the other hand, the Serbia case integrated image and loyalty in one element which Keller’s pyramidal model places at the very top of the hierarchical structure, showing, that the two items overlap at the measurement level. Also, social and economic elements in the case of Serbia are integrated into one element defined by “value-for-money” and “reasonable prices”.

In the global case observable variables are selected from the pool of available global indicators either from internet or directly from the data source. Since the research literature where global indicators are used is scarce, the thesis relies on the theoretical foundation to make the best possible match between indicators and theory. On the other hand, in the Serbia case observable variables are survey based supported by the research literature. Therefore, it is not likely for observable variables to be the same in both datasets. At most, they can be similar.

Next, the economic sustainability is defined in the global case as a latent variable consisting of “arrivals” and “expenditure” indicators. In the case of Serbia, the economic latent variable was defined as “investments”, “infrastructure”, and “can make money”. However, all three variables were dropped by the measurement model analysis.

In the case of Serbia and in the global case the main hypotheses H1 and H2 are confirmed in the second order structural path analysis. The impact of the isolated sustainability elements “environmental” and “social” on the second order destination brand equity construct is tested and confirmed. The impact of the second order destination sustainability on the second order destination brand equity confirms the H1 hypotheses. Since the path analysis shows strong causality between the second order destination sustainability and the second order destination brand equity, the conclusion is that the two elements significantly explain each other and therefore, are similar in nature, intensity and direction. In other words, if destination sustainability changes by a certain value the destination brand equity changes by the same intensity, direction and nature. This confirms the H2 hypotheses.

Finally, the environmental sustainability latent variable was defined in the global case as a construct of two pollution indicators which created negative correlations with other factors. This is expected since the environmental variable is defined by two pollution observable variables which causes negative impact on both destination sustainability and brand equity

factors. Similarly, in the case Serbia, the environmental latent variable was operationalized with the “level of smell” and “level of noise” variables. Finally, the earlier research shows that the socio-economic element is influenced by the quality of destination resources, which places tourists into the co-creation role at the destination value exchange level.

Both global and case of Serbia confirm the first two major hypotheses. The global case confirms ten out of fourteen hypotheses while all fourteen hypotheses are confirmed in the case of Serbia. The global case could not confirm impact of environmental sustainability on destination loyalty and the impact of economic sustainability on destination awareness, image and quality.

Finally, as mentioned earlier, the results of the study are presented in Table 7.18., on page 158, show 4 out of 14 unconfirmed hypotheses: H3, H6, H9 and H14 in the global case, and all confirmed hypotheses in the case of Serbia.

Conclusion is that the proposed model was applied on two different datasets producing significant similarity in the outcome. This leads to the conclusion that the statistically obtained results support the notion of universality and robustness of the proposed model.

8.2. Theoretical Implications

The subject of destination brand equity and its causal (correlational) relation with the destination sustainability is empirically confirmed in this thesis. Furthermore, the thesis augments an understanding of the impact that both destination sustainability and its elements, recognized by the tourism sustainability research literature as social, economic and environmental sustainability, have on the destination brand equity and its elements, identified in the tourism research literature as destination awareness, image quality and loyalty. The thesis captures the multidimensional nature of causal relations and heterogeneous patterns of the destination resources dissipation process in the proposed model, which sufficiently explains the intricate details between the destination sustainability and brand equity domains.

The thesis addresses the gap in the tourism destination scientific literature on the impact of sustainability and its elements on the elements of destination brand equity by confirming the impact that destination sustainability development has on the development of the tourism destination branding in general, and destination brand equity in particular. More specifically, the thesis highlights the causal relations between the heterogeneous elements of both destination sustainability and brand equity. It confirms the dominant part of the social element as the driving force of all other elements in the proposed model.

