A THEMATIC ANALYSIS OF SUSTAINABLE

PRACTICES AT FOUR NATIVE AMERICAN

RESORTS

By

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Abstract: Native American resorts represent a unique segment within the hospitality industry. Since Native American resorts technically are owned by sovereign nations, regulations differ from non-native owned resorts. This provides a fertile opportunity for the implementation of comprehensive sustainable practices. Unfortunately, many individuals view sustainable practices as singular practices, at the same time, acknowledging that a continuous, practical approach to fix and transform the natural environment, human perception and behavior toward sustainable practices is necessary. In comparison, when viewing sustainable practices through the Sustainable Development Institute model of sustainability (SDI) the sustainable practices interconnect and effect multiple spheres simultaneously. To identify the sustainable practices preformed within Native American resorts, four resorts, Foxwoods Resort Casino of the Mashantucket Pequot Tribal Nation, Hard Rock Hotel and Resorts of the Seminole Tribe of Florida, Pechanga Resort and Casino of the Pechanga Band of Luiseño Indians, and Spirit Ridge (NK'MIP) Resort of the Osoyoos Indian Band were chosen based on multiple criteria, including geographic location. The identified practices were categorized and compared within the SDI model. The ability to examine sustainable practices and programs utilized within the four resorts yields a broad, more accurate knowledge of the effects of the sustainable practices. Thematic Analysis of publicly accessible online documents provides the data for analysis. Most of the sustainable practices at Foxwoods Resort Casino, Hard Rock Hotel and Resorts, Pechanga Resort and Casino, and Spirit Ridge (NK'MIP) Resort intersect multiple SDI model spheres. This research shows that similar sustainable practices can have unique, local flare that allows the resorts to have symbiotic relationships with local regions.

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That time is gone…

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That time too is gone …

Now the waters are polluted.

Our natural resources are all but gone and creation is dying …

It is time …

to find our way back to the earth.

Kevin Thunderhorse Wright (2015)

CHAPTER I

INTRODUCTION

The hospitality industry persists as one of the largest and fastest growing

industries due to an increase in the number of facilities, employees and customers

(DeGrosbois, 2012; Kilkenny, 2011; UNWTO, 2017). Even though hospitality remains a

customer focused industry and sensitive to current trends and political issues, the

hospitality industry lags in the implementation and communication concerning

sustainable practices (Clarke, 1997; DeGrosbois, 2012; Jones, Hiller, & Comfort, 2016;

Lim, 2016). Archeological evidence indicates that the Native American civilizations like

the Cahokian, Hohokam, and Olmec extensively applied sustainable practices throughout

their trade centers (Baires, 2015; Clark, 2008; Manitou Cliff Dwellings, 2019) and

current native owned resorts like Spirit Ridge and Hard Rock Hotels and Resorts apply an

array of sustainable practices (Centre for Sustainability, 2011; Cattelino, 2008).

Many scholars focus on the basis for the implementation of sustainable practices:

the human responsibility to preserve the earth (Clarke, 1997; Frost, Mair, & Laing, 2014;

Gill & Williams, 2011; Jayawardena, Pollard, Chort, Choi, & Kibicho, 2013; Lim, 2016),

a need to find alternative methods for energy, fuel, food, water, linen, plastics, and to

evaluate resource lifecycle (DeGrosbois, 2012; Hartwick, 1978; Solow, 1993).

Ironically, the hospitality industry endures as an unsustainable industry, not because of the industry age or fluidity (Bremner & Wikitera, 2016; Willow, 2010), but because of segmentation within types of facilities (Ayu-Oka-Suryawardani & Suryawan-Wirantna, 2016; Clarke, 1997; Garrod & Fyall, 1998), inability to combine practices from different departments, facilities, and industries (Erdogan & Tusum, 2009; Jones, Hiller & Comfort, 2016), large quantities of waste and pollution (DeGrosbois, 2012; Moreo, DeMicco, & Xiong, 2009; UNEP, 2017; Wan, Chen, & Huang, 2017), and guests 'pleasure mentality' while visiting hospitality locations (Tortella & Tirado, 2011). Basically, the hospitality industry is unsustainable due to the fragmentation and compartmentalization of each sustainable practice with the hope that a temporary patch will provide a long-term fix (Gill & Williams, 2011; Jayawardena et al., 2013; Kirk, 1995; Stump, 2010).

Based on these statements, the hospitality industry needs to enhance the application and consistency of sustainable practices throughout multiple business segments including food and beverage, activities, lodging, and tourism (Jayawardena et al., 2013; Kirk, 1995). However, universal sustainable programs and vague sustainable goals cease to be the answers to lowering the abysmal waste and air pollution statistics throughout the general hospitality industry (DeGrosbois, 2012; Moreo et al., 2009; UNEP, 2017; Wan et al., 2017).

Rodriquez-Anton, Abnso-Almeida, Celemin, and Rubio (2012) and Wan et al. (2017) are a few researchers who study the barriers against the implementation of sustainable practices in resorts. According to their studies, the barriers for not implementing sustainable practices encompass initial cost (Wan et al., 2017), employee

training (Chan, 2011), unclear regulations (Kim, Lee, & Fairhurst, 2016), and resistance to change (Rodriquez-Anton et al., 2012). Even within these studies, a concise understanding of how a resort communicates information to the public about the sustainable practices they implement minimally exist.

Within the resort segment of hospitality, tribal owned or tribal operated resorts lack research representation especially concerning sustainable practices that the tribal owned or tribal managed resorts currently employ. Multiple reasons persist as to why Native American owned or operated resorts persist as a unique segment within hospitality in need of study. While most reasons are initially philosophical, they manifest and directly influence concrete, practical, and culturally applicable implementation of sustainable practices utilized within Native American owned or operated resorts (Bremner & Wikitera, 2016; Dockry, Hall, Van Lopik, and Caldwell, 2016; Nakashima & Roué, 2002; Piner & Paradis, 2004).

Other reasons for focusing on Native American resorts are imbedded in the history of various Native American Tribal Nations within the United States and Canada. First, federally-recognized Native American Tribal Nations are sovereign governments (BIA, 2018; Cattelino, 2008; Lanerd, 2018; Piner & Paradis, 2004) and practice limited self-determination over their culture, economics, education systems, and politics (Lanerd, 2018; Magni, 2017). Limited self-governance allows Tribal Nations to operate businesses where non-native companies are not legally permitted to due to laws and regulations (Cattelino, 2008). Additionally, land sovereignty and limited self-governance permit experimentation with and implementation of sustainable practices that tribal governments

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deem desirable for their tribal community (Black & McBean, 2017; Brady & Monani, 2012).

Second, many North American Indian tribes like the Seminole of Florida (Cattelino, 2008) or the Tribal Nations involved with the Seventh Generation Fund (SGF, 2019) consider how each large, influential decision, such as creating a resort, acknowledges a multigenerational bequeathment of knowledge, incorporating past, present, and future actions that potentially affect the tribal community (Alvarez, 2011; Dreveskracht, 2013; Magni, 2017). In fact, The Great Law of Peace "mandates that chiefs consider the impact of their decisions on the seventh generation yet to come" (SGF, 2019). The tribal knowledge from past generations passed to subsequent generations through oral and physical teachings to ensure a continuation of the tribe (Lightfoot, Cuthrell, Striplen, & Hylkema, 2013; Nakashima & Roue, 2002). The community focus and incorporation of past actions help sustain a community long term, even when environments, technologies, and situations change (Cattelino, 2008; Lightfoot et al., 2013; VanCooten, 2014).

Third, a sense that all things are interconnected permeates various North American tribal cultures (Willows, 2010). The interconnection between economy, values, and culture are important to sustaining a community through external and internal changes (Cattelino, 2008; Dockry et al., 2016; LaPorte, 2017; Long, Tecle, & Burnette, 2003).

Fourth, the history of many Tribal Nations within the western hemisphere was a traumatic one. Prior to European colonization, North American Tribal Nations were autonomous (NCAI, 2019). After European colonization life changed for the indigenous

people, the degree and style of change directly depended on location of the Tribal Nations and the tribal relationship with the colonizing people (Johnson, 1977; Vaughan, 1982). During the 19th and early 20th centuries, life for many Tribal Nations became harsh (HCR 108, 1953; King, 2012) as indigenous reservations were created and enforced (Beck, 2005; Onondaga Nation, 2018; PBLI, 2019a) and indigenous traditions and languages were outlawed (NLM, n.d.). In the mid to late 20th century, many Tribal Nations changed their circumstances when they promoted tribal autonomy (Beck, 2005, Taylor, 2019) and exerted tribal sovereignty through developing tribally owned or managed business ventures (CFFNG, 2013; Centre for Sustainability, 2011; Cornell & Kait, 2007; Eisler, 2002). The development of hospitality venues, specifically resorts and casinos, transpired as one of various actions that different Tribal Nations chose to financially use in their quest as they overcame historical trauma and promoted tribal autonomy (Benedict, 2000; Eisler, 2002; Koenig, 2019b; Macdonald, 2017; Spilde, 2004).

Fifth, numerous Tribal Nations throughout North America employed sustainable practices for millennia (Benson, Berry, Jolie, Spangler, Stahle, & Hattori, 2007; Chang, 2015; Chappell, 2002; Clark, 2008; Dreveskracht, 2013; Minster, 2018; Pauketat, 2009; Steffans, 2019; Yates, 2014) by passing down or teaching sustainable practices to succeeding generations (Leonetti, 2010; Lightfoot et al., 2013; Magni, 2017; Nakashima & Roué, 2002). Historically, Tribal Nations employed various successful sustainable practices (Egelhoff, 2015; Lightfoot et al., 2013; Nakashima & Roue, 2002; Pace, 2015). Native people commonly shared cultural priorities toward environment and cultural sustainability (Leonetti, 2010; Lightfoot et al., 2013).

The Sustainable Development Institute model of sustainability (SDI) developed as a response to the United Nations Conference on Environment and Development, commonly referred to as the Earth Summit, in Rio de Janeiro, Brazil in 1992 (SDI, n.d.). A joint project involved the Menomonee Nation in the State of Wisconsin, the College of Menominee Nation, and Menominee Tribal Enterprises questioned if the global issues of environmental protections and socio-economic development were amiable (UNESCO, 1992) or did the goals from the Earth Summit conflict (SDI, n.d.). To answer the premise that environmental protection and socio-economic development could co-exist, the joint project based their research on over 150 years of Menominee sustainable forestry (Dockey, 2012; SDI, n.d). The theoretical model developed during the project measured interconnecting sustainability spheres and incorporated communities past, present and future decisions (Dockry, 2012, Dockry et al., 2016;).

The SDI model "conceptualizes sustainable development as the process of maintaining the balance of reconciling the inherent tensions among six dimensions of sustainability" (Dockry et al., 2016, p. 127). These categories "include: (1) land and sovereignty; (2) natural environment (which includes human beings); (3) institutions; (4) technology; (5) economics; and (6) human perception, activity, and behavior" (Dockry et al., 2016, p. 129). These six dimensions (spheres) formulate the interactive and multidimensional considerations for complex sustainable practices. Since the SDI model was successfully used in community development (Dockry, 2012, SDI, n.d.), education (Dockry, 2012, Centre for Sustainability, 2011, SDI, n.d.) and forest restoration (Beck, 2005; Dockry, 2012), Gill and Williams (2011) suggested that the concept of interconnecting spheres could be applied in hospitality and as such it would assist resort

management alleviate the fragmentation of sustainable practices and wasteful, unsustainable nature of the hospitality industry.

Native American resorts stand as a unique segment within the hospitality industry. Each of the 573 federally-recognized tribes are sovereign nations (BIA, 2018). These native sovereign nations exhibit a range of values, community development foci, economic objectives, and cultures (Alvarez, 2011; Bremner & Wikitera, 2016; Cattelino, 2008; Nakashima & Roue, 2002). Native American hospitality ranges from large scale global resorts like the Hard Rock Hotel and Resorts (Cattelino, 2008), to wineries (Centre for Sustainability, 2011), tour companies (Bremner & Wikitera, 2016), activity centers (Piner & Paradis, 2004), and single hotels (Fuller, Martino, & Begay, 2016). Native American hotels and resorts occur as independent facilities that remain tribal owned and tribal managed (Piner & Paradis, 2004) or franchised facilities that maintain tribal ownership and utilize external management (Alvarez, 2011; Jones et al., 2016). Native American owned or operated facilities have increased in number and desirability (Alvarez, 2011; Bremner & Wikitera, 2016) since the first Native American casino opened in 1979 (Cattelino, 2008). Yet, not all Native American owned facilities offer gaming venues, although a sizable proportion of Native American resorts host casinos (500nations, 2018). Even though the Seminole Tribe of Florida was not the first Native American tribe to develop hospitality facilities, the Seminole remain among the first native tribes to host modern, large-scale hospitality facilities under sovereign nation jurisdictions (Cattelino, 2008).

While hospitality facilities existed within Native American communities for over a century (Baires, 2015; Clark, 2008; Manitou Cliff Dwellings, 2019), scholarly research

into the implementation of sustainable practice within Native American owned hospitality facilities remains virtually nonexistent. Yet, society acknowledges that a continuous, practical approach to fix and transform the natural environment, human perception and behavior toward sustainable practices is required (Bremner & Wikitera, 2016; MacDonald & Jolliffe, 2003).

During the investigation of current publications, it became apparent that a gap exists in scholarly research concerning the application and usage of the SDI model of sustainability within Native American hospitality. A second gap in scholarly literature and practice concerns the identification of sustainable practices utilized in Native American resorts. Deriving from these gaps a few overarching questions remain. By viewing publicly accessible documents, what sustainable practices are currently employed at Native American resorts? Additionally, which of the SDI model's interconnecting spheres do the noted sustainable practices affect?

This study aims to address these gaps though the following objectives:

Objective 1: Identify the sustainable practices presented in publicly accessible documents currently applied at Native American owned or operated resorts.

Objective 2: Categorize the identified sustainable practices under the Sustainable Development Institute model of sustainability (SDI).

Objective 3: Identify similarities and differences between the application of the sustainable practices in the chosen Native American resorts.

Existing hospitality and sustainability publications focus on the sustainable practices (Rodriquez-Anton et al., 2012; Wan et al., 2017) specifically in relation to

environmental and financial sustainability (Jones et al., 2016; Moreo et al., 2009; Rodriquez-Anton et al., 2012). Native American publications focus on the sustainability of culture and education (Chang, 2015; Gritter, Scheurerman, Strong, Schuster & Williams, 2016; Reynolds, 2003). The implication of this study is that scholars and practitioners can identify and categorize sustainable practices through the SDI model's interconnecting sustainability spheres within hospitality facilities. Thus, scholars and practitioners should gain the ability to evaluate the summation of a sustainable practice's affect.

This thesis can be considered a starting point for future research concerning the SDI model and the usage of sustainable practices in native and non-native venues. A goal for this study is to identify the sustainable practices utilized in four tribal owned or tribal operated resorts in North America, specifically in the United States or Canada, and compare the resort's sustainable practices through the SDI model. This thesis can also serve as a guideline to native and non-native venues for the potential use of similar sustainable practices in other facilities.

CHAPTER II

LITERATURE REVEIW

To understand the context of the current study, one must first understand the intangible concept of various indigenous cultural philosophies and how these indigenous ideologies apply to sustainable practices. A theoretical foundation persists as the basis for understanding the questions, discussions, and conclusions of the current study. Without understanding theoretical indigenous knowledge as it applies to sustainability, data could become meaningless, situational, unreliable, and inconsistent (Stump, 2010). In the case of sustainability, "acquired knowledge cannot be divorced from the existence in which it is acquired" (Bonhoeffer, 1959, p. 51). In fact, indigenous thought often diverges from non-indigenous thought in that "Mainstream science embodied philosophical assumptions such as positivism, reductionism, dualism, anthropocentrism, and universalism in linear time, while Native cultures tended toward relationalism, holism, place-based and intergenerational knowledge, and circular time." (Murry, James & Drown, 2013, p. 5).

The definition of Native American. History, culture, and politics differ upon what to call the first recorded people of North America and their descendants: Natives, Aboriginals, Indigenous, First Nations, or First People (King, 2012; Magni, 2017;

Nakashima & Roué, 2002; Willow, 2010). King (2012) summarizes the debate on what to call "individuals who share common ancestry with the original regional occupants, a distinct ethnic identity, and share patterns of vulnerability" (Nakashima & Roue, 2002, p. 2):

When I was a kid, Indians were Indians. Sometimes Indians were Mohawks or Cherokees or Crees or Blackfoot or Tlingits or Seminoles. But mostly they were Indians. Columbus gets blamed for the term, but he wasn't being malicious. He was looking for India and thought he had found it. He was mistaken, of course, and as time went on, various folks and institutions tried to make the matter right. Indians became AmerIndians and Aboriginals and Indigenous People and American Indians. Lately, Indians have become First Nations in Canada and Native Americans in the United States, but the fact of the matter is that there has never been a good collective noun because there never was a collective to begin with. (King, 2012, p. xii).

Currently, many North American indigenous Tribal Nations are sovereign with limited governance over their own economy, culture, politics, and educational institutions (Larnerd, 2018; Magni, 2017), creating a unique industry segment. Various Indigenous Nations often emphasize a respectful relationship with flora, fauna, land, water, air, and other people (Chang, 2015; LaPorte, 2017) while consistently adapting and keeping their unique ancestral knowledge alive (Magni, 2017; Reynolds, 2003). Within the United States, there exists a diversity of cultural and linguistic indigenous groups including 573 federally recognized tribal entities (BIA, 2018), plus many more state-recognized and

unrecognized Tribal Nations, with approximately 400 languages and dialects (Leonetti, 2010).

The term indigenous implies a non-regionally specific people group, therefore, this paper utilizes the term indigenous when referring to tribal, sustainable practices not uniquely North American. When referring specifically to North American indigenous peoples, this paper uses the term Native American due to the geographic connotation (King, 2012). Detailing the distinction between terminology remains important within this study because it lays a foundation for the population sample. Without this distinction, the importance of historical sustainable practices could be lost and thought of as groundless (Burger, 2012; Willow, 2010).

The definition of sustainability. With over 300 definitions of sustainability (Frazier, 1997; Geissdoerfer, Savaget, Bocken, & Hultink, 2017), no one universally accepted definition of sustainability prevails. The definition of sustainability changes depending on the audience, the problem in focus, and the industry (Frazier, 1997; Garrod & Fyall, 1998; Geissdoerfer et al., 2017; Upadhyaya & Moore, 2012). The United Nation Environmental Programme (UNEP) promotes sustainable practices by focusing on a variety of sustainability goals, such as utilizing renewable energy (DeGrosbois, 2012; Geissdoerfer et al., 2017), decreasing greenhouse gas emissions (DeGrosbois, 2012; Nine Tribes, 2013), increasing water efficiency (Kasim, Gursoy, Okumus, & Wong, 2014), establishing waste management systems (Upadyaya & Moore, 2012), decreasing biological diversity loss while simultaneously preserving the individual heritage of regions and communities (Ayu-Oka-Suryawardani & Suryawan-Wiranatha, 2016), recycling and reusing materials and processes (DeGrosbois, 2012), and using locally

produced products (Erdogen & Tosun, 2009; Jayawardena et al., 2013). Many definitions of sustainability focus on the environment and fail to recognize the aspect of time while attempting to be comprehensive (Jones et al., 2016). Geissdoerfer et al. (2017) argues that having multiple definitions causes greater inconsistency and theological complications compared to a singular definition. Therefore, the non-indigenous concept of sustainability tends to be context specific and tailored to the needs of distinct industries or facilities (Lim, 2016).

Ignoring the interconnecting aspects impacted by sustainability, such as the spheres of finance, culture, community health, continual generations and technology, (Bremner & Wikitera, 2016; Frazier, 1997; Geissdoerfer et al., 2017; MacDonald & Jolliffe, 2003) creates a lack of understanding of the overall impact of sustainable practices. Since 1987, the United Nations Brundtland Commission on Environment and Development defines sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." (p. 41). Frazier (1997) brings focus to the root word 'sustain' which is defined as "holding up, supporting, supplying or providing for. It can refer to maintaining processes, as well as both physical and conceptual entities. Basic to the term is the concept of continuity, maintaining something indefinitely" (p. 185). Clarke (1997) and Frazier (1997) emphasize that sustainability endures not only as an innate trait of individuals or an organization, but also as a goal.