Moreover, the benefits of the social and economic sustainability element are emphasized in the context of the perception of socio-economic construct, and the need to understand the advantages of destination tourism in both country-specific and tourist-specific context. In the country specific context, based on the global data operationalization, using selected indicators, the social and economic factors emerge as the most dominant constituents. In the global context, social sustainability shows both direct and indirect influence on the destination loyalty, direct influence on destination image, and both direct and indirect influence on destination quality and awareness. In the global setting, destination awareness and quality are extracted in the EFA as a single isolated element. The indirect impact of the social dimension on loyalty is imposed through the mediating effect of economic sustainability, environment sustainability,

destination awareness and destination quality while indirect impact on destination awareness and quality is imposed through the mediating role of environmental sustainability. This confirms the findings of Diedrich and Garcia-Buades (2009) who suggest that social effects are present throughout the destination.

In the context of the case of Serbia, the social and economic sustainability elements show strong dominant role. First, in the case Serbia, the social and economic sustainability is operationalized as the joined socio-economic construct which is in line with the previous theoretical considerations of a social and economic elements in the tourism destination research literature. The value-for money is recognized as a part of the socio-economic construct which is supported by the literature suggesting exchange of resources in the social setting between individuals or groups. However, the question is still whether socio-economic construct is an independent proposed model dimension or a member of the more complex social or economic dimension, which requires further investigation.

In the global scenario, destination awareness and quality are measured as a single construct of the proposed model. The same scenario shows that destination awareness and quality impose significant direct impact on destination loyalty which is in line with the theoretical research on the subject.

Similarly, in the Serbia case, destination awareness and quality are measured as isolated elements of the proposed model. Also, both dimensions are statistically confirmed by environmental sustainability factor, showing significant indirect mediating effect on the single element of destination image and quality as suggested by research literature.

Findings of the thesis are corresponding to the earlier research on tourism destination. The thesis confirms the multidimensional structure to the proposed model, which encapsulates the aspects of social sustainability, economic sustainability, environmental sustainability, destination awareness, destination image, destination quality, and destination loyalty as standalone proposed model dimensions.

Moreover, the structural path analysis of the causal relations with the proposed model, are in line with the earlier research outcomes showing positive causal relationships between social sustainability and the elements of the destination brand equity, here presented as destination awareness, image, quality and loyalty. At the same time, the path analysis confirms the positive relationship between social element with the rest of the sustainability elements environmental and economic sustainability. However, as mentioned earlier, the structural path analysis of the proposed model does not explain causal relations between environmental sustainability and destination loyalty in the global case.

However, the question is if the economic element is a standalone isolated element of the proposed model which requires further investigation. At the same time, the failure of the economic sustainability to contribute towards explanation of the destination brand equity elements, shows weak causality and brings up the question of the relevance and the role economic sustainability plays in the destination brand equity creation process. In the global scenarios, more research is required with different observable economic variables to provide better fit between data and the model. In other words, a set of global indicators need to be filtered out from the global datasets for better results. In the survey scenarios, the task of selecting or changing variables is more flexible and precise since the development of the research instrument is in the domain of a researcher. In this thesis, the global economic

construct is drawn from two observable global variables (indexes): country average tourist arrivals and expenditure. In the survey scenario the same construct is extracted as a dual latent variable denoting the social and economic element consisted of “value-for-money” and “reasonable prices”. The latter being associated with the economic domain while the former is related to the social one. The research exercise in this thesis suggests that to prove the economic construct as a standalone isolated element, more observable variables for both global and survey scenarios are needed.

In the global case all three elements of the destination sustainability economic, social and environmental show positive influence on destination loyalty. The Serbia scenario mostly confirms the global case. The same is the case with destination quality. In the survey scenario Serbia destination image is influence by all tree sustainability elements while in the global scenario it is influenced only by social sustainability element. Destination awareness, on the other hand, is influenced by all sustainability elements in the survey case and only by social and environmental elements in the global case.

The findings of the structural path analysis, in both global and case Serbia, suggest that perceived benefits, combined with perceptions of power to achieve them, will result in trust and community endorsements that will influence tourism policies. Moreover, residents of the prospective tourism destination will support development if they perceive that benefits outweigh the costs. In other words, the more positive influence of the social sustainability element on the other elements of sustainability and the elements of destination brand equity, the more support from the local community to develop a tourism destination.