Thus, sustainability encompasses more than physical methods to maintain healthy ecosystems, it involves retention and application of knowledge for more than one generation (Ayu-Oka-Suryawardani and Suryawan-Wiranatha, 2016; Burger, 2010;

Chang, 2015; Garrod & Fyall, 1998; Jayawardena et al., 2013; Lim, 2016; Rodriguez-Anton et al., 2012). Piner and Paradis (2004) state that for sustainability to succeed it must include tribal or regional language restoration, traditions, values, education, and traditional and modern trades utilized within a community. In conjugation, while studying the Seminole tribe of Florida, Cattelino (2008) notes that the Seminole concept of sustainability does not focus solely on environmental or financial concerns, but on maintaining their culture, values and generational obligations. Dreveskracht (2013) advances this thought by arguing that "[i]t is ironic that [those who seek sustainable development] must rediscover principles that Native Americans knew" (p. 136) from experiences stretching back for millennia due to the passing the practices and concepts for generations (Burger, 2012; Black & McBean, 2017; Larnerd, 2018; Reynolds, 2003; Willow, 2010).

While working with the Menominee Nation and the National Forestry Service in Wisconsin and Minnesota, Dockry et al. (2016) defines sustainable practices as a "… process of maintaining the balance and reconciling the inherent tensions… a continual and iterative process…" (p. 127). Dockry et al. (2016) went further by postulating that there exist six interactive components and tensions within sustainability: sovereignty, natural environment, institutions, technology-knowledge, economics and human perception. Cattelino (2008), Dockry et al (2016), Fraizer (1997), and Piner and Paradis (2004) emphasize that sustainability encompasses more than environmental protection or financial goals, but exists as a continuous practice that maintains values, culture and community.

Summary definition of sustainability. By combining definitions of sustainability from Cattelino (2008), Dockry et al (2016), Frazier (1997) and the United Nations Brundtland Commission (1987), a definition emerges that lends credence toward understanding the importance of sustainability. Therefore, throughout the remainder of this study, sustainability is the continuous actions taken by businesses, individuals, or organizations to uphold, strengthen, preserve, and increase current and future generations' accessibility to natural and cultural resources by observing and connecting land sovereignty, natural environments, institutions, knowledge, economics, and perception (Dockry et al., 2016; Frazier, 1997; United Nations Brundtland Commission, 1987).

Current non-indigenous approach to sustainability. The current state of sustainability research tends to segment sustainable practices into components or individual units, such as weak practices (Garrod & Fyall, 1998; Hartwick, 1977, 1978; Solow, 1974, 1993), strong practices (Frazier, 1997; Garrod & Fyall, 1998), plastics (Fuller et al., 2016; Hauck, 2018; Josephs, 2018), water (Kasim et al., 2014; Upadhyaya & Moore, 2012), wind (Acker, Auberle, Duque, Jeffery, LaRoche, Masayesua & Smith, 2003), solar (Namkung & Jung, 2013; Wan et al., 2017). Industries promoting sustainable practices include finance (Burger, 2010, Garrod & Fyall,1998, Kirk, 1995), agriculture (Lightfoot et al., 2013; Dockry et al., 2016) and energy (Jayawardena et al., 2013). Throughout multiple industries, sustainable practices tend to focus on the carbon footprint created over the lifecycle of a practice and ways to minimize the carbon footprint (Brady & Monani, 2012; Fleming & Cook, 2007; Gill & Williams, 2011).

Sustainable standards commonly evaluate the effect of extraction or alteration of a resource or practice in a specific location upon the biosphere (Hawken, 2010).

Since the Industrial Revolution and the subsequent awareness of its impact upon the environment, the need for sustainability, stewardship and preservation of the environment became mandatory and a political issue (Hawken, 2010; Jones et al., 2016). Current approaches for sustainability measure benefits of sustainable practices by their perceived value to the environment (Aya-Oka-Suryawardani & Suryanwan-Wirantna, 2016), resources (Garrod & Fyall, 1998) culture (Burger, 2010; MacDonald & Jolliffe, 2003), and finances (Acker et al., 2003; Geissdoerfer et al., 2017; Kirk, 1995).

Sustainable practices produce multiple benefits from cultural sustainability (Bremner & Wikitela, 2016; Jayawardena et al., 2013), the intergenerational preservation and continuation of beliefs, traditions, methods and knowledge (Nakashima & Roué, 2002), the maintenance of a healthy ecosystem that can maintain its natural capacity and sustain human life longer than one generation (Burger, 2010), and extend the life of a business (Alvarez, 2011).

The ideology behind modern land, agriculture, and water sustainable practices differs from that held in conservation (Dudgeon, 2003). An early argument about conservation by Aldo Leopold (1949) states that:

> Conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we see land as a commodity belonging to us, when we see land as a community to which we belong, we may begin to see it with love and respect. There is no other

way for land to survive the impact of mechanized man, or for us to reap

from the esthetic harvest it is capable, under science of contributing to

culture… (Dudgeon, 2003, p.1).

Disrespect and abuse of the land generates a negative impact on modern culture

(Larned, 2018; Nakashima & Roué, 2002). Nakashima and Roué (2002) and Chang

(2015) comment on how modern farming methods commonly do not allow for a natural

fallow, leaving the land uncultivated for a season, consequently, decreasing the

biodiversity of the land. Furthermore, non-indigenous, modern practices lead to uprooting

and destruction of fertile land (Nakashima & Roue, 2002), for example the American

Dust Bowl of the 1930s (Young & Dhanda, 2013).

Prominent current Native approach to sustainability. With the diversity of

cultural and linguistic indigenous groups, the various tribes embrace differing levels of

sustainability. Yet, the current concepts of Native American sustainability originate in

ancient times, where sustainable practices persists as a way of life (Benson, Berry, Jolie,

Spangler, Stahle, & Hattori, 2007; Chang, 2015; Chappell, 2002; Clark, 2008;

Dreveskracht, 2013; Minster, 2018; Pauketat, 2009; Steffans, 2019; Yates, 2014).

Indigenous elders often convey knowledge concerning sustainable use, applications, and

the importance of plants, animals, food, medicine, crafts, ceremonies, or objects

(Leonetti, 2010; Lightfoot et al., 2013) to keep their culture and traditions alive for

succeeding generations through a combination of demonstrations, oral instructions

(Nakashima & Roué, 2002) and interaction with the natural environment (Magni, 2017).

Yet, how the information is conveyed differs among the tribes. Nevertheless, the

consistent imparting of information ranging from farming practices, dances, music,

medical herbs and practices, language, art, legends and spiritual assistance (Leonetti,

2010; Lightfoot et al., 2013; Gritter et al., 2016) remains. Sustainability allows a society

to change the future and preserve their past, while incorporating sustainable practices into

all aspects of life (Dockery et al., 2016; Lim 2016).

While the term *Indigenous* refers to the people, indigenous knowledge broadly

encompasses local knowledge held by a unique culture or people group (Jansson,

Hammer, Folke, & Costanza, 1994). Indigenous knowledge relative to sustainability

incorporates respect, preservation and maintenance of knowledge, innovation and

practices of indigenous people and their communities (Bremner & Wikitera, 2016;

Chang, 2015; Magni, 2017).

It also embodies traditional lifestyles relevant toward the application of

sustainable practices within biodiverse environments (Nakashima & Roué, 2002). Native

American sustainability practices and indigenous knowledge relating to sustainability is

alternatively referred to as traditional ecological knowledge (TEK) (Lightfoot et al.,

2013; Marchland, Vogt, Suntana, Cawston, Gordon, Siscawati, Vogt, Tovey,

Sigurdardottir, & Roads, 2013; Murry et al., 2013). TEK concedes that the knowledge

learned throughout generations and passed down through environmental and cultural

education often remains unique to each group of people (Alvarez, 2011; Magni, 2017;

Murry et al., 2013). TEK acknowledges that holistic, cylindrical worldview, community,

and sustainable practice contribute to the creation of integrative sustainable development

(Larned, 2018; Murry et al., 2013).

Frazier (1997) mentions the politically motivated efforts made to cause the extinction of indigenous knowledge that indigenous people carried for millennia as custodians of the land, which could provide solutions for prevailing environmental problems. If indigenous knowledge cloisters within the tribe, then growth in the application of sustainable practices stagnates (Chang, 2015; Long et al., 2003; Sherman, VanLanen, & Sherman, 2010). If tribes utilize and expand their indigenous knowledge concerning sustainability, then the tribe can flourish (Lee, 2016; Nakashima & Roue, 2002; Piner & Paradis, 2004).

Historically, credited for their 'traditional resource and environmental management' (Lightfoot et al., 2013), Native Americans developed and employed diverse and successful sustainable practices. Some of the historical sustainable practices apply directly to modern practices of agricultural techniques to enhance the biological diversity of plant life (Egelhoff, 2015; Lightfoot et al., 2013; Nakashima & Roue, 2002; Pace, 2015), water and land management (Baires, 2015; Bremner, & Wikitera, 2016; Dudgeon, 2003; Magni, 2017; Reynolds, 2003), wind and solar energy (Acker et al., 2003; Brady & Monani, 2012; Dreveskracht, 2013), building development and land use application (Ayu-Oka-Suryawardani, & Sulyawan-Wirantna, 2016; Dockry et al., 2016; Dreveskracht, 2013; Fuller et al., 2016).

In North America, water continues to be tied to life and death; an ambiguous boarder between the animate and inanimate (Baires, 2015; Chang, 2015; Larned, 2018). Water sustainability belongs in part to the individual, but a greater percent to the collective society as deemed by indigenous knowledge (Baires, 2015). Water and land function jointly (Reynolds, 2003), thus, water-land sustainability must be collective.

Preservation and stewardship of the land permeates the Native American common cultural concepts interconnecting the spheres of their economy, environment, and societal interaction (Garrod & Fyall, 1998; Gritter et al., 2016). The value of past knowledge has kept the aqueducts of the Hohokam Nation in use through present day (Baires, 2015; Haury, 1965; Powell, 2008), as well, as the revitalization of historical agriculture practices within the White Earth Nation (Egelhoff, 2015; Pace, 2015).

In addition to the sustainable practices dealing with water, sustainable practices on tribal lands change dramatically with the introduction of modern technology. Within the United States, tribal lands are not regulated by the Department of Energy like nontribal lands (Brady & Monani, 2012). Thus, a different set of regulations and oversight committees concerning legal regulations for sustainability exist (Brady & Monani, 2012; Larned, 2018). In many cases, non-DOE regulations allow indigenous communities and resorts to explore, refine, and adapt historic sustainable management practices to contemporary sustainable management.

Technological inventions and knowledge can augment historical methods to achieve greater efficiency (Jones et al., 2016; Larned, 2018), by adopting or reserving historical land and water management practices, indigenous sustainable practices can assist in fighting air and water pollution, deforestation, biodiversity loss while utilizing integrated resources and efficient energy systems (Ashourian, Cherati, Zin, Niknam, Mokhtar, & Anwari 2013). Applying historical methods of water conservations and practices increases the biodiversity (Baires, 2015; CWMM, 1992) of the surrounding region.

In contrast to industry standards, wind energy development on native lands show that 75% of the tribes displayed interest in researching, funding, and hosting renewable energy systems on their lands (Acker et al., 2003; Nine Tribes, 2013). Over the last twenty years, different Native American communities continue to develop sustainable practices as the tribes make decisions concerning use of natural resources and strategic planning (Dreveskracht, 2013), especially in the areas of building material efficiencies (Fuller et al., 2016; Klepeis, Dhaliwal, Hayaord, Acevedo-Bolton, Ott, Read, … & Moore, 2016) and architecture (Ayu-Oka-Suryawardani, & Sulyawan-Wirantna, 2016; Fuller et al., 2016). The rationale for continuing sustainable development of tribal lands include sovereignty of the land, involvement of indigenous people (Dockry et al., 2016; Dreveskracht, 2013), and the tribal government's ability to assess, engage, design and address the needs, and their involvement of local people (Cattelino, 2008; Dreveskracht, 2013; Larned, 2018).

The methods of communication and the range of sustainable practices result from the application of numerous unique characteristics driving differing Native American tribes to develop sustainable practices pertinent to their cultures. These characteristics include longevity of the practice through intergenerational knowledge and the custom of bequeathal (Alvarez, 2011; Frazier, 1997; LaPorte, 2017; Lee, 2016; Lightfoot et al., 2013; Nakashima & Roué, 2002; Piner, & Paradis, 2004; Reynolds, 2003), understanding the interconnecting, multidimensional effects (Chang, 2015; Dockry et al., 2016; LaPorte, 2017), and regional application (LaPorte, 2017; Larned, 2018).

The first unique trait is that many Native American Tribal Nations such as the Iroquois Confederacy in New England (Dudgeon, 2003; Iroquois Confederacy, 1142),

Seminole tribe of Florida (Cattelino, 2008), Lakota in South Dakota (Wilkins, 2015), Colville Confederated Tribes of Washington (Marchland, Vogt, Suntana, Cawston, Gordon, Siscawati, Vogt, Tovey, Sigurdardottir, & Roads, 2013), Pima-Maricopa in Arizona (Alvarez, 2011), and the Dine in Arizona and New Mexico (Wilkins, 2015) often consider the impact of a sustainable practices upon past, present and future generations for the timespan of seven generations (100 to 210 years) while making large, influential decisions (Alvarez, 2011; LaPorte, 2017; Lee, 2016; Lightfoot et al., 2013; Magni, 2017, Nakashima & Roué, 2002; Piner, & Paradis, 2004; Reynolds, 2003; Wilkins, 2015). In other words, tribes may incorporate experience, present situations, and future implications into implementing sustainable practices.

Intergenerational or multigenerational sustainable development creates an important understanding that we are not alone, but a part of a family and a community (Egelhoff, 2015; Gritter et al., 2016; Lee, 2016; Pace, 2015). Bremner and Wikitera (2016) propose that a sustainable community requires and respects indigenous knowledge as an intergenerational source for sustainable practices. Such practices produce tangible results (Frazier, 1997; Stump, 2010) as they bring practices and lessons from each generation together in order to look for a long-term solution (Haury, 1965; Hodges, 2011; Seppa, 1997; Tempe, n.d.). However, these practices could have modifications and advancing technologies absorbed into them. Ironically with traditions and practices passed on through generations, indigenous knowledge has not separated from the original situation or environment (Black & McBean, 2017; Marchland et al., 2013; Reynolds, 2003).

Native American cultural philosophies generally emphasize that all things present in nature are gifts from the spirit realm (Chang, 2015; Maxwell, 1978) and living in harmony with these gifts (Gibson, 2011). Thus, Native American cultural philosophies require respect, preservation and stewardship, to preserve the natural resources and hand it over to future generations (Black & McBean, 2017; Burger, 2012; Reynolds, 2003; Willow, 2010). Thus, sustainability encompasses the intergenerational preservation and continuation of beliefs, traditions, methods and knowledge (Nakashima & Roué, 2002).

The concept of 'bequeathment,' means passing knowledge, practices, and beliefs from one group to another through oral and physical teaching (Lightfoot et al., 2013; Nakashima & Roué, 2002). Indigenous cultural knowledge thrives by being grounded in the realization that "our relationship and interactions with the land, air, water, and all other living" (Leonetti, 2010, p. 10) things can reveal valuable lessons. Historically, indigenous hunting practices exemplify the principle of bequeathment (Maxwell, 1978). Everyday items, such as cloth, needles, thread, water bottles, and weapons pass from one generation to the next (Maxwell, 1978; Willow, 2010). Through the sustainable principle of bequeathment (Chang, 2015; Marchland et al., 2013; VanCooten, 2014) individuals further reduce the need for excessive materials and prompts ingenuity in recreating and reshaping usage of materials. Cultural sustainability relies on studying the past (Frazier, 1997; Gill & Williams, 2011; MacDonald & Jolliffe, 2003) through oral and physical lessons in stories, crafts, ceremonies, and traditions (Gritter et al., 2016) and prompts the bequeathal of cultural knowledge to future generations (Frazier, 1997; Gill & Williams, 2011; MacDonald & Jolliffe, 2003).

The second unique characteristic of Native American sustainable practices often assumes the interconnecting effect (Willow, 2010) of sustainable practices. "Pillars of sustainability are not distinct 'silos' for individual consideration but are interconnected components of the destination system." (Gill & Williams, 2011, p. 639). Upadhyaya and Moore (2012) extends this thought stating that if the pillars of sustainability do not work together, interconnectedly, then the sustainable effort becomes useless and depletes the efficiency of other practices.

When encountering a new environment, situation, or advancing technology, the interconnecting component of sustainable practices, like economy, society, and environment, allows for a collaborative collection of prior and current knowledge pertinent to the situation (Burger, 2012; Dockry, 2014, Jayawardena et al., 2013; Marchland et al., 2013). Such knowledge assumes that if actions and decisions affect other spheres, then traditional knowledge with modifications or additions can be uniquely applied to new situations and decisions while remaining true to the original principle (Black & McBean, 2017; Lightfoot et al., 2013; Pace, 2015; VanCooten, 2014).

The importance of "our relationship and interactions with the land, air, water, and all other living" (Leonetti, 2010, p. 10) can reveal valuable lessons through which indigenous knowledge and sustainable practices can thrive. Indigenous systems of cultural knowledge presume that all things link and function as a unit (Burger, 2010, 2012; Nakashima & Roué, 2002; Piner & Paridis, 2004; Reynolds, 2003). The value of and respect for indigenous knowledge stems from a culturally significant platform of generational history, experiences, social traditions and spiritual connections (Burger, 2010, 2012). These interconnecting spheres are fundamental in maintaining and

improving a people's way of life (Bremner & Wikitera, 2016; Magni, 2017); revealing

lessons, improving integrity, authenticity, and stewardship that affects all aspects of

spirituality, governments, environments and social interactions (Burger, 2010, 2012;

Leonetti, 2010; Piner & Paridis, 2004). Therefore, interconnecting effects imply that a

single sustainable practice, like recycling paper, would impact different spheres.

The third unique characteristic of Native American sustainable practices often

assume that successful sustainable practices could have regional application. Executive

Director of the United Tribes of Michigan, Frank Ettawageshik, addresses the topic of

indigenous tribes and sustainability, when he said:

> We believe that a lack of respect for the natural world has led our global
>
> societies to the brink of disaster. Our hope is that humankind will be able
>
> to pull back from disaster by growth towards embracing the traditional
>
> teachings of the Indigenous Peoples of the World. This can be effective on
>
> the local, regional and global scale. (LaPorte, 2017, p. 1)

The collaborative kinship with others and the environment forms the historical

culture of many Native Americans. Frazier (1997) mentions the historical knowledge

that indigenous people carried for millennia, as custodians of the land, could be the

solution for many prevailing regional environmental problems.

Historic native sustainable practices were applied on a regional scale by various

tribes, like the Anasazi tribe of the Rio Grande Valley (CWWM, 1992), the Hohokam,

Anasazi and Pueblo of the American Southwest (Arizona, 2012; Baires, 2015; Englehoff,

2015; Manitou Cliff Dwellings, 2018, Pace, 2015, Powell, 2008), and the Olmec

(Bremner, & Wikitera, 2016; Clark, 2008; Magni, 2017; Minster, 2018). Currently,

several Native American tribes like the Menominee (Beck, 2005), Onondaga (Onondaga Nation, 2018), and Osoyoos (Centre for Sustainability, 2011) undertake sustainable development with regional implication.

The fact remains that indigenous groups have successfully implemented sustainable practices for millennia (Sherman et al., 2010; Reynolds, 2003) as solutions to prevailing environmental issues (Frazier, 1997), acknowledging the interconnecting effects of sustainability contributes to the successful longevity of indigenous sustainable practices (Dockry et al., 2016; LaPorte, 2017). Chang (2015), Gritter et al. (2016) and Hawken (2010) assert that through circumstances nature teaches, while humans and businesses need to watch, listen and respect nature. Various indigenous cultural systems of philosophy toward sustainability allowed for various cultures to flourish for centuries as regional trade centers (Archaeology, 2014; Clark, 2008; Manitou Cliff Dwellings, 2018; Minster, 2018; Tempe, n.d.; Yates, 2014). Furthermore, these trade centers consequently required food and lodging for their era's merchants. These historical indigenous lodging facilities represent early America's version of hotels and resorts.

Indigenous systems of philosophy present an integral component of indigenous sustainable practices by reinforcing the interconnecting spheres of culture, human perception and interaction with the larger ecosystem, the continuous improvement and development of sustainable practices over succeeding generations. As Bonhoeffer (1959) wrote "acquired knowledge cannot be divorced from the existence in which it is acquired" (p. 51), thus, possessing knowledge gleaned from the application of indigenous systems of philosophies in the form of sustainable practices, mainstream hospitality could

benefit by understanding the indigenous systems of philosophical rationale that lead to sustainable practices which endured for hundreds of years.