Furthermore, the study tests and confirms the significant relationship between the socio-economic construct, representing by economic and social elements and destination loyalty, which is supported by the earlier research literature. The case of Serbia confirms significant acceptable estimated structural relation between social and economic constructs based and a single construct marked as destination image and loyalty. Also, the same analysis confirms significant correlation between joint social and economic construct (socio-economic) and destination quality.

The findings suggest that monetary benefits are significant factor in generating desired individual level of service and positive behavioral intentions. However, the open question is how tourists’ resources, other than monetary costs and benefits, such as travelling time, trip preparation, accessories required for travelling, physical exercises and other travel preparations before the journey contribute to the perceived quality of the overall travelling experience

The most important finding of the study, which earlier research literature missed to cover, is confirmation of the impact that destination sustainability has on destination brand equity. It is confirmed that the changes in the environmental, social and economic factors influence changes in the tourists’ perception of the tangible and intangible values of a tourism destination.

The second most important finding is that the destination sustainable development and destination brand equity development efforts require same space, resources and support. The causality is confirmed in the structural path analysis between the second order destination sustainability element and the second order destination brand equity element. The results show multicollinear relation between the two factors suggesting similarity to the level of no difference between the constructs. The second order path analysis confirmed that any move in the destination sustainability results in the corresponding change of the destination brand equity

in terms of direction, intensity and nature. Finally, with the confirmation of both major hypothesis, there is a need to understand behavioral input of different tourist segments and how to incorporate them into the proposed model.

8.3. Managerial Implications

Since a destination can be viewed as a marketing offering wrapped into experiential choices and products it can be looked upon as a value chain. Therefore, the proposed model supplies destination managers with an opportunity to develop a tool for evaluating tourism destinations such as countries, regions, cities, islands and others in managing total destination experience from the tourists' point of view.

To make brand information useful for the decision-making process, managers, marketers, developers and stakeholders, a trend of "longitudinal" studies are needed to track destination brand activities and performances. Planning of any destination development must incorporate sustainability elements and practices. In particular, the emphasis should be given to the social elements that besides monetary benefits and costs, must include institutional and legal instruments of trusts and power.

Also, destination managers and developers must consider environmental issues to secure that natural destination resources will be there for the future generations. The study points on the effects of pollution, however, the list of issues is long. The number of possibilities for the environment to deteriorate are enormous as the global demand for resources is growing exponentially driven by the increase in population and standards of living. The study suggests that managing environmental issues can improve destination loyalty, awareness, quality and image and, hence, destination brand equity by providing an input for initiatives for policy development.

The analysis in the thesis supports that environmental impact, say pollution, smell, and noise, can influence destination awareness, image, quality and, to some extent, loyalty. Similarly, social impact is evident on all destination brand equity elements in global and in the case of Serbia domain. In the survey scenario, perception of the observable variables value for money and reasonable prices, which exploratory factor analysis (SPSS) confirmed as one factor, is the bases for the social and economic evaluation of a destination causing change in the motivation and forming of a decision-making set.

Social aspects are important part of visiting a destination suggesting that well-trained, polite, professional and qualified personnel at the tourism organizations and accommodation facilities can contribute that tourists feel cozy, welcome and experience value for money. Social engagements are possible and occur regularly during travelling. The social contacts are caused by a relaxing atmosphere, meeting other people and sharing experiences, thoughts and feelings.

Another excitement as result of the value for money are experiences from shopping products and services in another part of the world. Different prices, choices of products and services in different areas of the world bring excitement and positive feelings which contribute to the overall happiness. Research literature supports that consumer-value conceptualization corresponds to the positive relationship between value-for-money and the perception of destination resources. Some authors suggest that value-for-money experience can be obtained

from tourists by interviewing them. Other authors consider value for money as a functional value formed by the perception of price and quality, and because quality and price have affective perceived value the value for money belong to the emotional and social domain. Value for money is also related to the social image and self-image and to the perception of intangible, functional and social destination resources.