Current approach to sustainability within the general hospitality industry. The importance of understanding and applying sustainable practices within the hospitality industry remains multifold (Hawken, 2010). As a diverse sector, hospitality and tourism endures as one of, if not, the fastest growing global industry (DeGrosbois, 2012), tourism has increased 15% annually since 2000 (Kilkenny, 2011) and tourism at resorts boasting a 2.5% average annual increase (Kilkenny, 2011). Alongside the number of hospitality facilities increases annually, so does the non-sustainable aspects of the industry.

The hospitality industry, specifically hotels and resorts, generally focuses on the perceived ease of practice, financial aspects (Cummings & Taylor, 1999; Jones et al., 2016) or immediate environmental effects and the carbon footprint (Ayu-Oka-Suryawardani & Suryawan-Wirantna, 2016; Jones et al., 2016; Moreo et al., 2009). Hospitality facilities contribute 10% of global carbon emissions (Moreo et al., 2009; UNEP, 2017). Even with lower global carbon emissions compared to other industries, sustainability remains a prominent topic for the hospitality industry (Ashourian et al., 2013; Garrod & Fyall, 1998; Kirk, 1995). Yet, to focus on any single perceived effect, like carbon footprints, of a sustainable practice relegates the interconnecting effects of the practice to obscurity (Burger, 2010, 2012; Nakashima & Roué, 2002; Piner & Paridis, 2004; Reynolds, 2003).

Hotels and resorts statistically utilize three times more water than local communities (Tortella & Tirado, 2011) due to guest behavior (Kasim et al., 2014; Tortella & Tirado, 2011). Countries and regions that rely on tourism often "sacrifice

agriculture and household need for the sake of industries" (Kasim et al., 2014 p. 1094) to make water accessible for the guests. However, Kim et al. (2016) contends that hospitality facilities, in general, remain interested in business profitability, not to protect and sustain the environment.

Hospitality sustainability literature commonly focus on renewable energy, recycling, water management, the financial profitability of sustainable practices within facilities, and with the barriers of implementation (Moreo et al., 2009; Rodriquez-Anton et al., 2012). In addition, climate, market-pricing fluctuations and environmental concerns significantly affect the hospitality sector (Moreo et al., 2009) because of the industry's sensitivity to consumer trends (Lim, 2016).

Due to the fluctuating nature of the hospitality industry, Kirk (1995) contends that even though individually hotels, resorts and other facilities may not significantly damage the environment, collectively, hospitality remains a leading environmental and social contaminator due to the pleasure mentality of consumers (Tortella & Tirado, 2011; Kasim et al., 2014). Thanvisitthpon (2016) and DeGrobois (2012) postulate that if the hospitality industry neglects to implement sustainable practices, it would lead to environmental and social degradation.

Sloan, Legrand and Chen (2009) defines hospitality sustainability as an attempt to "tackle the ever-increasing costs of energy and water as well as the moral, ethical, social and political arguments for taking action." (p. back cover). Sloan et al., (2009) takes into account the natural environment, knowledge, economies, perceptions and culture that the definition of sustainability derived from Dockry et al., (2016), Frazier (1997) and United

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Nations Brundtland Commission (1987) emphasize that hospitality sustainability focuses

on financial and environmental sustainable practices relating to water and energy. The

importance of sustainable practices within the hospitality industry, particularly hotels and

resorts, allows for the stewardship of resources including the impact upon the biosphere,

human perception, and general community health for continual generations (Bremner &

Wikitera, 2016; MacDonald & Jolliffe, 2003).

Yet, the hospitality industry continues to adopt sustainable practices to enhance

customer or corporate relationships, but not to promote environmental or cultural

management (Chan, 2011). Research shows that the public expects hospitality companies

to recognize the need for social and environmental responsibility and implement

sustainable practices (DeGrosbois, 2012). To respond to consumer demand for social and

environmental responsibility concerning sustainable practices (DeGrosbois, 2012), some

hospitality companies adopted corporate social responsibility initiatives (IHG, 2016;

Marriott International, 2012). The definition provided by the World Business Council for

sustainable development mirrors the concept of corporate social responsibility when it

defines sustainability within a business as "to behave ethically and contribute to

economic development while improving the quality of life of the workforce and their

families as well as the local community and society at large." (Soundarya, n.d., p. 40).

However, Kim et al. (2016) finds that the industry needs to investigate and integrate

corporate social responsibility, not just as an all-encompassing aspect but as a basis for

the ideal and fundamental nature of the company.

Meanwhile, there exists a considerable volume of fragmentation for sustainable

practices in the hospitality industry (Clarke, 1997; Jones et al., 2016). As current research

tends to center on an individual sustainable practice within the hospitality industry

(Lightfoot et al., 2013; Magni, 2017), the segmentation of sustainable practices without

considering their interconnection creates inaccuracies (Hawken, 2010) rendering data

complex and incapable of producing precise solutions (Stump, 2010). While the desire to

implement sustainable practices in hotels and resorts remains noteworthy, the general

lackadaisical application (Geissdoerfer et al., 2017) of sustainable policy confines

sustainable practices to mere desires (Chan, 2011).

Sustainable levels and labels traditionally created by governments and industry

'powerhouse' firms (Jayawardena et al., 2013) and currently implemented in the

hospitality industry lack credibility (Kim et al., 2016), enforceability (Erdogan & Tosun,

2009), continuality (Stump, 2010), consistency (Lim, 2016), and creativity (Lim, 2016).

Moreo et al., (2009) contends that the hospitality industry needs harsher regulations and

guidelines concerning sustainable practices. According to Lim (2016), the development

of rigid guidelines would truncate sustainable development. At the same time, Lim

(2016) asserts that sustainability systems applied in hospitality are rigid and ineffective,

instead of being a flexible, creative enterprises (Lim, 2016; Kasim et al., 2014) inclusive

of the consideration of past sustainable practices (Reynolds, 2003). Geissdoerfer et al.

(2017) and Jayawardena et al. (2013) recommend a more holistic approach to integrating

sustainable policies and practices.

Opposition to sustainable practices within the general hospitality industry.

While sustainable practices are sometimes a tiebreaker for guests when choosing a resort

(Lim, 2016), sustainability levels and achievements confuse guests and employees

(Erdogan & Tosum, 2009). The general population often, incorrectly, assumes that if a

hotel or resort implements sustainable practices, it must be a luxury (expensive) hotel or resort (Lee, 2017). Unfortunately, this position gives rise to the opposition for implementing and promoting sustainability in resorts, including immediate cost (Chan, 2011; Jones et al., 2016), resistance to change (Kirk, 1995; Wan et al., 2017), and difficulty in training employees (Rodriguez-Anton et al., 2012). The disadvantage of immediate cost and impeded rate of returns dominate the argument against sustainability (Kim et al., 2016).

The implementation and promotion of sustainable practices needs to be a gentle and a collaborative effort throughout the whole organization to produce sustainable results (Jones et al., 2016; Lim, 2016; Thanvisitthpon, 2016). A heavy-handed, top-down approach, however, tends to create negative blocks and additional complications in implementing sustainable practices (Jayawardena et al., 2013). Common opposition within hospitality against the application of sustainable practices include conflicting regulations and guilds (Geissdoerfer et al., 2017), ambiguous standards (Jones et al., 2016; Moreo et al., 2009), inconsistent financial and managerial support (Geissdoerfer et al., 2017), unqualified sustainability auditors (DeGrosbois, 2017; Rodriquez-Anton et al., 2012), and a lack of urgency for implementation (Wan et al., 2017).

When initiating sustainable practices, high initial cost remunerates within the first five years which discourages businesses from initiating them (Chan, 2011; Moreo et al., 2009; Rodriquez-Anton et al., 2012). However, Lee (2017) predicts that if resorts initiate social and environmental procedures while engaging in sustainable practices, they hold a higher potential for growth and long-term profitability. Therefore, rather than focusing on the short-term, cost of investment, businesses should concentrate on maintaining and

thriving within a community while promoting a favorable relationship with the environment that allows for sustainable development (Moreo et al., 2009).

Prominent current approach to sustainability within the native hospitality industry. During the investigation of current publications, it became apparent that studies in relation to Native American hospitality and sustainable practices remained virtually nonexistent. Yet, society acknowledges that a continuous, practical approach to fix and transform the natural environment, human perception and behavior toward sustainable practices is nexessary (Bremner & Wikitera, 2016; MacDonald & Jolliffe, 2003).

The history of Native American hospitality. Hospitality within Native American societies evolved from historical times to modern times. Historically, hospitality consisted of accommodating non-tribal members into the village with food and housing with tribal members (Baires, 2015; Willow, 2010). Similar to non-indigenous societies, various indigenous societies boast of massive trade centers, thus, providing evidence for types of lodging and dining facilities outside of the individual homes (Baires, 2015; Clark, 2008; Minster, 2018). Within the past 100 years, Native American hospitality evolved into a modern, diverse, all-inclusive industry. The progression of hospitality facilities differs among tribes, as tribal location, population, economics, and relations with state and federal agencies play an important role in the creation of hospitality facilities (Cattelino, 2008; Piner & Paradis, 2004).

Modern hospitality facilities within Native American communities possess strong roots in tour guides (Cattelino, 2008; Willow, 2010); be it alligator wrestling and culture tours through the Florida swamp land (Cattelino, 2008) to scenic and hunting tours among the canyons in the American Southwest (Verkamp, 1940), the Rockies, or

Appalachian Mountains (Clark & Edmonds, 1983). Hospitality facilities expanded from

providing tour guides to include native crafts shops (Piner & Paradis, 2004), living

history centers or towns (Bremner & Wikitera, 2016), smoke shops (Cattelino, 2008), and

small-low scale gambling centers (bingo halls) (MPTN, 2019a; Pechanga About Us,

2019).

In the last fifty years, the move towards museums, large hotels, and resort

complexes occurred. This does not mean that Native American tribes ceased providing

tour guilds, crafts, living history towns, smoke shops, or bingo halls, but various tribes

expanded and moved forward with hospitality venues in order to provide for their own

people (Alverez, 2011; Bremner & Wikitera, 2016; Magni, 2017). Cattelino (2008)

quotes James Billie of the Florida Seminoles in the reasoning for the push toward large

scale hospitality venues:

> 'Uncle Sam wants you to know only Uncle Sam's way of life. [He wants you to]
>
> be in *his* museum as another artifact, another species of human that he's
>
> conquered. So why is the government going to give you anything to build
>
> something up that sort of defines itself as a sovereign unit? So as soon as we got
>
> our monies, I built a museum' (p. 77).

This opinion states one of many reasons for institutionalizing and building various

hospitality facilities, such as casinos, resorts, museums, and wineries: sovereignty.

Today, Native American hospitality facilities compose a multi-billion-dollar industry,

with spas, hotels, casinos, restaurants, tour companies, museums, gas stations, wineries,

and every facet of hospitality (Alverez, 2011; Bremner & Wikitera, 2016; Cattelino, 2008).

Native American tribally owned facilities function under different jurisdiction relative to their non-native equivalent (Brady & Monani, 2012; Larned, 2018) due to their sovereign status (BIA, 2018; Larned, 2018; Piner & Paradis, 2004). This means that Native American resorts operating on Native American tribal land can choose to implement or not to implement any sustainable practices as they deem fit (Black & McBean, 2017). Consequently, native facilities to remain avant-garde in sustainable development.

Current method of evaluating sustainable practices within the hospitality industry. The hospitality industry, specifically hotels and resorts, commonly evaluate sustainable practices via the financial benefits and consumer opinions, as reflected within the travel cost method and the contingent valuation method (Cummings & Taylor, 1999; Fleming & Cook, 2007; Jones et al., 2016; Schreiner, Willett, Badger & Antle, 1985). Both methods, the travel cost method and the contingent valuation method, focus on perceived future consumer expenditures, not current expenditure or environmental impacts (Bateman & Willis, 1999; Cumming & Taylor, 1999; Garrod & Fyall, 1998). Along with the hospitality considering sustainable practices though the travel cost method and contingent valuation methods, many of the sustainable practices are traditionally viewed as independent from other practices (Lightfoot et al., 2013; Erdogan & Tosum, 2009; Rodriquez-Anton et al., 2012).

The travel cost method receives extensive use within the tourism industry to evaluate sustainable programs by targeting a consumer's willingness to pay for the use of

an attraction, recreation, or facility. Yet, the travel cost method neglects other interconnecting spheres such as technology, economics and political shifts in the general economy (Fleming & Cook, 2007). Additionally, the travel cost method becomes invalid when considering guests that use the facility or recreational areas for temporary stops within a longer itinerary or for infrequent gatherings (Fleming & Cook, 2007; Schreiner et al., 1985). Since the travel cost method primarily deals with cost and not the overall ramification of sustainability, using the travel cost method to determine the success of a sustainability programs becomes ineffective (Garrod & Fyall, 1998, Schreiner et al., 1985).

The contingent valuation method evaluates non-market resources, such as environmental impacts and improvement projects (Bateman & Willis, 1999). The contingent valuation method is often associated with granting financial value to sustainable practices (Cummings & Taylor, 1999). The 1980's brought popular acceptance of the contingent valuation method as the United States government (Bateman & Willis, 1999; Jayawardena et al., 2013; Swords, 1991) used the method to sue for environmental damages in cases such as *Ohio v. Department of the Interior* (Swords, 1991). The contingent valuation method currently provides acceptable real estate appraisals, especially in cases of debased property with environmental damage (McLean, Kilpatrick, & Mundy, 1999). Yet, the contingent valuation method primarily deals with cost and not the overall ramification of sustainability, therefore, using the contingent valuation method to determine the success of a sustainability programs becomes ineffective.

Proposed Native method of evaluating sustainable practices within the

hospitality industry. Overall, current sustainable practices within the hospitality industry

tend to be fragmented and geared towards reducing consumption (Jones et al., 2016;

Namkung & Jang, 2013; Upadhyaya & Moore, 2012). Continuous sustainability,

however, is achieved by evaluating sustainable practices through the framework of

interconnecting dimensions, where changes in one dimension affects other dimensions

(Dockry et al., 2016; Gill & Williams, 2011). When implementing sustainable practices

within hospitality, a sustainable practices effects upon various interconnecting

dimensions should be considered. "Nature is cyclical; biological waste in the natural

world provides food for other life-forms… Each benefit in some way from the life of the

others" (Hawken, 2010, p. 47). Therefore, if the interconnecting effect of each dimension

is considered while implementing sustainability, the hospitality industry can produce a

holistic sustainable practice that works to repair the ecosystem instead of simply patching

environmental problems (Burger, 2012; Hawken, 2010).

With headquarters in Keshena, Wisconsin, the Menominee Nation contains one of

the most successful and world-renowned sawmill and timber regions (Dockry et al.,

2016). The Menominee Nation began timbering operations to preserve their land from

potential trespassing logging companies and to provide an income for tribal members

(Beck, 2005). Some of the first federal regulations for the timber industry utilizing

sustainable practices were first successfully initiated at the Menominee Indian

Reservation (Beck, 2005; Dockry, 2012; Dockry et al., 2016).

Since signing a treaty with the United States government in 1854, the Menominee

Nations repelled multiple attempts of relocation (Beck, 2005). Before the 1950's, the

Menominee Nation existed as a successful, sovereign nation (MPM, 2019b), then on June 17, 1954, the United States Congress stripped the nation of their federally-recognized sovereign status with the Menominee Termination Act (MTA, 1954; MPM, 2019a) by enforcing House Concurrent Resolution 108 (HCR 108, 1953) in order to void Menominee tribal affiliation and recognize the Menominee people solely as American citizens (MPM, 2019a). Stripping Menominee sovereign nation status directly increased poverty (Beck, 2005) and decimated basic service such as health care on the former reservation (Menominee Indian Tribe of Wisconsin, 1997; MPM, 2019b). In 1973, the Menominee regained federal-recognition (Beck, 2005).

In the late 20th century and into the 21st century, the Sustainable Development Institute model of sustainability (SDI) developed through a joint project involving the College of the Menominee Nation and the Menominee Tribal Enterprises based on the Menominee Nation's sustainable forestry services (Sustainable Development Institute, n.d.) in order "to understand the success of Menominee forest management, to share the sustainability successes with others" (Dockry et al., 2016, p. 129).

Fortunately, the SDI model (Figure 1) can be applied in the hospitality industry as a starting point for qualitative and quantitative evaluation of current sustainable practices and challenges for crafting solutions from multiple viewpoints (Dockery, 2014; Dockry et al., 2016; Center for Sustainability, 2011; Sustainable Development Institute, n.d.). The SDI model encompasses the interconnecting spheres impacted by sustainable practices (Dockry et al., 2016). The SDI model measures sustainability not strictly in finances or perceived future actions, but by incorporating past, present and future effects (Alvarez, 2011; Dudgeon, 2003; Marchland et al., 2013). This theoretical model of sustainability

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(SDI) "conceptualizes sustainable development as the process of maintaining the balance of reconciling the inherent tensions among six dimensions of sustainability" (Dockry et al., 2016, p. 127). These categories "include: (1) land and sovereignty; (2) natural environment (which includes human beings); (3) institutions; (4) technology; (5) economics; and (6) human perception, activity, and behavior" (Dockry et al., 2016, p. 129). These six dimensions formulate the interactive and multidimensional considerations for complex sustainable practices.

The SDI model incorporates sustainable practices as a whole, interconnecting, multi-sphere process (Dockry et al., 2016). The SDI model defines sustainable practices and their influence upon interconnecting spheres outside the hospitality industry in industries of education (Piner & Paradis, 2004; Willow, 2010), forestry (Dockry, 2012; Lightfoot et al., 2013; Long et al., 2003; Marchland et al., 2013; Wang, 2018), horticulture (Dockry, 2012; Dockry et al., 2016; Long et al., 2003) and community development (Centre for Sustainability, 2011; Gill & Williams, 2011; Onondaga Nation, n.d.).

The dimension of land and sovereignty (Figure 1) includes the groups-

organizations having direct governing control over the land, including local, state, and

federal governments (Jayawardena et al., 2013), housing and social welfare departments

(Gill & Williams, 2011). Tribal sovereignty involves the act of having political authority

over their members (Cattelino, 2008), education options (Magni, 2017) and land

(Cattelino, 2008), along with the ability to interact business-to-business, government-to-

government (Cattelino, 2008) and to address, engage, design and assess the needs of the

community (Dockry et al., 2016; Dreveskracht, 2013). The management of a resort

resides within both the spheres of land and sovereignty, and institutions.

Gill and Williams (2011) discovered that regional impact and prior decisions

impact the application of sustainable practices in resort management. Frazier (1997)

reinforces the belief that managers need to look at the past to understand the future as

past actions predict future outcomes. Planning for a facility's long-term goals and actions

remains the first and the most sustainable method that managers can utilize (Erdogan &

Tosun, 2009).

The natural environment (Figure 1) dimension encompasses natural resources,

including rocks, animals, air, and people and their communities, (Dockry et al., 2016). As

with land sovereignty, the natural environment dimension can also include food and

water availability (Gill & Williams, 2011). Within hospitality tourism, environmental

practices often produce a symbiotic relationship that expands culture, knowledge and

diversity (Xu & Fox, 2014) resulting in financial (Rodriquez-Anton et al., 2012) and community profitability (MacDonald & Jolliffe, 2003).

The institution dimensions (Figure 1) include interactions between nature, animals and humans (Dockry et al., 2016) and the "structures that develop and enforce rules of behavior and social interactions" (Dockry et al., 2016, p. 129), such as schools, families, health departments, waste facilities, and organizations (Gill & Williams, 2011). Hotels and resorts also allow for the opportunity to create a lifestyle of sustainability with resort employees and guests instead of a hodge-podge, weekender's approach (Jones et al., 2016; Kirk, 1995; Lim, 2016). Afterall, a close relationship between conservation and lifestyles determines the extent of sustainability a firm utilizes (Chan, 2011).

The technology dimension (Figure 1) accommodates both historical and modern advancements, as well as accessibility to information via computers, education, and other venues for the dissemination of information (Dockry et al., 2016; Gill & Williams, 2011). Often the drive toward sustainability promotes the introduction of new and smart technologies into the industry (Jayawardena et al., 2013; Jones et al., 2016). However, technologies, especially hardware, regularly require non-renewable extractions to build and maintain the technology (Brady & Monani, 2012). Ultimately, the current cultural standards and influences of technology on general population are directly proportional to the population's access to available natural resources and the immediate impact upon entrainment (Jayawardena et al., 2013).