Reasonable price is considered a perceived consumer value as a result of the difference between the economic benefit and economic cost, which indicate “reasonable” value or price as a part of the economic sustainability. Some authors place reasonable price in the destination brand value context while others suggests reasonable price should be evaluated outside of the destination brand equity model as a separate item, rather than as its integral part.

As stated earlier, motivation to visit a destination will depend on the outcome or exchange between the benefits versus cost. If the cost (loss) prevails a destination in question will not be in the decision set. Therefore, the exploitation of the destination resources for the economic benefit is only partially evaluated in the context of impact on sustainable destination development. The global case confirms that economic sustainability is an important factor for managing a destination. Specifically, the study points to the importance of managing social and economic issues to improve destination awareness, image and quality and consequently destination brand equity.

However, the most important finding of the study is that environmental development and to some degree economic development of a destination must occur under the umbrella of the social sustainability framework. For the tourism destinations to thrive they must impose legal framework to protect the overuse of the destination resources and provide favorable ground for tourists’ experiential consumption of those resources. Safety and legal protection are considered as significant social factors.

In particular, the monitoring of the proposed model’s constituting elements prior, during and after the experiential events, including festivals, winter and summer recreation, new destinations, promotion of destination offerings, allow insight into the efficiency and effectiveness of the destination management, marketers and planners. Moreover, the monitoring offers a good foundation for the forecasting and proactive planning activities that will assure a proper balance between tourists’ demand and destinations’ supply of resources.

According to the proposed model, dimensions of destination sustainability drive the value of destination brand equity. This has important managerial implications. For one purpose, destination sustainability dimensions give destination brand equity a critical strategic bridge from the past to the future which is a first step in the formation of the future destination brand value.

8.4. Research Limitations

The complexity of the proposed model and difficulties in obtaining global and survey data as well as chartering new theoretical territories result in several limitations in the study. The need to improve the proposed model drives the number of limitations in the thesis. The number and operationalization of the relevant global indexes in the global case as well as the number and the formulation of survey questions and, their operationalization in the case Serbia, are the major sources for the limitations in the thesis.

The most obvious limitation of the thesis is that not all hypotheses are confirmed, though, the great majority are, including the major ones. Obviously, confinement to two global observable variables arrivals and expenditure, are limiting economic dimension to have more significant relations with other latent variables in the proposed model. This is also general limitation to the model since most of the latent constructs have two observable variables.

Similarly, environment dimension has been reduced to only two global observable variables pollution and exponential pollution. On the other hand, destination image and destination awareness need more observable variables to improve the proposed model with better path relations between the latent variables. Another issue is duality in the latent variable constructs. In the global case, destination awareness and quality are represented by a single element.

The similar issues are found in the Serbian scenario where destination image and loyalty as well as social and economic sustainability are grouped into a single element. Also, environmental and economic constructs need to be improved by more observable variables. In other words, the survey, which currently has 33 questions, needs to expand to cover more ground in all areas. Therefore, there is a need to expand social, economic and environmental segments.

Also, in the global data scenario, the p value, in the goodness of fit statistics, never meets the 0.05 criteria. The same is the case in the Serbian data scenario. The theory suggests sensitivity of the p number to the size of data and confirms that it would be difficult to get higher p values for a small data size.

Similarly, p of close fit (PCLOSE) in the global scenario is just under the threshold of 0.05. However, RMSEA is always under 0.8 threshold which is a very good result. Since RMSEA is always used in combination with PCLOSE the issue is acceptable. Similar limitations exist in the Serbia scenario except for the second-order path analysis where p value of 0.002 is not meeting the threshold. Also, in depth evaluation of the measurement model would be difficult to analyze because of the small sample size (n=384) and the high proposed model complexity.

The other limitation comes from the fact that the Serbia scenario applies only on actual tourists but misses potential visitors since they were out of the scope of the survey. Another potential limitation is that the survey is conducted in Belgrade not throughout Serbia. It is a common practice in the research of a country to base their survey in a highly popular location of the country rather than spread the survey around. The reason is that the tourists' perceptions and excitement are the strongest and more pronounced in the most popular destination in comparison to the less popular ones.

The thesis supports notion that among foreign tourists Belgrade is a valid representative of Serbia based on two premises. First, most of the foreign tourist, about 57%, who come to visit Serbia visit Belgrade. Second, Belgrade is the administrative center and the most developed tourism destination in Serbia which account for most of the tourism monetary benefits. It is used as a hub for variety of travel experiences throughout other destinations in Serbia.

Many previous studies on the subject encountered problems with operationalizing destination awareness, which is also the case in this study. Therefore, different structural approach is needed to improve operationalization of the destination awareness construct.

Similar issue is with the timing of data collection which effects surveys in the case Serbia. Some researchers suggest that data should be taken upon return from the destination to allow for impressions to settle and mature in scope, intensity and substance. Implementing temporal analysis and evaluation of the proposed model will increase theoretical validity, reliability, and managerial effectiveness and applicability. However, in the case of Serbia scenario this could create a problem and difficulty to logistically administrate survey in the multiple countries. Therefore, priority should be given to the global data that has already factored in the time and spatial dimension.

Another issue is related to the differentiation of destination awareness and quality in the global case and of destination image and loyalty as well as social and economic sustainability in the case of Serbia where pair of two elements form a single dimension in the proposed model. In the global case, limitation is the fit of the proposed indicators with the elements of the proposed paradigm. To improve suitability between the global data and the model a search for more appropriate global datasets is needed. In the survey case more observable variables for each latent variable are required. In the global case the number of country data should be higher preferably over 150 with the percentage of missing data under 10%. Further limitation is lack of proper constructs adequate to adopt higher levels of cognitive and affective attachment to the brand, intention to visit and revisit, paying premium, communications involving the destination, information browsing and etc.

The other limitation come from the proposed model itself since number of missing values in the global scenario is high. The reason is the difference in the size of indicators who come from different data sources covering different number of countries. Also, the number of missing values limits the size of the dataset. In our study, the number of indicator instances, obtained from the global databases, range from 61 (IMD) to 187 (Transparency International and World Bank). The good news for the future research is that the gap is narrowing with number of instances on the increase since more countries take part in the global surveys.

Another limitation of the global model is inability to test different market segments. Nevertheless, the thesis proposes a model that is applicable for continents, regions, countries, sovereignties, municipalities and destinations with higher or lower geographical levels. Finally, availability of the global data is an issue. Increase in the demand for global data are causing that majority of the global data sources are moving or considering moving from the public domain into the more financially attractive private domain. The trend has a potential to financially burden many research projects outside of the institutional financial umbrella.

8.5. Proposal for Future Research

The future research efforts should be channeled into two directions. Priority should be given to address and remedy the limitations met in the current study. At the same time, new avenues to improve, expand and make the proposed model more robust should be explored. Also, theoretical applicability of the proposed model for the practical applications in the areas of destination sustainability and brand equity is a challenge that the proposed model is expected to fulfill and provide. Furthermore, transformation of the proposed model's promise into the development tool for the destination management and destination marketing organizations (DMOs) is the goal of the future endeavors.

Implementation of the proposed model is expected to make a significant step forward in marrying the destination sustainable development with destination brand equity development effort into one integrated process with a common goal.

First, future data collection, both the global and the case of Serbia, needs to be addressed based on experiences and obstacles that we learned in the process. The global data has its own advantages and disadvantages. The advantage is that, in most cases, when data comes from the reputable databases, data are normalized, valid and reliable. The disadvantage is that the size of indicators differs, and that the mix of the countries covered is different from one indicator to the other causing missing data issues. Also, there is an issue with outliers, when the size of the data related to the same features significantly differ between countries. But, the most important aspect for the future research should be finding global indicators that closely match the operationalization goals of the study.

Along the same line, the case of Serbia survey data needs to be expanded in the areas of observable variables to allow for better operationalization and measurement of the latent variables. The future data surveys need to cover, potential travelers, not just the actual ones. This would require some more complex and challenging procedures.