The economic dimension (Figure 1) incorporates the multiple levels of financial influence, including potential and actual personal, local, state, national, and global economic impact (Dockry et al., 2016). Being committed to sustainability involves

investing funds upfront and sacrificing the short-term gains for long term benefits in numerous interconnecting spheres (Jones et al., 2016). Two advantages of implementing sustainable practices in resorts are an increase of customer-employee relationships (Kirk, 1995) and guest satisfaction (Rodriguez-Anton et al., 2012) which ultimately lead to increased potential profits (Rodriquez-Anton et al., 2012; Wan et al., 2017).

Human perception, activity and behavior form the sixth dimension of the SDI model (Figure 1). This dimension comprises of perceptions, both individual and communal, cultural beliefs, traditions, practices, housing, recreation, and how individuals learn (Gill & Williams, 2011). Local communities benefit directly from the hospitality industry with increases in regional tourism (Thanvisitthpon, 2016). A vital component of any hospitality facility is creating a community culture (MacDonald & Jolliffe, 2003). After all, good relationships between customers, managers, employees, and the community provides a competitive advantage (Moreo et al., 2009; Thanvisitthpon, 2016; Wan et al., 2017). Kim et al. (2016) examines these relationships concerning the application of sustainable practices while reiterating that sustainability encompasses more than simply reuse, reduce and recycle, and includes promotion and maintenance of the community's local culture. Kirk (1995) concludes that teaching and investing in employee's knowledge promotes the use of sustainable practices.

Cultural sustainability can be promoted within hospitality facilities (MacDonald & Jolliffee, 2003) when the facilities offer traditional language, history, or craft classes (Dockry et al., 2016; Chang, 2015; Gritter et al., 2016), for all people: employees, guests and communities (Erdogan & Tosun, 2009). Hotels can also provide information to

guests about what sustainable practices the facility utilizes, thus, increasing customer awareness.

While considering a sustainable practice, it remains crucial within the SDI model to identify, evaluate and ascertain solutions to problems and effects within each of the six dimensions (Dockry et al., 2016) keeping in mind that each dimension interacts and depends on the other dimensions (Figure 1). This ability remains beneficial because it incorporates local cultural norms and values, and in turn, allows for the general acceptance and promotion of sustainable practices (MacDonald & Jolliffe, 2003). This does not imply that all cultural norms should be readily accepted, especially those that have adverse environmental impact, but should be revisited and modified through education and training (Kasim et al., 2014; Upadhyaya & Moore, 2012). "Once the SDI model is used to identify these tensions, it can be used to develop potential solutions" (Dockry et al., 2016, p. 131) to complex sustainable practices. Additionally, if people view themselves as having a connection and a sense of belonging to the land and their community, people make informed sustainable decisions because their actions intimately impact their descendants (Bremner & Wikitera, 2016; Piner & Paradis, 2004).

The SDI model in practice. The SDI model allows for a long-range sustainable development vision (Sustainable Development Institute, n.d.) and "ensures that each scenario was discussed holistically by forcing participants to address system drivers and the relationships among drivers for each SDI model dimension" (Dockry et al., 2016, p. 135). Consequently, it results in a cohesive and dynamic sustainability plan that can be understood, accepted, observed, and employed (Marchland et al., 2013; Long et al., 2003; Jayawardena et al., 2013).

The resort community of Whistler, in British Columbia is one location that uses the SDI model (Gill & Williams, 2011). In the late 20th century, Whistler's government initiates a "legal framework and policies for regulating land use and real estate development, infrastructure services, and the protection of the natural environment within Whistler's boundaries" (Gill & Williams, 2011, p. 635) and emerges as a community focused region. Gill and Williams (2011) studies the governance/sovereignty of the Whistler Resort community while concurrently studying how the governance/sovereignty of Whistler impacts Whistler's institutions, economics, and natural environment as separate categories within governance. At that time, Whistler, British Columbia, also initiats methods to measure their performance in economic, environmental and social change (Waldron & Williams, 2002).

The Mashantucket (Western) Pequot Tribal Nation in Mashantucket, Connecticut, bases their sustainable timber program from the United States Forest Service sustainable forestry plan (Taylor, 2019). The menominee Nation's sustainable timber program provides the practical basis for the SDI model (Dockry et al., 2016) and directly influences and the United States Forest Service sustainable forestry plan (Beck, 2005; Dockery et al., 2016).

"While based upon the Menominee experience, the SDI model can be used to understand universal principles of sustainability and can be an effective model to integrate sustainability science into interdisciplinary projects for both American Indian and non-Indian communities." (Dockry et al., 2016, p. 127). The SDI model of sustainability stands as applicable in multiple venues from the sustainable practices utilized by the Menominee Nation since 1856 in their sustainable management of forests

(Beck, 2005; Dockry, 2012), Homestake Mining Company at the Homestake Mine (Homestake, 2000) and the Osoyoos Integrated Community Sustainability Plan with the development of their resort and associated vineyards (Centre for Sustainability, 2011). The SDI model of sustainability could be applied and has been applied in both Native American and non-native settings (Dockry et al., 2016).

Moreover, Gill and Williams (2011) argue that bringing the interconnecting forces and processes into resorts would help reveal unsustainable dependencies and adopt policies for better innovation and adaptation. By evaluating the interconnecting dimensions affected by sustainable practices (Dockry et al., 2016), a comprehensive understanding of the effects of sustainable practices and potential sustainable development within the hospitality industry becomes feasible (Alvarez, 2011; Bremner & Wikitera, 2016; Fuller, 2016).

Non-indigenous opposition to indigenous sustainable practices. There are individuals who argue that society should not study indigenous sustainability practices for a variety of reasons (Callicott, 1982; Fennell, 2008; Martin, 1978). First, opposition to using Native Americans as a study focus, both conceptually and practically, include the belief that large facilities have a monetary focus and that monetary wealth rejects perceived indigenous cultures and traditions (Cattelino, 2008; Willow, 2010). However, Cattelino (2008) points out that the Florida Seminole Nation consider the creation of large corporations and hospitality facilities that bring substantial monetary funds into the tribe a means to promote and enhance their traditions and culture and support tribal sovereignty so that they can care for their people and lands. Dreveskracht (2013) also points out that "many successful tribal development planners have noted that 'developing

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reservation economies is *vital* to sustaining and developing Native American cultural identities'" (p.125). Accumulating wealth enables various indigenous nations to revitalize, preserve and showcase their cultures and traditions (Cattelino, 2008; Dreveskracht, 2013; Willow, 2010).

Second, due to historical adversarial treatment between Natives and non-Natives, both individually and corporately, including historical trauma, fraud and forced impoverishment there exists a perceived belief that each group should remain separated (Cattelino, 2008; Dreveskracht, 2013; Murry et al., 2013; Willow, 2010). Yet, each tribe and surrounding community consists of a diverse multinational group (Murry et al., 2013). Hannah (2018) addresses the assimilation process of the Cherokee Indians as a strategic move to retain their culture, traditions, and language while being able to perform business on an even playing field.

Third, a perceived belief holds that Native Americans possess an aversion to utilizing modern technology (Murry et al., 2013). Yet, approximately 75% of the Tribal Nations display an interest in researching, funding, and hosting renewable energy systems on tribal lands (Acker et al., 2003; Nine Tribes, 2013) including the use of advancing technology to achieve energy independence or efficiencies (Acker et al., 2003; Potter, 2010). Due to the common application of a demonstrative, oral teaching style, many educators and businesses fail to acknowledge and utilize indigenous knowledge (Dudgeon, 2003; Lightfoot et al., 2013; Nakashima & Roué, 2002; Reynolds, 2003; Willow, 2010). Ironically, "it may take scientists years to validate what local indigenous people know about their environment" (Leonetti, 2010. p. 8). Thus, Native Americans remain in the position of utilizing modern technologies without the legal codes tendered

upon non-native lands (Brady & Monani, 2012; Dreveskracht, 2012). Stump (2010) points out that prolonged occupation of the native lands and their resources are often mistaken as indigenous sustainability voiding tribes of the value of their indigenous knowledge pertaining to sustainable development within their territories.

Fourth, while mainstream science tends to prefer dichotomies, dividing topics into parts (Dockry et al., 2016; Johnson, Howitt, Cajete, Berkes, Louis & Kliskey, 2016; Nakashima & Roué, 2002), such division contributes to limitations within science and technology (Frazier, 1997) and tends to negate indigenous knowledge. Indigenous knowledge presumes that all things are linked and function as a unit (Nakashima & Roué, 2002; Reynolds, 2003). Magni (2016) further argues that science and indigenous knowledge are complementary and to fully understand nature and the interworking of the biosphere, these two fields must be combined.

Fifth, other researchers (Brady, & Monani, 2012; Willow, 2010) perceive the indigenous people with a romantic version of reality that altered once the indigenous people submitted to colonizing governments. Additionally, Willow (2010) found that while researching indigenous lifestyles, many scholars commonly portray indigenous life as past, not current.

Sixth, while cognitively mining indigenous groups for indigenous knowledge, the actual knowledge of the indigenous group is often dismembered or taken out of context for numerous situations and processes (Larned, 2018; Nakashima & Roué, 2002) or divorced from the source that the knowledge was acquired (Bonhoeffer, 1959).

Limitations of prior research on indigenous sustainable practices relative to hospitality. Research into application of indigenous knowledge relative to sustainable practices have been conducted in horticulture (Marchland et al., 2013), agriculture (Lightfoot et al., 2013; Egelhoff, 2015), water management (Black & McBean, 2017), education (Chang, 2015; Van Cooten, 2014; Willow, 2010), and trade (Hannah, 2018). Yet, prior research into the application of indigenous knowledge relative to sustainable practices utilized or potentially utilized within the hospitality industry remains either minimal, unpublished or non-existent (Throsby, 2016). Furthermore, research and documentation into indigenous sustainable practices and historical application currently employed in Native American owned or operated resorts continues to be tenuous in volume.

The goal of this study. The goal of this study is to identify sustainable practices utilized in the Native American owned or operated resorts, while comparing the sustainable practices through the Sustainable Development Institute model for sustainability (SDI). This study in no way produces a comprehensive understanding of all or most tribal affiliations or shared cultural philosophies, but instead strives to offer orientating points that can help in understanding how the history of a group presides over the application and presentation of various sustainable practices, and to show how politics, shared culture priorities, economy, and history may interconnect (Cattelino, 2008).

Various models of evaluating sustainable practices within the hospitality industry and indigenous knowledge were discussed. Yet, each model renders itself either incorrect (total cost method), incomplete (contingent valuations method), or not generally used

(Sustainable Development Institute, n.d.) within the hospitality industry. Additionally, while numerous sustainable practices currently exist within the hospitality resort industry, these sustainable practices have yet to be studied with application as to how their interconnecting influences upon the multiple dimensions impacts the hospitality facility.

This literature review discusses sustainability and sustainable practices within the hospitality, indigenous philosophy regarding sustainable practices and indigenous historical sustainable practices. Yet, these questions remain: (1) What different types of sustainable practices are currently utilized within modern Native American resorts? (2) What are the possible relationships between a sustainable practice and the various dimensions of the SDI model with indigenous resorts? These questions are not answered within existing literature.

CHAPTER III

METHODS

Research Design. This study applied a qualitative approach, specifically

Thematic Analysis. It used exploratory research to identify sustainable practices utilized

in Native American owned or operated resorts, categorize the sustainable practices within

the SDI model, and compared the sustainable spheres.

Thematic Analysis, a qualitative approach, aimed for the identification of patterns

which mirrored quantitative content analysis (Braun, Clarke, Hayfield, & Terry, 2018).

One distinct difference between content analysis and thematic analysis was that thematic

analysis can be utilized for both a deductive or inductive analysis of the data which

allowed for greater flexibility with data and interpretation (Clarke & Braun, 2017;

Nowell, Norris, White, & Moules, 2017).

Thematic Analysis research involved two ideas: domain summary and shared

meaning-based patterns, while incorporating three schools of thought: coding reliability,

reflexive approach, and codebook (Braun et al., 2018). The current study focused on

shared meaning-based patterns and coding reliability (Braun et al., 2018). Shared

meaning-based patterns habitually organized around a core concept; coding reliability

allowed for and was driven by predetermined themes (Braun et al., 2018). Utilizing

predetermined themes followed a deductive theory-driven approach and allowed the researcher to examine virtues held or actions taken by specific groups in relation to specific theories of models (Clarke & Braun, 2017; Selvam & Collicutt, 2013).

Similar to Selvam and Collicutt's (2013) study of core virtues of psychology held in African traditional religions, this study also utilized the core concepts of a specific model (SDI) in relation to the presented activities performed by Native American owned or operated resorts. As each Thematic Analysis school of thought significantly overlapped (Braun et al., 2018), the SDI spheres overlapped with the effects of sustainable practices (Dockry et al., 2016). The researcher incorporated coding reliability, reflexive approach, and codebook within this study.

In order to accomplish the objectives of this study, qualitative data was collected through publicly accessible documents. Within this study, significant portions of the data were collected online, through official tribal webpages, resort webpages, government websites, and presentations, or in print with books, trade journals and newspapers.

Population and sampling. The population for this study was Native American Nations in the contiguous United States and Canada, equaling more than 600 tribes. The sample within the population included only Tribal Nations that owned or operated resorts, narrowing the sample number closer to 200 tribes. The researcher selected the resorts from a list compiled from 500Nations.com, Indian Country News, and various travel blogs. In order to narrow and select the resorts, purposive sampling (Saldaña & Omasta, 2017) was applied.

Within qualitative studies the definitive sample size for a sample differed greatly depending on the researcher and the topic (Braun et al., 2018). Hennink, Kaiser, and

Marconi (2016) stated that 10-24 participants remained the preferred sample size in qualitative studies. Yet, Braun et al. (2018) stated that there is no maximum, although five was the smallest sample size preferred. Clarke and Braun (2017) and Cedervall and Aberg (2010) stated that if the data remained creditable, manageable, and dependable, then a sample of one remained sufficient. This study was on the lower end of sample size (four), but since the sample size was manageable (Saldaña & Omasta, 2017) and dependable (Nowell et al., 2017), the sample size was sufficient.

According to the definition given by and Doganer (2014), Engineering Insights (2018), Kasim et al. (2014), Lou and Hsieh (2019), a resort exists as an establishment built with relaxation amenities, including, but not limited to, hotel rooms, sports-music venues, conference centers, retail shops, on-site food and beverage services, pool or spa facilities, fitness centers, casinos and lounges, and external services which enhance a customer's experience and relaxation. In addition, all facilities were Native American owned or operated to be considered within this study. To the best of the primary investigator's knowledge, there were 103 resorts within the contiguous United States and Canada (Appendix A) that fall within these parameters, thus, qualified for this study.

To further narrow down the number of potential resorts, the researcher required that each resort offer at least seven amenities correlating with the concept that seven generations endured as a significant length of time to multiple Native American Nations when making large decisions (Alvarez, 2011; LaPorte, 2017; Larned, 2018; Lee, 2016; Lightfoot et al., 2013; Magni, 2017). Therefore, based on the above definition, the current study based its parameters on the resorts that offered seven or more of the following amenities:

▪ 100 + rooms	▪ On-site full-service dining	▪ On-site spa
▪ Event center	▪ Conference center	▪ Casino
▪ On-site retail	▪ Golf Course	▪ Outdoor activities
▪ On-site Bar	▪ Pool	▪ On-site fitness

The resorts that met at least seven of the twelve previously mentioned parameters, equaled 74 resorts. The 74 resorts were then separated into four categories based on their geographic locations (quadrants) within the contiguous United States and Canada (Figure 2). Subsequently, this researcher looked at the size of the tribe, location of the resort (urban or rural), and the number of parameters that matched the criteria for a resort. The four chosen resorts constituted one resort per each geographic quadrant that held the most matches within in the twelve parameters and stated on the tribal or resort webpage that the resort was: 1) either a resort or casino; 2) largest in the region; or 3) brought the tribe from poverty to prosperity (Benedict, 2000; Cattelino, 2008; Eisler, 2002; Koenig, 2019b; Macdonald, 2017; Spilde, 2004).

Figure 2: Geographic map of resorts

Accordingly, the final four resorts included Foxwoods Resort Casino of the Mashantucket Pequot Tribal Nation in Connecticut, Hard Rock Hotel and Resorts of the Seminole Tribe of Florida, Pechanga Resort and Casino of the Pechanga Band of Luiseño Indians in California, and Spirit Ridge (NK'MIP) Resort of the Osoyoos Indian Band in British Columbia, Canada.

Data Analysis. Data was analyzed using Thematic Analysis, specifically two schools of thought, coding reliability and reflexive approach. The researcher used coding reliability and ensured proper categorization of the data underneath pre-determined themes (Braun et al., 2018) designed and published by Dockry et al. (2016) and Sustainable Development Institute (n.d.). The usage of coding reliability allowed for an external check for both the raw and categorized data (Nowell et al., 2017). After categorizing the data, the researcher utilized reflexive phases within the predetermined themes to split, rename, or combine the data and themes (Braun et al., 2018), as well as potentially created groupings or sub-spheres within the dominate SDI model (Dockry et al., 2016; Nowell et al., 2017) (Appendix C).

The publicly accessible documents, website pages, for each of the four Native American tribal owned or operated resorts and the corresponding tribe were reviewed for information relevant to the predetermined themes (Braun et al., 2018) of the SDI model's six spheres: "(1) land and sovereignty; (2) natural environment (which includes human beings); (3) institutions; (4) technology; (5) economics; and (6) human perception, activity, and behavior" (Dockry et al., 2016, p. 129).

Braun et al. (2018) emphasized that in order to focus and drive data collection while utilizing Thematic Analysis, the researcher was required to ask questions of the

data. Thus, the researcher focused on the current studies objective and the ability to identify a resorts sustainable practice. At the same time, each practice was categorized within the SDI model, questions were asked and answered by the researcher for various websites and documents. These questions included but were not limited to:

1) What sustainable practices does the resort participate in?

2) What sustainable practice does the tribe mention on their webpage?

3) Where does a particular practice fit within the six spheres of the SDI model?

4) Does this practice fit within more than one SDI model's sphere?

5) How do the noted sustainable practices collectively compare within the SDI model?

The presented data accommodated each resort and corresponding Tribal Nation with their own section which consisted of their tribal name, location, tribe population size, a brief history of the tribe, the number of resorts owned or operated by the tribe, a list of sustainable practices which the resort utilized, and which SDI model sphere the sustainable practice effected. Finally, compilation lists (Tables 11-12) and diagrams (Figures 3-7) represented the sustainable practices applied by the four different resorts within the SDI model. This compilation list and diagram showed the similarities and differences (Braun & Clarke, 2006; King, 2004; Nowell et al., 2017) of each resort's sustainable practices within the SDI model. This phase of data analysis within Thematic Analysis, called formularization, consisted of a data collection process that remained nonjudgmental, relaxed, and engaged (Braun et al., 2018). At this point the researcher took notes without formal labels (Braun et al., 2018).

The next steps consisted of data from each resort and tribal webpage being analyzed. The researcher used deductive orientation within coding reliability (Braun et al., 2018) and ascertained sustainable practices utilized within the four resorts. The six predetermined themes used to categorize the data were the six dimensions from the SDI model of sustainability (Figure 1). These six dimensions "include: (1) land and sovereignty; (2) natural environment (which includes human beings); (3) institutions; (4) technology; (5) economics; and (6) human perception, activity, and behavior" (Dockry et al., 2016, p. 129).

To calculate Cohen's Kappa the researcher presented a comprehensive list of sustainable practices and programs to a peer (McHugh, 2012; Nichols, Wisner, Cripe, & Gulabchand, 2010). To avoid the potential duplication of sustainable practices, an alphabetized list of sustainable practices performed at each resort was given to the peer for review and categorization per resort. The peer reviewer received instructions to categorize each sustainable practice or program within one or more of the six predetermined themes, which mirrored the six dimensions of the SDI model of sustainability. All practices were divided between the six themes with an overall 0.80 match using Cohen's Kappa (Braun et al., 2018) between the peer reviewer and the researcher (Appendix B). Each resort's Cohen's Kappa coefficient was reported within the individual resort's section in Findings.

Both researcher and peer utilized the reflexive approach of Thematic Analysis to further analyze the data and construct sub-themes within the six dimensions. As stated by Braun et al., (2018) a score (using Cohen's Kappa) equal to or greater than 0.80 is thought of as being most reliable and accurate coding, where scores between 0.60 and

0.79 are reliable and accurate with discussion. The researcher discussed with the peer

reviewer about what sustainable practices were located under each theme (McHugh,

2012; Nichols et al., 2010).

This study utilized a single method of data collection and a peer reviewer to avoid

single investigator bias (Denzin, 1978, Lincoln & Guba, 1985) alongside the consistency

of data categorization underneath the SDI model. Utilizing a peer reviewer provides a

"guard against the accusation that a study's findings are simply the artifact of a single

method, a single data source, or a single investigator's bias" (Henderson, 1991, 11).