Furthermore, the issues related to the destination awareness need to be addressed in the future research efforts. The number of observable variables needs to increase in depth and breadth to allow for better coverage of the strength of associations in the tourists' minds about a destination. This applies to all dimensions of the proposed model in both global and case of Serbia scenarios. In addition, the future research efforts should expand into different regions, such as Southeast Europe, cities, municipalities, resorts and geographical and scenic destinations.

The time of the data collection should be addressed in the survey cases. That would require collection planning to be taken to another level for which more resources are needed. In the global case scenario, that means more effort for screening those indicators that already have factored in the time dimension. That may not be as easy as it sounds, since most of the indicators, may not follow the requirements of the proposed model.

To alleviate the problems with dual latent variables such as a single dimension for destination loyalty and image in the Serbia case, more relevant observable variables should be included as survey questions. Testing data from the point of different market segments may be a problem with the global data but should not be a problem with the survey data since demographics or other categories can be easily implemented in the survey. However, testing the model for different segments is an attractive direction for the future research.

Also, the theoretical applicability of the proposed model for the practical applications in development of destination branding, brand equity and sustainability is a plausible option and the ultimate goal of this thesis. For the destinations to thrive the factors relevant for the destination development, exploitation, profitability, and management must be incorporated under the umbrella of sustainability.

Therefore, transformation of the proposed model's promise into the development and management tool for the destination management, destination marketing organizations (DMOs), and all other relevant institutions and stakeholders, places the proposed model into the middle of the destination development process.

APPENDIX A: Research Instrument for Global Data

Name	Year	Type	Dataset	# C	Sub-Indicators
Social Indicators					
Social Wellbeing	2016	Statistics	Sustainable Society Index	151	¹ Sufficient food, Sufficient to drink, Sanitation, Education, Healthy Life, Gender Equality, Income Distribution, Population Growth, Good Governance (9)
World Corruption Index	2018	Survey	Transparency International	187	Free and Fair Elections, Strong Independent Institutions, Political Rights, Civil Rights
World Talent	2017	Survey, Statistics	IMD	61	Investment & Development, Appeal, Readiness.
National IQ	2012	Survey	Ulster Institute for Social Research	180	
World Happiness Report	2018	Survey	Helliwell, J.F.; Layard, Richard; Sachs, Jeffrey D.	149	Explained by: Income, social support, life expectancy, freedom, generosity, and corruption
Safety Index	2018	Survey	Numbeo	70	
Health Care Index	2018	Survey	Numbeo	70	
Individuals Using Internet	2017	Statistics	Crotti & Misrahi 2017	136	
Fixed Broadband Subscriptions	2017	Statistics	Crotti & Misrahi 2017	136	
Government Effectiveness Index	2017	Statistics	World Bank	187	
Mobile Phone Subscriptions	2017	Statistics	Crotti & Misrahi 2017	136	
Environmental Indicators					
Environmental Performance Index	2018	Statistics/Survey	Yale and Colombia University	171	Environmental Health (40%), Ecosystem Vitality (60%), 24 indicators

Environmental Wellbeing	2016	Statistics	Sustainable Society Index (SSI)	151	³⁷ Biodiversity, Renewable Water resources, Consumption, Energy Use, Energy Savings, Greenhouse Gases, Renewable Energy (7)
Protected Territories	2017	Statistics	The World Bank	176	
Drinking Water	2015	Statistics	The World Bank	86	
Environmental Awareness	2017		Crotti & Misrahi 2017	82	
Pollution Index	2018	Statistics	Numbeo	98	
Exponential Pollution Index	2018	Statistics	Numbeo	98	
Improved Water Source	2015	Statistics	The World Bank		
Per Capita Fossil Fuel Emission Rates	2014	Statistics	Carbon Dioxide Analysis Information Center	179	
Natural & Capital Resources Sub-index	2017	Statistics/Survey	Crotti & Misrahi 2017	136	
Environmental Democracy Index	2018	Statistics/Survey	World Resource Institute	75	
Climate Index	2018	Statistics	Numbeo	70	
Economic Indicators					
Inbound Overnight Arrivals	2015-2017	Statistics	UNWTO 2015-2017	167	
Inbound Overnights	2015-2017	Statistics	UNWTO 2015-2017	135	
Inbound Overnights Expenditure	2015-2017	Statistics	UNWTO 2015-2017	148	