The separate analysis from a peer reviewer provided consistency to the

sustainable practice categorizations (Decrop, 1999; Lincoln & Guba, 1985). Utilizing a

neutral peer to analyze the data was consistent with Decrop (1999) and Riley (1995).

Furthermore, Cohen and Crabtree (2006) pointed out that utilizing a neutral peer reviewer

is not to seek a consensus on the findings but an endeavor to understand the multiple

ways in which the data could be viewed.

Potential bias. As with all qualitative studies (Lincoln & Guba, 1990), the current

study contained researcher bias. The first bias rested on the fact that the researcher chose

to limit the representative sample of potential resorts to Tribal owned or Tribal operated

resorts geographically located in the United States or Canada (Figure 2). This decision

was based upon the disingenuous, historical treatment of indigenous civilizations

(Arcker, 2003; Beck, 2005, Callicott, 1982; HCR108, 1953; King, 2012; Larned, 2017;

Menominee, 1997; Willow, 2010) like forced migration (Hannah, 2018; Office of the

Historian, n.d.) and events that decimated native traditions and indigenous cultures (NET,

2019; NPS, 2019). In addition, the assimilation of various tribal groupings into

surrounding tribal groupings was assumed (Benson, 2007; Clark, 2008; Steffans, 2019) since evidence of historical sustainable practices remained to mark their existence (Arizona, 2012; Baires, 2015; Haury, 1965; Tempe, n.d.; Yates, 2014). To reduce this first bias the researcher choose resorts that resided in different geographical regions, experienced distinct regional histories, and offered varying ownership and management.

The second bias was that with the plethora of sustainable practices or programs at each of the four resorts, the researcher made a subjective choice and picked one sustainable practice and demonstrated how the sustainable practice fit within the six dimensions of the SDI model. A singular practice per resort demonstrated how the sustainable practice influenced the SDI model dimensions and showcased a unique sustainable practice for each resort. Following an explanation of how the practices fit within the specific theme, Figure 3 through Figure 6 displayed the four chosen sustainable practices or programs. To reduce this second bias the research integrated the Themes in a comprehensive list (Table 11) of the sustainable practices and programs that all four resorts participate in and analyze the sustainable practices and programs that were similar yet unique to each resort (Figure 8).

CHAPTER IV

FINDINGS

While collecting and analyzing data from four Native American owned or

operated resorts webpages, corresponding tribal webpages, and other publicly assessable

documents, this researcher looked for sustainable practices utilized within the resorts and

community engagement activities that the resort promotes. As a result, it became

apparent that a brief history of each tribe that owned or operated the chosen resorts was

necessary. As the Osoyoos Indian Band (2018) noted, "we strengthen our future by

protecting our past" (p. 2). The Tribal Nations of the four resorts studied experienced

troubled times in their past (HCR 108, 1953; King, 2012). Yet, their respective resorts

became the means that catapulted the Tribal Nations from poverty to prosperity

(Benedict, 2000; Eisler, 2002; Koenig, 2019b; Macdonald, 2017; Spilde, 2004).

Information concerning the Tribal Nations included their name, where they reside,

a brief history of the tribe, when the tribe became federally recognized as a sovereign

nation, how the tribe entered the hospitality industry, and what amenities and activities

each resort offered. A brief history of each Tribal Nation and other information about the

facilities provided background information about the motivation behind some of the

sustainable practices the resorts utilized. Without knowing the history of the sovereign

nations, the separation of information from its original source could lead to confusion, misunderstanding, or misinterpretation (Bonhoffer, 1957) of the sustainable practices.

A list of the sustainable practices utilized at the resort follows tribal background information. Then, the identified sustainable practices categorized into the SDI model framework (Tables 1-4). Additionally, Figures 3-6 showcased a specific sustainable practice that the resort used and how the one practice applied each of the six SDI model themes graphically represented the categorization of the sustainable practice within the SDI model. A singular practice or program per resort was chosen for clarity and demonstration of how the SDI model works to evaluate sustainable practices. After the presentation of each resort's analyzed data, a combined data set shows the sub-themes or dimensions of the SDI model.

Foxwoods Resort Casino

The Mashantucket (Western) Pequot Tribal Nation, also known as 'the Fox People', own and manage Foxwoods Resort Casino. Historically, the Pequot resided in southeastern Connecticut. Headquartered in Mashantucket, Connecticut, Pequot tribal membership was based upon an individual being a progeny of a Pequot listed in the 1900 and 1910 United States census.

The Pequot reservation was one of the first reservations in North America; the reservations started about 350 years ago (Taylor, 2019). This self-governing Algonquin community predated colonial Connecticut. Pequot people resided in the region for over 10,000 years (MPTN, 2019c). However, the Pequot War (1636-1638) changed the course of life for the tribe. The Pequot War hold the infamous position of being the first major

conflict with the invading colonists. The final battle of the Pequot Wars was the Massacre at Mystic Village (sometimes referred to as Mystic Fort) where over 400 Pequot met a fiery death and survivors were traded as slaves to the Mohegans, West Indies, or delivered as property throughout the region (MPTN, 2019c). Prior to the Pequot War, tribal members numbered about 8000 (MPTN, 2019c). After the Pequot War, the remaining Pequot numbered only 151 people (MPTN, 2019c). Of the survivors, some moved to what became the State of New York and the State of Wisconsin.

In 1856, the State of Connecticut sold the Pequot reservation lands under the Settlement Act. In turn, only 213 acres of the original reservation remained (MPTN, 2019c). In the 1970's the descendants of the original Pequot people started to return to the ancestral land with the intent to restore land, community, self-sufficiency, and tribal culture to their people (MPTN, 2019b). They sued the surrounding landowners for illegal confiscation of their land by the State of Connecticut in 1856 (MPTN, 2019c). Through a series of avant-garde legal associations, the Mashantucket Pequot collectively petitioned the United States Congress for their land and sovereignty. The Mashantucket Pequot Indian Land Claims Settlement Act was unanimously passed by the United States Congress and became law in 1983 (MPTN, 2019c). The Pequot reservation currently incorporates about 1,250 acres into their reservation. With the 1983 congressional action, the Pequot received federal recognition as a North American tribal entity.

In 1993, the Pequot Tribal Nations entered a revenue sharing agreement with the State of Connecticut. Within this Agreement the goals of the Mashantucket Pequot sustainable programs were expressed:

The Mashantucket Pequot Tribal Nation shall promote spirituality, strong family

values, education, social stability, economic independence, and the well-being of

Tribal members, employees, and guests in a healthy and supportive environment.

The ultimate goal is to protect and advance the sovereign rights of the Tribal

Nation in order to build and preserve a cultural, social, and economic foundation

that can never be undermined or destroyed (MPTN, 2019b, p. 1).

Currently, the expansive sustainable practices utilized within the Foxwoods

Resort Casino represent "merely one example of the growing trend across Indian

Country, as tribes continue to advance their economic development initiatives in ways

that conserve energy, reduce unnecessary waste and leverage natural resources in the

most efficient ways possible, embracing core values for environmental stewardship and

setting the pace for higher standards in corporate social responsibility" (Potter, 2010,

p.43).

The Pequot moved into the hospitality venue with one of the first tribal bingo hall

in 1986 (MPTN, 2019a). Due to the bingo hall's popularity with the surrounding

community, Foxwood Resort Casino began construction in 1992. The following year,

1993, the Museum and Research Center opened on the property. The Foxwoods Resort

Casino currently contains five hotels: Grand Pequot Tower, The Villas, Great Cedar

Hotel, Two Trees Inn, and the Fox Tower for a total of 2,230 rooms. It has fifty-five

restaurants plus additional lounges, five ballrooms, night clubs, and seven on-site casinos

and a free-to-play online casino. Recreation offerings within the resort include: 120 stores

for various shopping pleasures, a craft and pottery creation shop, two spas, three golf

venues, a bowling facility, a zip line, an arcade, a karting center, escape rooms, two

theaters for a total of 5,400 seats, scenic hiking trails, various outdoor venues for events, and even a Virtual Reality gaming and attractions center (Foxwoods Resort Casino, 2019). In addition, the site houses the Mashantucket Pequot Museum and Research Center (Foxwoods Resort Casino, 2019).

Foxwoods Resort Casino operates as a premier resort destination in the New England, northeastern, United States. The Mashantucket Pequot tribal government manages and regulates all uses of tribal resources, programs, services, and lands including the Foxwood Resort Casino (Foxwood Resort Casino, 2019). Currently, the Foxwoods Resort Casino enterprise directly and indirectly accounts for about 12,500 jobs (Taylor, 2019) for Mashantucket Pequot members and non-tribal members.

Table 1 presents the sustainable practices that were extracted from Foxwoods Resort Casino and Mashantucket Pequot official websites, then categorized under the six dimensions of sustainability in the SDI model. When compared to a peer's practices and categories, the Cohen's Kappa (Braun et al., 2018) for Land and Sovereignty was 0.77; for environment 0.63; Institutions 0.78; Technology 0.82; Economics 0.65; and Human perception, activity, and behavior held a 0.66 Cohen's Kappa (Appendix B).

Table 1

Sustainable practices at Foxwoods Resort Casino

Theme	Sustainable Practice
Theme 1: Land and Sovereignty	Co-creation of exhibits with other indigenous tribes[1, 5]
	Co-generating heat and power plant – low and clean emissions[7]
	Comprehensive healthcare[8]
	Employee emergency assistance funds[8]
	Engaging community through volunteering[1, 3, 5]
	Fast emergency services[8]
	In-kind contribution[3]
	Interactive villages and exhibits[5]
	Life-long disability services[8]
	Partnership with other governments[1, 8]
	Rain harvesting[7]
	Reclaiming waterways projects[6]
	Video documentation of tribal histories, languages and culture[5]
	Woodland with sustainable timer management[8]
Theme 2: Environment	Co-generating heat and power plant – low and clean emissions[7]
	Culture of volunteerism and community engagement[1, 3]
	Gray water reuse[8]
	Green roofing[8]
	On-demand heating and cooling[7]
	Rain harvesting[7]
	Reclaiming waterways projects[6]
	Recycling – wood pallets, glass, metals, plastics, cardboard, paper, cartons, crates, kegs, cooking oils, cigarette butts[7]
	SMART architecture to interact with environment[5, 8]
	Swamp restoration[8]
	Woodland with sustainable timer management[8]
Theme 3: Institutions	Co-creation of exhibits with other indigenous tribes[1, 5]
	Culture of volunteerism and community engagement[1, 3]
	Interactive villages and exhibits[5]
	Low budget housing[8]
	Opening education on finances, leadership, academic, and cultures[8]
Theme 4: Technology	Artifact replica productions[1]
	Co-generating heat and power plant – low and clean emissions[7]
	Electric car charging stations[2]
	Green roofing[8]
	Infrared closed captions, multisensory displays[5]
	On-demand heating and cooling[7]
	Rain harvesting[7]
	SMART architecture to interact with environment[5, 8]
	Video documentation of tribal histories, languages and culture[5]
	Woodland with sustainable timer management[8]
Theme 5: Economics	Anti-Poverty Programs[8]
	Arts and crafts display and production by indigenous individuals[1]
	Co-generating heat and power plant – low and clean emissions[7]
	Complementary shuttles[3]
	Donations and program sponsorship[8]
	Farm to table food[4]
	In-kind contribution[3]
	Local building material[8]
	Low budget housing[8]
	Rain harvesting[7]
	Tuition reimbursement[8]

Table 1 continued

Theme	Sustainable Practice
Theme 6: Human Perception, Activity, and Behavior	Artifact replica productions[1]
	Arts and crafts display and production by indigenous individuals[1]
	Benefit events[3]
	Child and elder care[8]
	Co-creation of exhibits with other indigenous tribes[1, 5]
	Complementary shuttles[3]
	Culture of volunteerism and community engagement[1, 3]
	Electric car charging stations[2]
	Employee short term counselling[8]
	Engaging community through volunteering[1, 3]
	Farm to table food[4]
	Fast emergency services[8]
	Financial and legal services[8]
	Infrared closed captions, multisensory displays[5]
	In-kind contribution[3]
	Tuition reimbursement[8]

Sources:	[1] Foxwoods Resort Casino (2019a); [2]Foxwoods Resort Casino (2019b); [3]Foxwoods Resort Casino (2019c); [4]Foxwoods Resort Casino (2019d); [5]MPMRC, (2019a); [6]MPMRC, (2019b); [7]Potter, L., (2010); [8]Taylor, J. B., (2019).

Theme 1 – Land and Sovereignty. Within this theme the Mashantucket Pequot "reassert self-governing rights and back those rights with institutions capable of exercising them" (Cornell & Kait, 1997, p. 1). Their inherent right to self-govern grants them the ability to improve the lives and policies within their land to increase sustainable practices, maintain comprehensive healthcare, institute faster emergency services, and develop long-term, diversified economic projects and reach self-reliance (Taylor, 2019).

In addition to the casino, land ownership allows the Mashantucket Pequot to build a co-generating heat and power plant on the Foxwoods Resort Casino property (Potter, 2010), implement reclamation waterway projects, operate a woodland with sustainable timber management, and take advantage of options for eco-tourism (Foxwoods Resort Casino, 2019a; Potter, 2010).

Mashantucket Pequot tribal sovereignty allows for the nation to function as its own government. Thus, joining partnerships with other government entities, both tribal and non-tribal, including town, county, state, or the federal government. Past examples include the establishment of Tribal Department of Motor Vehicles services and associated tax exemptions or establishing safety standards (Foxwoods Resort Casino, 2019a; MPTN, 2019b; Taylor, 2019).

As a sovereign nation and a major employer on the Mashantucket Pequot reservation Foxwoods Resort Casino engages the community through volunteerism, in-kind contributions, and financial support via donations and program sponsorship for autism awareness, breast cancer research, boy's and girl's clubs, and veteran recognition/assistance programs (Foxwoods Resort Casino, 2019a, 2019c; Taylor, 2019). To promote tribal sovereignty, The Foxwoods Resort Casino engages in educational programs from interactive villages, to encouraging co-creation of exhibits with other indigenous tribes, to the production of videos and documentation of tribal history, language, and culture, to employee emergency assistance funds, disease management programs, life-long disability services, and anti-poverty programs (MPMRC, 2019a; Taylor, 2019). In addition, Foxwoods Resort Casino promotes arts and craft display and production by indigenous individuals, both internally and cross tribal lines (Foxwoods resort Casino, 2019a; MPMRC, 2019a).

Foxwoods Resort and Casino utilizes a diverse number of sustainable practices applicable within Theme 1. A focus on protecting and reclaiming the land, locally and regionally, allows the influence that Foxwoods Resort and Casino holds on the regional landscape. The protection and restoration of land and water to historical proportions is

directly attributed to the sovereign status of the nation. The ability to offer education assistance and partner with desired groups, both for profit and non-profit, remains an option that few resorts possess without lengthy corporate discussion and intervention. Overall, Foxwoods Resort and Casino exercises their sustainable practices under land and sovereignty.

Theme 2 – Natural Environment. The environment broadly encompasses the natural environment of land, vegetation, animals, natural resources, water, air quality and how humans interact with the natural world (Dockry et al., 2016). Foxwoods Resort Casino aggressively undertakes environmental sustainability programs with effects that impact both the resort and the surrounding communities. Financially benefiting from the Volkswagen Trust Settlement (VTS), VTS funding is earmarked for environmental mitigation (MPTN, 2019b).

Recycling initiatives involving wood pallets, glass, metals, plastics, cardboard, paper, cartons, crates, kegs, and cooking oils are utilized to repurpose, reuse, or remake the material into, but not limited to, roofing, siding, clothing, containers, heating oil, common paper products, pet care supplies, bio-diesel fuels, and pellets for home heating. The *terracycle* program recycles over one million cigarette butts annually (Potter, 2010).

In the water sector, Foxwoods Resort Casino boasts a dynamic series of water reclamation projects including water retention, gray water reuse, rain harvesting, and swamp restoration (Potter, 2010). Sustainable water reclamation projects supply water to the sustainable woodland. The timber management policy at Foxwoods includes paper production (Taylor, 2019).

In the power sector, Foxwoods Resort Casino converts over 8,000 tons of waste to clean energy (Foxwoods Press Business Award, 2016), and they host a co-generating heat and power plant with 82.5% efficiency (Potter, 2010) through the conversion of pressurized natural gas. Non-reuse or recycle items including solid waste are incinerated and converted to electricity. In addition, electric car charging stations and complementary shuttles help further reduce carbon emissions (Potter, 2010).

Architecturally, the use of local natural resources for building construction include SMART buildings that interact with the environment in a symbiotic relationship, building into hills and underground, advances in HVAC processes, and rain harvesting, while observing cultural traditions (MPMRC, 2019a). These sustainable programs allow for eco-tourism and interactive programs with dedicated outdoor event space for both tribal and non-tribal individuals.

Community environmental education and interactive programs expand the use of and explain sustainable programs through the establishment and the promotion of community partnerships (MPTN, 2019a; MPMRC, 2019a).

The environmentally sustainable initiatives at Foxwoods Resort and Casino go beyond the hospitality industries norm. Within the Environment theme, Foxwoods consistently strives to create a circular economy.

Theme 3 – Institutions. "Tribes asserting their sovereignty, building institutions to exercise that sovereignty, and designing those institutions in alignment with Indigenous culture" (Cornell and Kait, 2007, p. 3). Within the sphere of institutions are

governments, schools, and the family system, yet these institutions influence which sustainable programs to pursue.

Extensive community partnerships with the broader local community and other tribal entities brokered by Foxwoods Resort Casino and the tribal government allow for economic integrity in building material, the on-site co-generation power plant, and provide low budget housing for individuals and families in need (Foxwoods Press Business Award, 2016; Potter, 2010). Jointly, Foxwoods Resort Casino and the Mashantucket Pequot tribal government promote a culture of volunteerism, community engagement, along with community education and interactive programs to promote financial management, leadership development, and general academic and cultural education (Foxwoods Resort Casino, 2019c; MPTN, 2019b). Leadership education and advancement programs at Foxwoods Resort Casino show a success with 85% job retention and promotion (Foxwood Press Business Award, 2016).

As a facility, Foxwoods provides a diverse environment for guests and employees alike. Education and partnerships with Foxwoods Resort and Casino support schools, family systems, and community life. Therefore, within the dimension of Institutions, Foxwoods Resort and Casino excels. The co-generation power plant located on resort land inputs electricity into the regional power grid instead of utilizing grid electricity. Additionally, Foxwoods hosts first-rate water reclamation projects and SMART architecture while consistently aligning with their indigenous culture.

Theme 4 – Technology. Simply put, technology is "How humans do things … or how humans get things done" (Dator, Sweeny & Yee, 2015, p. 2). Since the Foxwoods

Resort Casinos start, the Mashantucket Pequot Tribal Nation invested more than $2.7 billion into it (Taylor, 2019). Much of that investments are earmarked for technology advances and sustainable programs that it would peruse (MPTN, 2019b). To date, advanced technology allow for the construction and operation of the co-generating heat and power plant (Potter, 2010), the green roof on the Museum and Research Center, water retention and reclamation sustainable programs, and the sustainable maintenance and harvest of the property's timber (MPMRC, 2019b; Potter, 2010; Taylor, 2019).

Additionally, advancing technology allowed for the implementation of a run-on-demand format for heating and cooling systems, per building, rain harvesting and repurpose, and the adaption of SMART architecture allowing for reduced energy costs, while interacting with the environments, natural beauty (Potter, 2010). The establishment and promotion of community partnerships to enhance SMART development, education, or cultural experiences augment the impact of Foxwoods Resort Casino (Potter, 2010).

In addition to larger, impersonal sustainable programs, technology supports infrared, closed caption, video descriptions, and multisensory displays for educational exhibits and demonstrations (MPMRC, 2019a). This brings the technology sphere to individuals and enhances the enjoyment of the Foxwoods guest. Technologic advances in replica production of artifacts allows for the resort guest to enjoy more hands-on exploration of exhibits.

The technology theme encompasses more than computer programs and screens, but the knowledge held by individuals and groups (Dockry et al., 2016). Foxwoods Resort Casino works with the dimension of technology, mixing them, historical and

current knowledge, into one practice. Foxwoods creates a symbiotic existence of mechanical technology, human knowledge and traditions. This relationship transpires as ingeniously useful for guest and employee enjoyment, environmental, and institutional advancement.

Theme 5 – Economics. Economics compose an intricated theme for a business venture. Within the Foxwoods Resort Casino, economics can be delineated to revenue generating, revenue savings, and charitable contributions.

By engaging in the co-generating heat and power plant Foxwoods Resort Casino turned their $24 million annual utility expense into tremendous revenue stream for the tribe within four years of it coming online (Potter, 2010) as the Pequot currently export electricity from the Foxwoods Resort property. Additionally, the casino itself remains a profit generating venue for the tribe as it remains one of the highest revenue contributors and largest employers within the State of Connecticut (Foxwoods Resort Casino, 2019a) and "one of the largest and most successful resort casinos in North America" (MPTN, 2019c, p. 1). Promotion of traditional arts and crafts by indigenous individuals within the resort's shops, commissioned painting, and indigenous art market supplement the revenue streams.

Revenue savings can be attributed to the choice of local building material, use of adaptable room design, complementary shuttle service between resort facilities, ride share programs for employees and local residents, and primary use of in-state or New England vendors (Foxwoods Resort Casino, 2019c, 2019d; Taylor, 2019).

Corporate and employee charitable donations including tuition reimbursement, support for various health initiatives, disability services, educational programs, domestic and homeless shelters, Special Olympics, supporting educational programs and supplying school supply to the local schools (Foxwoods Resort Casino, 2019a, 2019c; Taylor, 2019).

Foxwoods Resort and Casino remains a driving force in the financial profitability of the local community and the region. Profits from the resort allow for financial assistance for local health and disability services, education, poverty programs, and partnerships of local non-profits organizations. The high-caliber financial performance of the resort allows for the successful application of fifth theme.

Theme 6 - **Human Perception, Activity, and Behavior.** This theme encompasses individual and community perception, activity, tradition, behavior, and values (Dockry et al., 2016). Foxwoods Resort Casino offers patrons farm to table food and ingredients in various restaurants, private rooms and lockers availability at the spas and golf courses, interactive programs and co-created exhibits at the resort museum accessible for guests including those with disabilities (Foxwoods Resort Casino, 2019d, 2019e).

For corporate and tribal employees, Foxwoods Resort Casino provides employee assistance programs that allows for free short-term counseling, disease management, tuition reimbursement, child and elder care, financial and legal services, and identification theft recovery. Extending from this, Foxwood Resort Casino promotes community partnerships and social outreaches with multiple municipalities that include

suicide prevention, education, blood drives, financial education, regional disaster relief, emergency aid, housing assistance, and water treatment facilities (Foxwoods Resort Casino, 2019a, 2019c; Taylor, 2019). These programs create an active community and volunteer culture.

Foxwoods Resort and Casino efficiently bridges a gap between the institution and humans by providing a diverse array of sustainable programs and initiatives for guests, employees and community members. These programs yield changing behaviors, installing knowledge, and allowing for new ways of thinking. The sustainable practices categorized within the sixth theme (Table 1) are compliments to the other five themes as seen strictly through human actions and behaviors. Foxwoods Resort and Casino continues to promote sustainable practices and programs at exceptional levels within the innovative freedom of the human perception theme.

Thematic map – integrating the themes. The Western Mashantucket Pequot Tribal Nation promotes a symbiotic relationship between human life and the wellbeing of the environment through the interconnecting themes. This relationship is not only distinctive to the Mashantucket Pequot Nation but abides with many indigenous people. Within this belief the concept holds that all life in interconnected and that actions, behaviors, and life affect everything(Gibson, 2011; SGF, 2019; Wilkins, 2015).

Figure 3 showcases how one of Foxwoods Resort Casino's sustainable programs interconnect and affect all six dimensions of the SDI model. To accomplish this, the researcher chose a different practice or program focus in different dimensions for each of the resorts and explained how the practice or program functions in each sphere. The co-

generating heat and power plant plays a major role in their sustainable practices and eco-tourism for Foxwoods Resort Casino (Potter, 2010; Taylor, 2019) while simultaneously belonging within the two dimensions of Technology and Land and Sovereignty.

Additionally, Figure 3 displays the effects that the sustainable co-generation power plant has upon the six themes of the SDI model of sustainability. Because Foxwoods resort owns the land that the co-generation power plant resides upon (Taylor, 2019), the ability to build and maintain the power plant rests with sovereignty over the land (Theme 1). Environmentally (Theme 2), the co-generation power plant allows for zero landfill waste (Potter, 2010). As a green facility, the power plant also incinerate waste, recaptures and reuses the water vapor byproduct (Potter, 2010). In turn, the on-site power plant provides electricity for Foxwood Resort Casino (Taylor, 2019).

Therefore, the institution (Theme 3) does not require electricity from the power grid. The technology (Theme 4) needed to plan, construct, and maintain the power plant involved engineers, tribal and Foxwood representatives. Economically (Theme 5), the co-generating heat and power plant provides an additional revenue stream and saves the resort from expensing over $24 million annually in electricity cost (Taylor, 2019). The co-generating heat and power plant enjoys a positive human perception (Theme 6) due to its zero waste and fact that it produces local, sustainable electricity for the surrounding communities within the State of Connecticut.

Figure 3: Application for SDI model, Co-generating Heat and Power Plant.

Seminole Hard Rock

The Seminole Tribe of Florida tribe is known under various names like

Miccosukee, Muscogee, Calusa. The Spanish referred to the Seminole as '*cimarrones*' or

'runaways'. Locally, the Florida Seminole refer to themselves as the 'Unconquered'

Seminole Tribe of Florida. The region currently is located within the States of Florida,

Georgia, and Alabama was their homeland. Headquartered in Hollywood, Florida, the

Seminole hold sovereign control over the Big Cypress, Brighton, Fort Pierce, Hollywood,

Immokalee, and Tampa Reservations. Currently, membership rests around 4,200

members of the Seminole of Florida (Hardrock, 2019) with about 2,000 members living on the reservation (Koenig, 2019b).

The Seminole people pre-date the Spanish in Florida and are descendants of the original Mississippian culture that inhabited the region over 10,000 years ago. The first contact with non-natives was between 1539 and 1543. In 1830, President Jackson signed the Indian Removal Act, yet just as with the Spanish, many Seminoles refused to relocate. Those remaining in Florida moved into the Florida swamps where about 200 Seminoles escaped relocation from what became known as the infamous Trail of Tears (STOF, 2019b). The 'unconquered' Seminole established a refuge for escaped slaves by allowing former slaves to join the tribal community and live in chickees (houses built on stilts) within the Everglades (STOF, 2019b).

The First Seminole reservation formed in 1907 with a 540-acre tract of land (STOF, 2019b). In 1928, the Tamiami Trail complex welcomed tourism to South Florida with tourist camps, posts, roadside vendors, craft sales, and alligator wrestling. In 1953, the United States House of Representatives proposed a resolution that would terminate all tribal acknowledgement by the federal government (HCR 108, 1953). In response, the Seminoles of Florida politically organized, resisted assimilation, and demanded return of their lands. After writing their constitution, the Seminole were officially recognized as a tribe by the United States federal government in 1957. Currently, the Seminole tribe hold over 90,000 acres of land in trust (STOF, 2019b).

The Seminole of Florida applied sustainable practices for centuries while residing in the Everglades. The indigenous knowledge associated with those sustainable practices

remains valuable with the Seminole Everglades Restoration Initiative which receives funding from Hard Rock casinos.

The Seminole opened their first bingo hall in 1971 and the first smoke shop in 1977. As time progressed, Seminole business acumen became known as the Seminoles established a "wide ranging enterprises covering trade, live entertainment, cattle farming, tourism, hospitality, gaming and more" (Koenig, 2019b, p. 4). By 1988, they opened the first official casino, Seminole Classic, on the Seminole reservation (STOF, 2019b). Funding from the Casino allowed the Ah-Tah-Tui-Ki Museum to open in 1997 on the Big Cypress Seminole Indian Reservation. In 2004, the first Seminole Hard Rock Casinos opened in Hollywood and Tampa, Florida. Hard Rock International was purchased in 2007 by the Seminole tribe from their original parent company. Currently, the Hard Rock Casino in both Hollywood and Tampa, Florida are owned and operated by the Seminoles. Today, Hard Rock Hotel and Casino directly and indirectly employees over 40,000 people (Koenig, 2019b).

Because the parent company, Hard Rock International, offers franchising, numerous Hard Rock establishments exist. Consequently, not all Hard Rock establishments are necessarily owned and operated by the Seminole Tribe of Florida. Hard Rock is a global brand which operates in seventy-four countries with 186 cafes, 240 shops, twenty-nine hotels, twelve casinos, and facilities contracted to open in the future. Hard Rock remains a "global brand with local sensitivities" (Abbot, 2018, p. 1).

Hard Rock Hollywood offers 1,271 rooms, water recreation with optional rentals, nineteen dining facilities, twenty bars, numerous boutiques, and city trolley stops.

Currently, Hard Rock Tampa is undergoing a multi-million-dollar expansion, but offers the traditional, hotel rooms, walking tour, shopping experience, on-site restaurants, bars, lounges, meeting rooms, casino, pool, spa, cabanas, and salon. The Hard Rock niche is that they offer cutting-edge, tech-savvy technology specializing in performance music with both indoor and outdoor event space available.

Table 2 presents the sustainable practices extracted from Seminole Hard Rock Hotel and Resort and Seminole Tribe of Florida official websites along with news and press reports. The sustainable practices are delineated into the six themes or dimensions of sustainability as determined by the SDI model. In comparison with a peer's categorizations of sustainable practices from Seminole Hard Rock Hotel and Resorts, the Cohen's Kappa (Braun et al., 2018) for Land and Sovereignty was 0.81; for environment 0.75; Institutions was 1.0; Technology a 0.80; Economics a 0.78; and Human perception, activity, and behavior had a 1.0 Cohen's Kappa (Appendix B).

Table 2

Sustainable practices at Seminole Hard Rock Hotels and Resorts

Theme	Sustainable Practices
Theme 1: Land and Sovereignty	Charitable partnership[2, 9]
	Disaster relief aid, globally[3, 4]
	Ethical sourcing of resort supplies[2, 3]
	Health and sanitation programs, globally[2, 4]
	Seminole Everglades Restoration Initiative[6, 7, 10]
	Waste disposal programs[10]
Theme 2: Environment	Automatic Flush[6, 8]
	Eliminating plastic silverware and straws, paper plates and cups[5, 6]
	LED lighting throughout facilities[1]
	Native plants throughout facilities[3, 5, 7]
	Non-toxic chemicals for cleaning[6]
	Refurbishment and updating building to make green[1]
	Resort gardens[5, 7]
	Reuse gray water[10]
	Waste disposal programs[10]
	Water refill stations strategically placed[5, 10]
Theme 3: Institutions	Environmental education programs[7, 6, 3]
	Health and sanitation programs, globally[2, 4]
	Music education and therapy programs[2]
	Resort gardens[5, 7]
	Waste disposal programs[10]
Theme 4: Technology	Automatic flush[6, 8]
	Environmental education programs[7, 6, 3]
	Historical demonstrations[8]
	LED lighting throughout facilities[1]
	Native plants throughout facilities[3, 5, 7]
	Non-toxic chemicals for cleaning[6]
	Refurbishment and updating building to make green[1]
Theme 5: Economics	Benefit events[1, 4]
	Charitable partnership[2, 9]
	Disaster relief aid, globally[3, 4]
	Ethical sourcing of resort supplies[2, 3]
	Music education and therapy programs[2]
	Poverty relief organizations[2]
	Resort gardens[5, 7]
Theme 6: Human Perception, Activity, and Behavior	Benefit events[1, 4]
	Charitable partnership[2, 9]
	Disaster relief aid, globally[3, 4]
	Eliminating plastic silverware and straws, paper plates and cups[5, 6]
	Ethical sourcing of resort supplies[2, 3]
	Historical demonstrations[8]
	Music education and therapy programs[2]
	Native plants throughout facilities[3, 5, 7]
	Non-toxic chemicals for cleaning[6]
	Poverty relief organizations[2]
	Serving organic brain food to employees[6]
	Various volunteer projects[2, 4]
	Water refill stations strategically placed[5, 10]

| **Sources:** | [1]Hard Rock (2017); [2]Hard Rock (2019a); [3]Hard Rock (2019b); [4]Hard Rock (2019c); [5]Hasek, G. (Jun 2009); [6]Koenig, M. (2018a); [7]Koenig, M. (2018b); [8]Koenig, M. (2019a); [9]STOF (2019b); [10]Wharton-Smith, Inc Construction Group, (Feb 2018). |

Theme 1 – Land and Sovereignty. "The land and the Seminoles are one, and if the land perishes, then so do the Seminoles" (Koenig, 2018a, p. 1). The Seminoles of Florida's drive to self-govern grants them the ability to improve the lives and policies within their land, to increase sustainable practices, and develop long-term, diversified economic projects, in order to reach self-reliance (Cattelino, 2008). As a sovereign nation it remains within the jurisdiction of the Seminole of Florida to reach out and offer disaster relief to other nations. Resort vehicles and tribal planes facilitate the transportation and gifting of bottled water and hygiene supplies (Hard Rock, 2019c). The Seminole spearhead the government-to-government compact, the Seminole Everglades Restoration Initiative, to protect and steward the water systems of the local area (Koenig, 2018a, 2019b; Walker, 2011). Seminole Hard Rock Hotel and Casino charitable partnerships include autism awareness, cancer research, human trafficking prevention, protecting the environment, and music therapy (Hard Rock, 2019a), in addition to providing financial aid for college students with a focus on tribal students from Tampa and Hollywood.

Hard Rock International allows each facility sovereignty in choosing their local charitable programs, with preference to music, environment, and human health and protection. Since the Seminole Tribe of Florida own Hard Rock International and manage both Hollywood and Tampa Hard Rock locations, the charitable contributions align with the charitable contributions of the Seminole Nation. Overall, the practices and programs within Theme 1 also effect other themes. Therefore, Hard Rock Resorts and Casinos preform efficiently within both the land aspect and sovereignty aspect of this theme.

Theme 2 – Natural Environment. "Conserving and protecting the Florida Everglades and its wildlife is a top priority for the Seminole Tribe" (Koenig, 2018a, p. 1). Seminole tribal priority is the Seminole Everglades Restoration Initiative to conserve and protect the Everglades via improving water quality, water storage capacity and enhancing hydroperiods to restore the water system. The goal allow for the "natural splendor of this [the Everglades] natural ecosystem" (Florida Seminole Tourism, 2019, 2).

Thus, "Seminole environmental projects are designed to protect the land and the water systems … It coincides with ensuring a sustainable economic and cultural future for the Tribe" (Koenig, 2018b, p. 3). Several sustainable water projects operate within Hark Rock include water refill stations and fountains placed for performance and customer satisfaction, automatic flush toilets, reuse of gray water, and a sustainable waste disposal program. The sustainable waste disposal program allows for compost for resort gardens or locally native and traditional plants, and a lucrative citrus market for the grown fruit. Hard Rock partners with like-minded, eco-friendly businesses and prefer ethical sourcing of hotel supplies.

Hard Rock kitchens habitually use innovative menus, prefer farm to table where available, and have moved to eliminate plastic silverware and straws, paper plates and paper cups usage (Hasek, 2009). SMART technology allows Hard Rock to refurbish 'green' buildings, whenever possible (Hard Rock, 2017). The shift to LED lighting throughout their facilities and use of non-toxic chemical for cleaning promotes the health and clarity of employees and guest (Koenig, 2018a).

Regarding environmental sustainability, Seminole Hard Rock Resorts and Casino focuses on water systems and updating facilities with SMART technology toward creating green buildings. As the majority of Hard Rock facilities locate within urban environments, the protection and restoration of virgin land is difficult. The sustainable programs and practices that Hard Rock participates in strives to restore, reclaim, protect water quality and water systems. Hard Rock remains involved in substantial and detailed ecologic water renewal initiatives. Overall, the sustainability of Seminole Hard Rock resorts in the Tampa and Hollywood, Florida, in relation to the natural environment are comprehensive and often industry standards (Koenig, 2018a).

Theme 3 – Institutions. Hard Rock International's dedication extends beyond Music education and therapy to environmental and general education to health and wellness of employees and guests (Abbot, 2018; Hard Rock, 2019b). Seminole Hard Rock remains dedicated to developing educational venues with educational field trips that highlight the environment or the Seminole history and culture. Tribally the focus resides with tours and experiences in the Everglades and the creation of the Seminole Department of Anthropology and Genealogy to enhance cultural preservation and assist with the reconstruction of ancestral clans (STOF, 2019c). In addition, the Seminole Broadcast Department promotes cultural awareness and preservation (STOF, 2019c). In addition, Hard Rock also holds a music appreciation focus within its venues through presentations, events, infrastructure, and charitable contributions (Hard Rock, 2019b, 2019c). Furthermore, Hard Rock offers scholarship grants for Seminole members attending college.

Partnering in global health and sanitation initiatives, Hard Rock collects and donates recycled hotel soap and amenities (Little, 2019). Hard Rock promotes a culture of innovation with its progressive sustainable programs such as tribal issued water bottles with strategic placement of water bottle refill stations through the complex or the use of refurbished building (Little, 2019; Hard Rock, 2017; Hasek, 2009).

The Seminole Tribe of Florida in conjunction with Hard Rock Resorts actively support a culture of intervention via charitable contributions to organizations like local girl's and boy's clubs, after school programs and their extensive hurricane relief programs (Hard Rock, 2019c).

Hard Rock facilities generally host an ambience and focus on music, where the Resorts and Casinos in Hollywood and Tampa combine with the Seminole Tribe of Florida go a step farther in rebuilding music education facilities as part of their disaster relief program. As the only two Hard Rock locations owned and managed by the Seminole tribe, profits from Hollywood and Tampa resorts fund organizations that concentrate on revitalizing tribal historical culture, traditions, and knowledge. With strong partnerships, locally and globally, Hard Rock provides stability and a history of applying sustainable practices along with franchising with Hard Rock International.

Theme 4 – Technology. The theme of technology impacts multiple areas within Hard Rock Resorts which foster a culture of innovation with cutting edge audio/visual communications and broadcasting availabilities. Hard Rock Resorts implement detailed sustainability planning when refurbishing and upgrading buildings (Hard Rock, 2017). They implement LED and natural lighting while taking advantage of outdoor spacing.

Water usage throughout the complex maximizes efficiency, reuse, and sustainability of the water ecosystem (Walker, 2011).

Multiple avenues and usages of mechanical technology exist within Hard Rock International for building, communication, events, transportation, and implementation of various sustainable practices. Prior to 2007, when the Seminole Tribe of Florida purchased Hard Rock International, the technology programs focused on music. After 2007, music remains a primary focus, but partnerships and charitable contributions with programs and organizations involving regional history and culture substantially increased. Overall, technology usage at Hard Rock Hollywood and Tampa remains on par with other resorts. Yet, communication technology commonly exceeds other resorts in the venue of musical options and music related special events.

Theme 5 - Economics. "Today, gaming is, by far, the number one economic enterprise in all of Indian Country" (STOF, 2019b, p. 1). As the Seminole Tribe of Florida's prosperity grew, hospitality, gaming, and tourism supplied significant financial support for infrastructure improvements, schools, water way projects, and the preservation of the Seminole cultural heritage (Koenig, 2018b). Funding from the casino and funds generated from Hard Rock International afford tribal members modern housing (STOF, 2019b), health care (STOF, 2019b), and education from kindergarten through college (STOF, 2019b).

Ethical sourcing with local companies allows for community engagement. Extensive recycling of plastics, paper, hygiene products, waste, water programs yield an almost zero land fill use (Hasek, 2009). Charitable contributions remain a focus of Hard

Rocks missions (Hard Rock, 2019a). Community driven charitable contributions by the

individual Hard Rock establishments include hurricane, disaster, and poverty relief

organizations or events, cancer research, boy's and girl's clubs, local hospitals, and music

initiatives.

Financially, Seminole Hard Rock and Hard Rock International provide many

positives that reach farther than the other three resorts in the current study (Cattelino,

2008). Beyond the finances, ethical sourcing remains a cornerstone for employment.

Seminole Hard Rock's low-zero landfill waste policy supports a circular economy. Abbot

(2018) comments that Hard Rock exists as global company in reach and influence yet

remains regionally and community focused. Hard Rock's strives to supplement and

protect the infrastructure of each community with a Hard Rock facility. The commitment

to Corporate Social Responsibility places Hard Rock above many other international

hospitality companies in their community outreach and commitment.

Theme 6 - Human Perception, Activity, and Behavior. "We demonstrate our

history's sustainability and share our traditions that have been handed down from

hundreds of generations of Seminole" (Florida Seminole Tourism, 2019, p. 10). In

affiliation with the Hard Rock Resorts, Seminole of Florida offer sustainable history

demonstrations, battle reenactments, and swamp buggy ecotours.