Tourism Expenditure over Exports of Goods and Services	2015-2017	Statistics	UNWTO 2015-2017	146	
Inbound Tourism Expenditure over GDP	2015-2017	Statistics	UNWTO 2015-2017	113	
Tourism Coverage Inbound over Outbound	2015-2017	Statistics	UNWTO 2015-2017	155	
Total Travel & Tourism Contribution to GDP	2015-2017	Statistics	UNWTO 2015-2017	123	
Economic Wellbeing	2016	Statistics	Sustainable Society Index (SSI)	151	Organic Farming, Genuine Savings, GDP, Employment, Public Debt (5)
Number of International Association Meetings	2017	Statistics	Crotti & Misrahi 2017	122	
Awareness Indicators					
Awareness Index	2015	Survey	Travel Image	96	Knowledge, Ability to rank
Attractiveness Index	2015	Survey	Travel Image	96	Experience, impression
Google Trend Awareness	2018	Survey	Google Trend	199	Trend in the number of country name appearing in search
Effectiveness of Marketing	2017	Survey	Crotti & Misrahi 2017	136	
Image Indicators					
Image Index	2015	Survey	Travel Image	96	Awareness and Attractiveness

Travel & Tourism Competitiveness Index	2017	Survey/Statistics	Crotti & Misrahi 2017	136	14 Pillars
The Global Competitiveness Report	2018	Survey/Statistics	Crotti & Misrahi 2017	136	Enabling Environments, Human Capital, Markets, Innovation Ecosystem
Digital Competitiveness	2018	Survey/Statistics	IMD	63	Knowledge, Technology, Future Readiness 62
Country Brand Strategy Ratings	2017	Statistics	Crotti & Misrahi 2017	136	Value System, Quality of Life, Business Potential, Heritage & Culture, Tourism, Made In
Country Brand Rankings	2018	Survey	WEF Bloom Consulting	168	Economic Performance, Digital Demand, Country Brand Strategy & Online Performance
Number of World Heritage Natural Cites	2017	Statistics	Crotti & Misrahi 2017	136	
Natural Tourism Digital Demand	2017	Statistics	Crotti & Misrahi 2017	136	
Oral and Intangible Cultural Heritage	2017	Statistics	Crotti & Misrahi 2017	136	
Attractiveness of Natural Assets	2017	Survey	Crotti & Misrahi 2017	136	
Number of World Heritage Cultural Cites	2017	Statistics	Crotti & Misrahi 2017	136	
Sports Stadiums	2017	Statistics	Crotti & Misrahi 2017	136	
Cultural and Entertainment Tourism	2017	Statistics	Crotti & Misrahi 2017	136	
Adventurous Index	2018	Survey	US News, BAV Group, Wharton	80	65 Country Attributes
Cultural Influence	2018	Survey	US News, BAV Group, Wharton	80	65 Country Attributes

Heritage	2018	Survey	US News, BAV Group, Wharton	80	65 Country Attributes
Quality Indicators					
Quality of tourism infrastructure	2017	Survey	Crotti & Misrahi 2017	136	
Number of Operating Airlines	2017	Statistics	Crotti & Misrahi 2017	136	
Quality of Roads	2018	Survey/Statistics	Numero	70	
Global Infrastructure Quality	2018	Survey	Statista	100	
Staff Training	2017	Survey	Crotti & Misrahi 2017	136	
Internet Use for B2B	2017	Statistics	Crotti & Misrahi 2017	136	
Purchasing Power Parity	2017	Statistics	Crotti & Misrahi 2017	136	
Sustainability of travel and tourism industry development	2017	Survey	Crotti & Misrahi 2017	136	
Quality of Air Transport	2017	Survey	Crotti & Misrahi 2017	136	
Airport Density	2017	Statistics	Crotti & Misrahi 2017	136	
Prioritization of Travel & Tourism	2017	Survey/Statistics	Crotti & Misrahi 2017	136	
Airport Charges & Taxes	2017	Statistics	Crotti & Misrahi 2017	136	
Hotel Price Index	2017	Statistics	Crotti & Misrahi 2017	136	
Ground Transport Efficiency	2017	Survey	Crotti & Misrahi 2017	136	