Community driven charitable contribution and volunteer projects are encouraged

including corporate donation of hurricane relief supplies via resort vehicles and tribal

planes to transport bottled water and hygiene products to effected areas (Hard Rock,

2019c. In addition, the Seminole Tribe of Florida always take enough fuel for round trip

to not force fuel dependency on the affected area. Hard Rock Resorts also financially support multiple and various musical outreaches and local hospitals.

The belief that individuals matter manifests in a variety of ways: serving 'brain food' like organic nuts, vegetables, fruits, and dark chocolates, partnering with boys and girls club to plant native and traditional plants in the resort gardens, utilizing organic cleaning supplies, and ethical sourcing of supplies and equipment for the resorts (Koenig, 2018a, 2019a, 2019c).

Within Hard Rock Resort and Casinos of Tampa and Hollywood, Outreach centers primarily on mental health, physical health, and general wellbeing remains primary. Information on environmental issues also presides at the top of Hard Rock priorities. Partnering and assisting with music therapy, medical aid, and disaster relief within their communities, Hard Rock promotes an increase in positive human activity and a decrease in human mental stress. This approach to theme six (human perception, activity, and behavior) is a different approach form the other resorts in this study. It is a well thought out, documented, and an effective approach that successfully works for Hard Rock on a global scale.

Thematic map – integrating the themes. The Seminole Tribe of Florida focuses on protecting and preserving the life of all things, the interactions between life and death, not as a linear system but a circular holistic system (STOF, 2019b). One practices or program that incorporates the holistic approach of protecting and preserving life is in the Seminole Hard Rock disaster relief fund.
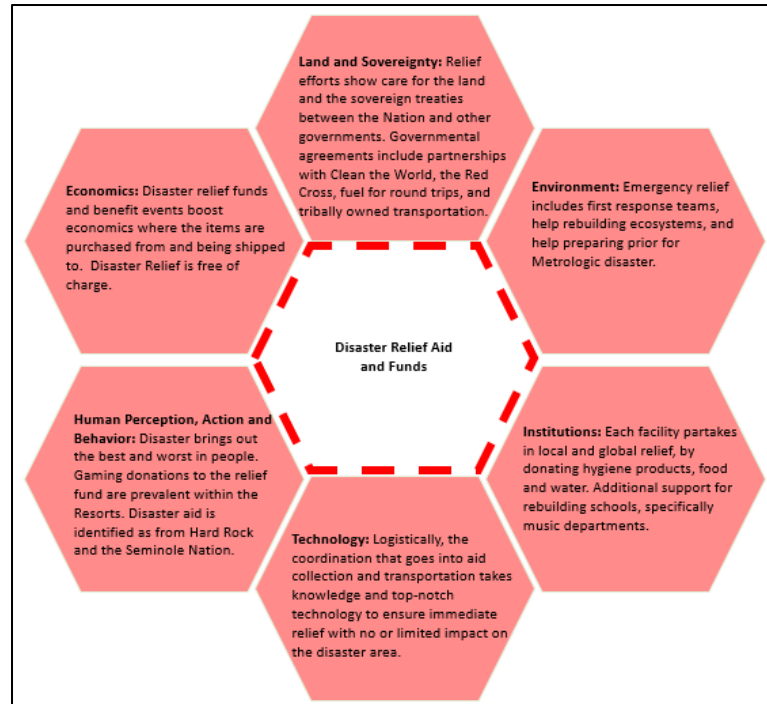
Figure 4: Application of SDI model, Disaster Relief.

To showcase how one practice or program can influence each of the six dimensions of the SDI model of sustainability, the researcher chose the Seminole disaster relief aid and funds. This program funded by Seminole Hard Rock plays a major role in their sustainable practices and the motto "Love all-Serve All, Take Time To Be Kind, Save The Planet, and All Is One" (Hard Rock, 2019, p. 1) Chiefly belonging within the two dimensions of Human Perception, Actions, and Behavior and Land and Sovereignty, the Seminole Hard Rock disaster relief programs are examined in Figure 4.

The effects of the Seminole Hard Rock disaster relief fund persevere are far reaching (Hard Rock, 2019b, 2019c). Land and sovereignty (Theme 1) accounts for the Seminole Hard Rocks contribution to disaster relief via the Seminole tribe's ability to exert their sovereign status and directly contact other governments to offer aid. This allows for aid to be delivered faster and directly to the needed sites. Environmental

(Theme 2) concerns can be directly addressed especially those which impact indigenous people. The Seminole disaster relief program, underwritten by Seminole Hard Rock, allows for assistance with clean up and water and hygiene product distribution (Hard Rock, 2019b; Little, 2019). In the aftermath of a disaster, Seminole Hard Rock as an institution (Theme 3) that supports music education, prioritizes assistance to rebuild academic music departments in schools and helps supply instruments (Hard Rock, 2018). Technology (Theme 4) and advance coordination provides aid for distressed areas without adversely impacting the area by utilizing already stresses fuel, water, or housing options (Hard Rock, 2018, 2019b). Disaster relief remains a charitable donation from Hard Rock and the Seminole Nation. As a gift from the resort and tribe, the disaster relief program stands as one of the successful, well received economic (Theme 5) outreach from Hard Rock and the Seminole Nation to the regional community and other indigenous tribes. Disaster aid labeled as from Hard Rock and the Seminole Nation allows for positive recognition and heightened perception (Theme 6) of Hard Rock and the Seminole Nation.

Pechanga

The Pechanga Band of the Luiseño Mission Indians headquarters is in Temecula, California, about one hour from San Diego in the Temecula Valley. The Pechanga Band of the Luiseño Mission Indians endured as a sovereign nation for centuries (Larned, 2018). Under the Spanish rule of California, the Pechanga were recognized as a nation. Missions built on Pechanga land became home. When California became a state in 1850, the Pechanga people, along with many other tribes within California were considered

wards of the state due to the Act for the Governance and Protection of Indians from the first California legislature (PBLI, 2019a). In 1850, the Temecula tribes were forcibly moved three miles south of the original reservation (PBLI, 2019a).

By an Act of Congress, the Pechanga Band of the Luiseño Mission Indians became federally recognized as a sovereign Tribal Nation in 1882 (PBLI, 2019b). Over the next 100 years, Pechanga members fought in both World Wars, for American citizenship, and religious freedom to all Native American tribes. Since 1988, the Pechanga tribe embarked on a path to steward and protect the environment and the people within the Temecula Valley. Pechanga tribal membership as of 2006 numbered 1,370 members, yet in 2011 only 467 members lived on the Pechanga reservation.

The Pechanga Band of the Luiseño Indians officially ventured to hospitality establishments with the Pechanga Casino and Bingo Hall in the 1988, opening Pechanga Resort Casino in 2002. Pechanga remains solely owned and operated by the Tribal Nation. There is only one Pechanga Resort Casino. "Pechanga is the largest resort/casino on the west coast and one of the largest in the country" (PR&C, 2019, p. 1). Pechanga Resort and Casino finishes the current expansion project in October of 2019, bringing their resort to almost double the prior size. The casino will feature 200,000 square feet of gaming space consisting of slots, table games, poker tables, off track betting and a 700-seat section for bingo. The spa and salon will increase to 25,000 square feet, both indoor facility's and some outside space. The fitness center houses two Yoga studios with indoor and outdoor locations. The water park includes over 4 ½ acres of pools, water slides, waterfalls, and swim up bars. Designated space for sporting and music events will be 40,000 square feet. An additional 68,000 square feet remains reserved for banquets,

conventions, meetings, and various events. Two preforming art theaters, seating

approximately 1,470, tops off the entertainment spaces at Pechanga. The 18-hole,

Journey at Pechanga Golf Course, one of the southern California premier public courses

feature historical artifacts between holes, while also containing a restaurant and golf pro

shop. For individuals looking for food or shopping, Pechanga offers more than 20

restaurants and over 20 stores. The hotel's 1,090 guest rooms expand the hotel/business

center at Pechanga. For guests who desire additional knowledge of the history and

culture of the southern California Indians artifacts, artwork and information are on

display throughout the facility as well as in a designated center. Finally, for the guests

who prefer an RV or camping, Pechanga has a 210 site RV park next to the Pechanga

resort gas station. Pechanga Resort and Casino utilizes an extensive array of sustainable

practices within the resort.

Table 3 presents the sustainable practices from publicly accessible documents on

Pechanga Resort and Casino, within the six dimensions of the SDI model's

predetermined themes for analyzation. When comparing a peer reviewers categorization

of sustainable practices compiled from publicly accessible documents it was found that

the Cohen's Kappa (Braun et al., 2018) for Land and Sovereignty is 1.0; for environment

0.81; Institutions has a 0.78; Technology a 0.79; Economics a 0.81; and Human

perception, activity, and behavior has a 0.66 (Appendix B).

Table 3

Sustainable Practices at Pechanga Resort and Casino

Theme	Sustainable Practice
Theme 1: **Land and** **Sovereignty**	Charitable contributions[5, 6, 11] Child advocacy assistance[7, 11] Co-generation electrical facilities[13] Donation of linens, hygiene products, and toilet paper to local missions[2] Education financial assistance[7, 11] Emergency response services[8] Family and elder care[7, 11] Hydropower system for gray water[13] Native plants for food, spa, and landscaping[1] Partner with local agencies[2, 4, 6] Rain harvesting for irrigation[1] Solar panels[13] Unused or not needed medication return program[2] Water drought and conservation plans[1, 10]
Theme 2: **Environment**	Car charging stations[12] Co-generation electrical facilities[13] Eco-friendly golfing greens and landscaping practices[1] Encourages volunteerism[5, 11] Hydropower system for gray water[13] Indoor and outdoor event space[5] Low flow water fixtures[2, 3] Native plants for food, spa, and landscaping[1] Recycle programs for meat, bones, fat, oil, glass, aluminum, trash, cardboard[2, 3] Solar panels[13]
Theme 3: **Institutions**	Education financial assistance[7, 11] Emergency response services[8] Encourages volunteerism[5, 11] Floor to ceiling windows[3] Indigenous film festival[4] Indoor and outdoor event space[5]
Theme 4: **Technology**	Car charging stations[12] Co-generation electrical facilities[13] Education financial assistance[7, 11] Hydropower system for gray water[13] Low flow water fixtures[2, 3] Recycle programs for meat, bones, fat, oil, glass, aluminum, trash, cardboard[2, 3] Solar panels[13] Unused or not needed medication return program[2] Water drought and conservation plans[1, 10]
Theme 5: **Economics**	Benefit events[2, 3, 4, 5] Charitable contributions[5, 6, 11] Donation of linens, hygiene products, and toilet paper to local missions[2] Eco-friendly golfing greens and landscaping practices[1] Education financial assistance[7, 11] Indoor and outdoor event space[5] Partner with local agencies[2, 4, 6] Rain harvesting for irrigation[1] Recycle programs for meat, bones, fat, oil, glass, aluminum, trash, cardboard[2, 3] Water drought and conservation plans[1, 10]
Theme 6: **Human** **Perception,** **Activity, and** **Behavior**	Benefit events[2, 3, 4, 5] Car charging stations[13] Child advocacy assistance[7, 11] Donation of linens, hygiene products, and toilet paper to local missions[2] Earth day lights out[3] Family and elder care[7, 11] Indigenous film festival[4] Indoor and outdoor event space[5] Native plants for food, spa, and landscaping[1] Partner with local agencies[2, 4, 6]

Sources: [1]Environment (April 2016); [2]Green, C. (2015); [3]Green, C. (2018); [4]Newton, J. (2017).
[5]Newton, J. (2019); [6]PBLI (2019a); [7]PBLI (2019b); [8]PBLI (2019c); [9]PBLI (2019d); [10]PBLI; (2019e);
[11]Pechanga Resort Casino (2019b); [12]Pechanga Resort Casino (2019a); [13]Nu'uhlwa, B. (2019)

Theme 1 – Land and Sovereignty. "We are an independent and freedom-loving people, a spiritual people" (PBLI, 2019b, p. 1) The Pechanga tribal government runs on the philosophical foundation of strength, wisdom, longevity, determination, and preservation. It believes that practicing traditional ways of life connects the past to the present, thus, forming one world and one tribal entity (PBLI, 2019a). The goal of the tribe is to reach long term economic development for self-sufficiency (PBLI, 2019a). Funding from the Pechanga Resort and Casino contributes to the ability of the tribe to reach financial independence. Pechanga funding extends to modernization and buildup within emergency response teams like the police, fire department, and emergency medical response units (PBLI, 2019c). The Pechanga governmentally partner with wineries, horse stables, and the Old Temecula Town; many of the partnerships form a symbiotic relationship with the resort and casino. As a government entity, Pechanga encourages volunteerism, hosts benefit events, and grants charitable contributions from the resort to: needy families and elder care, veteran's groups, cancer research, children advocacy and development organization, education, and environmental causes (Pechanga Resort Casino, 2019b).

"The Pechanga Resort and Casino has been the main source of tribal government funding for long-needed and previously unaffordable infrastructure on the reservation" (Pechanga Band of Luiseño Indians, 2019, p. 3). The tribally owned Pechanga Western Electric utility utilizes a combination of power generating sources to maintain the power

grid for the resort, tribal offices, and neighboring residential area (Nu'uhiwa, 2019).

Electricity produced from solar panel on the roof of the Pechanga Resort and Casino and

a co-generation natural gas facility maintains the power grid (Nu'uhiwa, 2019).

Land use patterns established by the tribe include use of native plants for food,

spa, and landscaping. Rain harvesting and irrigation at the resort coupled with an

extensive recycling/reuse program minimizes waste (Environment, 2016). Used blankets,

linens, ironing boards, and partially used hygiene products and toiletries become

donations to the local mission. Pechanga also engages in a unique unused or not needed

medication return program (Green, 2015; PBLI, 2019a).

Pechanga Resort Casino demonstrates sovereignty in a variety of ways: utilizing

multiple power generating modes to remain off the power grid, funding the creation and

growth of emergency and safety departments, donating lightly used items to local

missions instead of filling landfills (Green, 2015; PBLI, 2019c; Pechanga Resort Casino,

2019b). These programs also utilize the land in various ways from protection and

preservation to reintroducing native plants. Pechanga's activities and programs within

Theme 1 are on par with Foxwoods, Hard Rock and Spirit Ridge, as well as exceed

sustainable practices application found in other resorts.

Theme 2 – Natural Environment. Pechanga Resort and Casino embraces

environmentally sustainable practices into their daily operation of the resort.

Agriculturally, the resort uses native plants in their food, spa, and landscaping options,

rain harvesting yields water for irrigation, and eco-friendly golfing greens and

landscaping practices (Environment, 2016; Green, 2018). Pechanga utilizes the highly

efficient co-generation electrical facility, solar energy panels on the resort roof, and

hydropower generated within the gray water recycling system to minimize their use of grid electricity (Department of Interior, 2017; Spilde, 2004). In fact, Pechanga contributes to the electrical power grid in southern California. Pechanga also hosts car charging stations.

SMART architecture dominates the complexes life cycle development and includes low water flow fixtures, indoor and outdoor event spacing, floor to ceiling windows, and lights-out days utilizing only natural, ambient lighting. Recycling programs for meat, bones, fat, cooking oil, glass, aluminum, medicine, general trash, and cardboard add up to tens of thousands of tons a year of material being recycled or repurposed (Green, 2015). The recycling and reuse sustainable programs also include the repurpose of gray water for agriculture, landscaping, and power generation (Green, 2015, 2018; Environment, 2016; Department of Interior, 2017).

Surface water sustainable practices at Pechanga Resort and Casino primarily deal with rain harvesting and gray water repurposing (Department of Interior, 2017; Environment, 2016). In 2017, Pechanga Band of the Luiseño Indians reached an agreement with the United States government concerning a 750 square mile aquifer that was on tribal land (Department of Interior, 2017). As of 2019, the Pechanga Tribe contracts for water resources evaluation, wastewater infrastructure and collection facilities, flood plan analysis, drought contingency plan, and conservation plan and sustainable options (NRCE, 2019).

The natural environment at Pechanga benefits from a variety of sustainable practices and developments. A focus on recycling and a zero-landfill program permeates sustainable objectives (Nu'uhiwa, 2019). Yet Pechanga's programs share striking

similarities with Foxwoods and Spirit Ridge. SMART architecture throughout the resort allows Pechanga to have aggressive recycling facilities. Additionally, sustainable buildings and sustainable practice operations tend to blend into the surroundings.

Theme 3 – Institutions. Within the sphere of institutions are governments, schools, and the family system, yet these institutions hold influence on which sustainable program to pursue (PBLI, 2019d, 2019e; Pechanga Resort Casino, 2019b). For the Pechanga the importance of sustaining tribal identity and cultures partially rests in the education achieved by tribal members. Therefore, the Pechanga tribal government with funding from Pechanga Resort and Casino offer scholarships for middle and high school private education, vocational/technical education and apprenticeships (PBLI, 2019b). They also support an indigenous film festival (Newton, 2017). Funding from the Pachanga Resort Casino underwrote:

> upgrading substandard roads, housing, and our domestic water system,
> installing lines to connect with the regional wastewater treatment system
> to which we pay our way. The tribe also provides for public safety at our
> businesses on the reservation. We are improving emergency services,
> including the construction of our own fire station, procuring modern
> firefighting vehicles and equipment, establishing fully trained and certified
> fire personnel, as well as licensed emergency medical technicians who
> serve the Resort and Casino. We have developed an extensive Community
> Park, a Youth Center, a Senior Center and a new 70,000 square-foot Tribal
> Government Center (Pechanga Band of Luiseño Indians, 2019f, p. 3).

Promoting a volunteer and charitable culture, Pechanga Resort and Casino donates used blankets, linens, partially used hygiene products and toilet paper rolls, and ironing boards to the local organizations for distribution to community members in need (Green, 2015).

Building wise, Pechanga focuses on space and off-the-power-grid abilities (Nu'uhiwa, 2019). Human service institutions focus on training and education remains exceptional. Institutions are closely related to economics, in that financial gain allows Pechanga Resort and Casino to fund the Pechanga tribal governmental programs and the infrastructure of the tribal community.

Theme 4 – Technology. Much of the technology advances and sustainable programs that Pechanga Resort and Casino peruses include top technologies that supplement existing sustainable programs, eco-friendly golfing greens and landscaping keeping, electric vehicles, low use water flow fixtures, versatile meeting space, and alternative methods of electricity production and stewardship (Environment, 2016; Green, 2015, 2018; Pechanga Resort Casino, 2019a).

Within the realm of recycling and reuse, the resort centers on rain harvesting and reuse. An extensive recycle contributes to the collection and repurpose of food, bones, fat, cooking oils, glass, aluminum, trash, and cardboard (Green, 2015). Solid waste (trash) is sorted for recycling. Reuse programs include donations of linens, toilet paper, and food to the local pantry and missions (Green, 2015).

Mechanical technology centers around advancing technology for better water management and energy production. Keeping abreast on recycling and reuse methods rounds out the mechanical technology programs needed to sustainably run Pechanga

Resort Casino, which remains above par compared to many resorts. Technologic advances assist with education initiatives and assistance with a focus of teaching tribal culture and sustainable practices in order to create a sustainable life.

Theme 5 – Economics. "The Pechanga Development Corporation views gaming as a means to create jobs and to achieve long-term economic diversification and independence for the tribe" (Pechanga Band of Luiseño Indians, 2019, p. 1). Economically diverse agricultural projects to augment the resort with irrigation projects, winery production, and numerous regional partners. Additional revenue streams add profitability with selling and savings from the utility requirement by Pechanga's alternate power creation methods of solar, co-generation natural gas, and hydropower facilities (Nu'uhiwa, 2019).

"The Pechanga Resort and Casino has been the main source of tribal government funding for a long needed and previously unaffordable infrastructure on the reservation" (Pechanga Band of Luiseño Indians, 2019b, p. 3) including roads, schools, and modernizing the electrical and water systems. Pechanga funding extends to the modernization of emergency medical response units, the police, the fire department. These modernizations allow for long-term cost savings with increased efficiencies (PBLI, 2019c).

An extensive recycle contributes to the collection and repurpose of food, bones, fat, cooking oil, glass, metals and cardboard. Solid waste (trash) is sorted for recycling. Reuse programs include donations of linens, toilet paper, and food to the local pantry and missions (Green, 2015).

Funds from the Pechanga Resort and Casino help move the Pechanga reservation and surrounding community from poverty to prosperity and continues to aid the region. A focus on infrastructure, emergency departments, and alternative power allow Pechanga Resort and Casino to lead the Pechanga Nation to become economically independent.