Hotel Rooms	2017	Statistics	Crotti & Misrahi 2017	136	
Tourist Service Infrastructure	2017	Statistics/Survey	Crotti & Misrahi 2017	136	
Quality of Life	2018	Survey/Statistics	Numbeo	70	
Purchasing Power Index	2018	Statistics	Numbeo	70	
Price Competitiveness	2017	Statistics	Crotti & Misrahi 2017	136	
Traffic Commute Time Index	2018	Statistics	Numbeo	70	
Quality of Nationality Index	2017	Statistics/Survey	Henley & Partners. Kälín and Kochenov's Index	175	Human Development, Economic Strength, Peace & Stability, Settlement Freedom, Travel Freedom.
Loyalty Indicators					
Country Brand Index	2017	Statistics	Crotti & Misrahi 2017	75	
Nations Brand	2018	Survey	BrandFinance	100	
Country Index	2017	Survey	FutureBrand	82	
Cost of Living	2018	Statistics	Numbeo	70	

APPENDIX B: Research Instrument for Case of Serbia

Items	References
Destination Brand Awareness	
AW1. Serbia has a good name and reputation	Konecnik& Gartner (2007), Boo et al., (2009), Pike et al., (2010)
AW2. Serbia is a famous destination	
AW3. Characteristics of Serbia come to my mind quickly	
AW4. When I am thinking of travelling, Serbia comes to my mind quickly	
AW5. Do you see ads on Serbia often	
AW6. Is Serbia a popular destination	
36	
Destination Brand Image	
IM1. Serbia fits my personality	Konecnik & Gartner (2007), Boo et al., (2009), Pike et al., (2010)
IM2. My friends will think highly of me if I visit Serbia	
IM3. Visiting Serbia reflects who I am	
IM4. Serbia offers relaxing atmosphere	
IM5. Serbia offers excellent entertainment	
Destination Brand Quality	
Q1. Quality of services in Serbian tourism is in general high	Aaker (1991), Konecnik & Gartner (2007), Boo et al., (2009), Pike et al., (2010)
Q2. Serbia provides high quality experience	
Q3. Serbia is superior as a tourism destination	
fQ4. Serbia performs better than expected	
Destination Brand Loyalty	
LO1. I enjoy visiting Serbia	Balogly (2001), Konecnik & Gartner (2007), Boo et al., (2009), Pike et al., (2010)
LO2. Serbia is my preferred choice for vacation	
LO3. I am emotionally attached to Serbia	
LO4. I will advise other people to visit Serbia	
LO5. I will visit Serbia again	
Destination Brand Socio-Economic Sustainability	
VA1. Serbia has reasonable prices	Boo et al., (2009)
VA2. Comparing to other destinations visiting Serbia is good value-for-money	
Destination Social Sustainability	
SO1. Staff in restaurants, hotels and stores are very friendly	Chekalina et al., (2016)
SO2. I like behavior of other tourists	
SO3. I feel safe in Serbia	
Destination Economic Sustainability	
EC1. I noticed that investments are made to attract tourists	Iniesta-Bonillo, et al., (2016)
EC2. Serbia has good infrastructure	
EC3. Serbia can make money from tourism	

Destination Environmental Sustainability

EN1. Level of pollution in Serbia is acceptable

EN2. Level of smell in Serbia is acceptable

EN3. Level of noise in Serbia is acceptable

EN4. Crowd levels are acceptable in Serbia

EN5. Serbia has visible practice in maintaining environment

Buckley (2012); Iniesta-
Bonillo, et al., (2016)

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