Theme 6 - Human Perception, Activity, and Behavior. "A people of tradition, we do not let the sun rise or set without remembering who we are – the Pechanga people" (PBLI, 2019b, p. 1). Communication remains a vital part in retaining cultural significance, Pechanga host an Indigenous Film Festival to promote the art and indigenous heritage (Newton, 2017). Education holds a developmental position in human perception and activity. Thus, Pechanga offers academic scholarships for at a variety of educational levels starting with middle school through college and apprenticeships (PBLI, 2019b). The planting and maintenance of native plants for use and the food and beverage department, spa, and for landscaping are taught to the local middle school children. Thus, sustainable agricultural practices are taught or bequeathed to subsequent generations.

Blood drives, medication programs, food pantry and local mission donations of linens, hygiene products and partially used toilet paper rolls help endure Pechanga to the local community (Green, 2015, 2018). In addition, veterans give a freewill donation to joining the various local Pechanga health club classes. With a volunteer culture and charitable mindset, numerous outreach programs receive wide reception.

The sixth theme closely ties with each of the other themes. Pechanga Resort promotes not just Pechanga history, culture, and language, but indigenous cultures and occupations. This keeps the region diverse. Overall, Pechanga interacts with the

community on the similar level that Foxwoods, Spirit Ridge and Seminole Hard Rock engage with their respective communities.

Thematic map – integrating the themes. Pechanga tradition dictates that the past and present intertwine; together one life and one world formed. Within this world all things interconnect. The longevity, strength, and preservation of this belief permeates through Pechanga Resort and Casino. As Pechanga Resort resides in arid southern California, water remains a resource to be preserved.

To showcase how one practice or program can be in each of the six dimension of the SDI model, the researcher chose Pechanga Resort and Casino's rain harvesting and water recycling sustainable programs (Figure 5). Rain harvesting and water recycling play a major role in Pechanga's sustainable practices and eco-tourism (Environment, 2016). While simultaneously belonging within the two dimensions of Environment and Land and Sovereignty, rain harvesting and water recycling effect all six dimensions or themes of the sustainable SDI model.

A unique method of rain harvesting and water recycling persists at Pechanga. Due to extensive land holding and sovereignty (Theme 1), Pechanga captures rainwater and runoff through an elaborate interconnecting network of ponds and lakes through the property, but especially on the golf course (Environment, 2016). Environmentally (Theme 2), this sustainable practice saves the scarce ground water for other uses. Harvested rainwater and gray water find reuse in irrigation, landscaping, and appropriate resort needs (Department of Interior, 2017; Environment, 2016; Nu'uhiwa, 2019). A hydroelectric power plant also utilizes some of the harvested water in its processes (Nu'uhiwa, 2019). The electricity generated form the hydroelectric power plant provides

the resort complex (Theme 3) with electric power. By analyzing meteorological information and upcoming forecasts along with state-of-the-art advanced technology, (Theme 4) water retention and reclamation accounts for the timed movement of water from catch basins to water storage facilities (Environment, 2016). The economic (Theme 5) impact of Pechanga rain harvesting and extensive water recycling program directly impacts the bottom line for water cost (Environment, 2016). With water being naturally sourced, Pechanga saves millions of dollars verses the cost of purchasing water (Department of Interior, 2017; Environment, 2016). The home location for the Pechanga water harvesting and recycling program resides within a water park, golf course, natural areas, and surrounding hiking trails (Pechanga Resort Casino, 2019a). This unique, multifunctional setting allows for constructive guest interaction and outdoor enjoyment. Consequently, the rain harvesting and water recycling sustainable program at Pechanga promotes a positive human perception (Theme 6) often without the consumer even be knowledgeable of the multiple use for their recreation area (Environment, 2016).
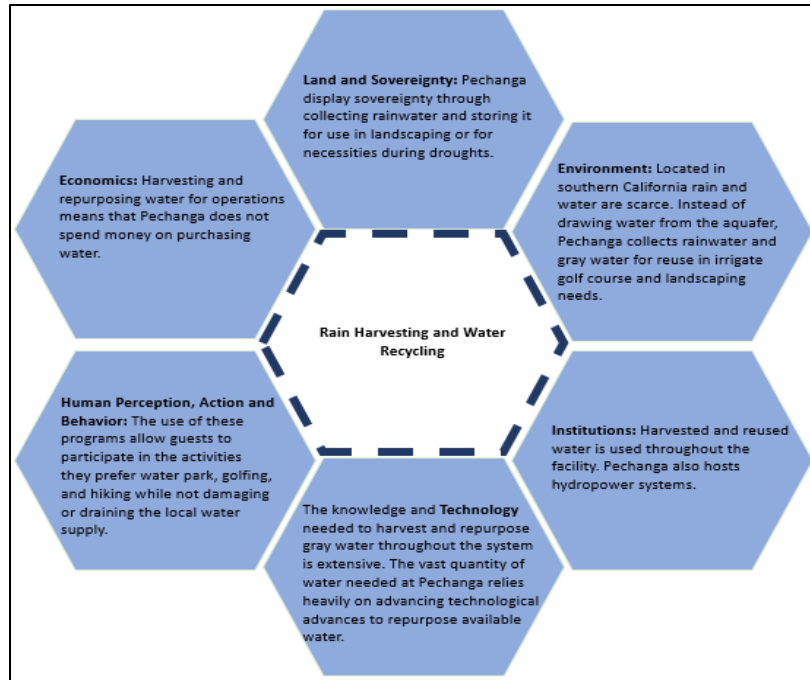
Figure 5: Application of SDI model, Rain Harvesting.

Spirit Ridge (NK'Mip)

Osoyoos Indian Band of the Okanagan Tribe. Osoyoos Indian Band is a band of Indians within the larger nation belonging to the Okanagan people. The Osoyoos Indian Band resided within British Columbia and northern Washington State for thousands of years. Locally, referred to as Nk'Mip, the people of the bottomland. The name endures first for the fact that the Osoyoos reservation lies in the bottomland wedged between two mountain ranges, one range to the east and the other range to the west. Second, Osoyoos endures as the southernmost city in British Columbia before crossing the border into the State of Washington.

Cultural tradition holds that the Osoyoos Band engaged in trade. Archeological evidence lends credence to this claim with goods traveling thousands of miles from the

Osoyoos homeland (NDCC, 2019a). That tradition lives on via the vast number of Tribal Band held enterprises. Non-native fur traders arrived in the Okanagan Valley in 1811 (Town of Osoyoos, 2013b). Ironically, the location is a unique arid region that look like a desert.

Early settlers noted the ability to grow fruit in the area due to the location and height of the mountain ranges and the ranges effect on local weather. By 1907, the first commercial orchards for apples, apricots, cherries, peaches, and plums opened. Fruit orchards transformed the dessert-like valley into an agricultural belt. Vineyards were later introduced and currently dominate agricultural production throughout the Okanagan Valley. Currently headquartered in the town of Osoyoos, British Columbia, Canada, Osoyoos Band membership accounts for 540 people.

A plethora of sustainable practices designed to "meet the needs of the current and future residents of Osoyoos, in a socially, economically and environmentally sustainable manner" (Town of Osoyoos, 2013a, p. 14) persist. Opening in 2006, Sprit Ridge Resort, commonly termed NK'Mip, is owned by the Osoyoos Indian Band but branded under Hyatt Hotels Corporation as part of Hyatt's Unbound Collection. Spirit Ridge Resort consist of a Hyatt Unbound Collection hotel with 226 rooms, multiple pools, Sonora Dunes golf course, a cardio studio, fire cauldron, observation deck, tesla charging stations, NK'Mip Cellars (vineyard), Solterra Desert Spa, various meeting spaces, NK'Mip Desert Cultural Centre, multiple restaurants and cantina, beach access to Osoyoos Lake, and abundant trails.

Table 4 lists sustainable practices which found in publicly accessible online documents pertaining to Spirit Ridge (NK'Mip). The researcher uses the six dimensions of the SDI model's predetermined themes in order to analyze list further. Table 4 contains the list of sustainable practices that the researcher and peer reviewer categorized within the SDI model for Spirit Ridge. The Cohen's Kappa (Braun et al., 2018) coefficient's are as follows: land and sovereignty is 0.68; for environment 0.94; institutions has a 1.0; technology a 0.74; economics a 0.88; and human perception, activity, and behavior has a 0.67 (Appendix B).

Table 4

Sustainable practices at Sprit Ridge (NK'Mip) Resort

Theme	Sustainable Practice
Theme 1: Land and Sovereignty	Buildings exceed earthquake codes, rammed earth and rebar foundations, reclaimed materials, expansion possible without much change[9]
	Education programs finance, family needs, health and wellness, career developments and environmental conservations[3, 10]
	Environmental database for current and future needs[4]
	Ethical supply chain[4, 5]
	Financial assistance for education, housing, and family[3]
	Hand pick grapes in vineyard[6]
	Native plants and animal restoration programs - Rattlesnake research program[7]
	Preplan future expansion for sustainable growth and land use
	Radiant heating and cooling pipes[9]
	Water reclamation projects – surface and subsurface[11, 12]
Theme 2: Environment	Bio-degradable to go containers[5]
	Bulk shower dispensers[5]
	Eliminates plastic silverware, straws and usage[5]
	Environmental database for current and future needs[4]
	Farm to table[5, 6]
	Gray water in irrigation[6]
	Green roofs[8]
	Local artisan merchandise[6]
	Local damaged wood in building accents[8, 9]
	Low flow water fixtures[4]
	Maximize ambient lighting[4]
	Minimum herbicides and pesticides[6]
	Native landscape and trails[7, 8, 9]
	Radiant heating and cooling pipes[9]
	Water bottle refill stations[5]
	Water reclamation projects – surface and subsurface[11, 12]

Table 4 continued

Theme	Practices
Theme 3: Institutions	Buildings exceed earthquake codes, rammed earth and rebar foundations, reclaimed materials, expansion possible without much change[9]
	Financial assistance for education, housing, and family[3]
	Green roofs[8]
	Local damaged wood in building accents[8, 9]
	Maximize ambient lighting[4]
	Multi-sensory exhibits and theaters[8]
	Preplan future expansion for sustainable growth and land use[7]
	Radiant heating and cooling pipes[9]
	Rebuild or renovate SMART[4]
Theme 4: Technology	Buildings exceed earthquake codes, rammed earth and rebar foundations, reclaimed materials, expansion possible without much change[9]
	Education programs finance, family needs, health and wellness, career developments and environmental conservations[3, 10]
	Green roofs[8]
	Local artisan merchandise[6]
	Multi-sensory exhibits and theaters
	Native plants and animal restoration programs - Rattlesnake research program[7]
	Radiant heating and cooling pipes[9]
	Rebuild or renovate SMART[4]
	Water reclamation projects – surface and subsurface[11, 12]
Theme 5: Economics	Charity donations[2]
	Disaster relief funds[1, 2]
	Education programs finance, family needs, health and wellness, career developments and environmental conservations[3, 10]
	Ethical supply chain[4, 5]
	Farm to table[5, 6]
	Financial assistance for education, housing, and family[3]
	Hand pick grapes in vineyard[6]
	Local artisan merchandise[6]
Theme 6: Human Perception, Activity, and Behavior	Charity donations[2]
	Disaster relief funds[1, 2]
	Eliminates plastic silverware, straws and usage[5]
	Farm to table[5, 6]
	Hand pick grapes in vineyard[6]
	Local artisan merchandise[6]
	Local damaged wood in building accents[8, 9]
	Native Landscape and trails[7, 8, 9]
	Water bottle refill stations[5]

Sources: [1]Hyatt (2019a); [2]Hyatt (2019b); [3]Hyatt (2019c); [4]Hyatt (2019d); [5]Hyatt (2019e); [6]Nk'Mip Cellars (2019); [7]NDCC (2019a); [8]NDCC (2019c); [9]NDCC (2019b); [10]Osoyoos Indian Band, (2018a); [11]Arnstein, 2019; [12]Wood, 2019

Theme 1 – Land and Sovereignty. "The land teaches us the power of patience and the pleasure of sharing" (Nk'Mip Cellars, 2019, p. 1). The Canadian government's principle of Economic Realizations allows for indigenous governments to exert the right and the tools to develop their land to achieve sustainable economies. "Aboriginal title

includes an inescapable economic component" (FNLC, 2019, 5; CFFNG, 2013, p. 23).

The Osoyoos tribe made a concerted effort to move from dependency on the federal

system to self-sufficiency. Land and sovereignty represent the driving force toward

economic prosperity for the Osoyoos band (CFFNG, 2013). Sovereignty allows the tribe

to prioritize programs concerning youth, elders, education, heath, housing, infrastructure,

and human services (Centre for Sustainability, 2011).

To achieve sustainable development of their lands, Osoyoos divides the land into

differing sections: land leasing, a golf course, forestry enterprises, Redi-mix concrete, gas

and convenience store, campground and RV park, cultural center, vineyards, and a

business park (Osoyoos Indian Band, 2018c). Each enterprise strives to optimize the land

available for development. Thus, the land for Spirit Ridge Resort was preplanned to

optimize sustainable land use. Beyond the hotel amenities, Spirit Ridge Resort hosts a

vineyard where hand picking grapes remains an acceptable practice (Nk'Mip Cellars,

2019). Spirit Ridge is home to a unique rattlesnake research program and promotes

restoration of native, natural rattlesnakehabitats (NDCC, 2019a). Spirit Ridge offers

enhanced employee benefits, engages in disaster relief, promotes a culture of charitable

giving, and utilizes an ethical sustainable supply chain for resort goods and services

(Hyatt, 2019a, 2019b, 2019d, 2019e).

Canadian government promotes native national economic sovereignty and

independence from the federal government (CFFNG, 2013; FNLC, 2019), a vastly

different concept then the United States federal government promotes (PBLI, 2019f). The

Canadian concept of indigenous sovereignty and the Osoyoos Band's desire for

prosperity led the tribe to investigate avenues to bring them from financial dependence to

prosperity and independence at pre-non-native interaction levels (Macdonald, 2017).

Preplanning land allocations for businesses including Sprit Ridge Resort exists as

solution for independence. The approach of a non-casino resort generating financial

independence remains a strikingly different, yet a successful option, from the path chosen

for Foxwoods, Hard Rock, and Pechanga.

Theme 2 – Natural Environment. The environment broadly encompasses the

natural environment of land, vegetation, animals, natural resources, water, air quality and

how humans interact with the natural world (Dockry et al., 2016). Spirit Ridge utilizes an

environmental database proactively planning future sustainable changes (Hyatt, 2019d).

Agriculturally, sustainable practices at Spirit Ridge includes vineyard production with

minimal use of pesticides and herbicides (Nk'Mip Cellars, 2019), use of gray water for

irrigation where needed and the use of native plants that need no irrigation in the dessert

like environment (NDCC, 2019a, 2019b). Spirit Ridge enjoys a farm to table menu

program and hand picks vineyard grapes (Nk'Mip Cellars, 2019).

To understand the habitat of the local rattlesnakes, Spirit Ridge takes

precautionary measures to ensure rattlesnake habitat remain undisturbed and protected

while ensuring the safety of resort guests on paths and hiking trails (NDCC, 2019a). One

of the goals of the rattlesnake initiative is to foster restoration of native habitats for the

variety of local animals.

Recycling initiatives include minimizing paper straw usage to only utilizing

sustainable dinnerware, plates, and glassware (Hyatt, 2019d). Mobile keys, water bottle

refill stations, bulk shower dispensers instead of individual daily toiletries bottles, and

biodegradable to-go containers represent a few of the additional reduce, reuse and recycle

undertakings (Hyatt, 2019d, 2019e) at Spirit Ridge. Polystyrene, while recyclable in bulk, is not allowed (Hyatt, 2019d, 2019e). Architecturally, Spirit Ridge boasts green roofs (NDCC, 2019b), radiant heat and cooling pipes (NDCC, 2019c), low flow water bathrooms (Hyatt, 2019d), building energy efficiency (Hyatt, 2019b, 2019d; NDCC, 2019c), use of pine beetle damaged wood as a building material (NDCC, 2019b, 2019c), and progressive building expansion with sustainable growth and practices (NDCC, 2019a, 2019b). Taking advantage of local artisan merchandise, Sprit Ridge creates unique indoor and outdoor exhibits to display indigenous products and their history.

As a sustainable Hyatt property, Spirit Ridge actively engages in water sustainable practices with water reclamation projects including gray water and water refill stations (Arnstein, 2019; Hyatt, 2019d). Spirit Ridge partnered with other government and civil entities throughout the Okanagan Valley in the joint venture to conserve and improve the surface and subsurface water quality within the valley (Arnstein, 2019; Wood, 2019).

Within an arid environment Spirit Ridge focuses on historical methods for heating and cooling buildings, revitalizing native habitats and animals, utilizing local material for building decorations and food persist as a few of the environmental practices utilized within Spirit Ridge that differ from the sustainable practices at Foxwoods, Hard Rock and Pechanga. Spirit Ridge works toward a symbiotic relationship with the region while maintaining an almost circular economy.

Theme 3 – Institutions. Community partnerships in conjunction with Spirit Ridge Resort promotes a framework in which sustainable practices thrive. Proactively

built with future expansion plans in mind, exceeding earthquake codes, utilizing green roofing, reclaiming building supplies for decorative accents, and application of a rammed earth and rebar foundations make Spirit Ridge unique (NDCC, 2019c, 2019b, 2019a). The modernized rammed earth building technique combines layers of concrete with local soil and mineral pigment which is systematically poured and tamped down. The thick rebar reinforced walls grant additional insulation, significantly reduce energy cost and increase earthquake resistance.

The importance of indigenous culture and family promotes the use of multi-sensory, indoor and outdoor exhibits and theaters, and educational research programs (NDCC, 2019b, 2019a; Osoyoos Indian Band, 2018a; Hyatt, 2019c). A strong commitment to accountable management, internal controls, community engagement, risk management, and the need to rebuild or renovate SMART resides with the management and oversite at Spirit Ridge Resort (Hyatt, 2019c. 2019d, 2019e). Sustainable projects are viewed as a whole, since the small component affect the larger institution.

The financial success of Spirit Ridge Resort and the numerous enterprises that reside on the Spirit Ridge property allow the Osoyoos Band to fund prenatal, youth, parenting and health programs for Osoyoos Band members (Osoyoos Indian Band, 2019a). At the same time, financial success also enabled the Tribal Band to address housing issues for members in Osoyoos (Hyatt, 2019a, 2019c; Osoyoos Indian Band, 2019a).

The extensive preplanning and care taken to build Spirit Ridge Resort's numerous facilities utilizing the local, historical sustainable practice of rammed earth with addition of modern rebar surpass building codes and increases earthquake resistance. This

foundation places Spirit Ridge on par with an avant-garde building style commonly held by larger operations.

Theme 4 – Technology. Committing to innovation and responding to natural changes, Spirit Ridge becomes a dynamic sustainable property. Building design for sustainable growth and practices within the resort include: subterranean levels, a multisensory theater, reinforced packed earth foundations, sustainable agricultural enterprising, maximizing ambient lighting, sustainable HVAC systems, water reuse and reclamation projects, and eco-friendly landscaping (Hyatt, 2019b, 2019d; NDCC, 2019c, 2019b, 2019a; Nk'Mip Cellars, 2019).

Educational venues include the rattlesnake research program that tracks rattlesnake habits, trails, and den location utilize state of the art technology (NDCC, 2019a). Leadership and educational training of employees and community members requires teaching methods, uses, and pushing the limits of advanced technology and technologic application within the native habitat restoration projects (Hyatt, 2019c; Osoyoos Indian Band, 2018a; NDCC, 2019a).

Technologic education for staff and community members remains level with the other resorts studied. Yet, the area within technology that exceeds other resorts include the traditional rammed earth foundations, traditional HVAC system, and rattlesnake research programs. Advanced technology for tracking rattlesnake habits and behaviors in order to protect the snakes and guests creates a joint academic program (Lomas, 2009; McGuire, 2016). Spirit Ridge utilizes technologic advances in GPS tracking to track the local rattlesnakes to learn their habits and roaming paths. Overall, the sustainable

practices that fall within the dimension of technology at Spirit Ridge remain intriguing and diverse.

Theme 5 - Economics. "People tell us about running Native business the Indian way, but there is only one way to do business and that is the business way" (Economic Realization, 2019, p. 3). The Osoyoos band moves from dependency to sustainable independency through agriculture, eco-tourism, commercial business, industrial business, and housing development. Currently, the tribe's various enterprises earn more money, annually, then the tribe receives from the provincial government.

Agricultural enterprises on the Spirit Ridge property including the vineyard and farm to table program contribute to the financial success of the enterprise (Osoyoos Indian Band, 2018c; Nk'Mip, 2019). Featuring local artists, products and merchandise especially those emphasizing the indigenous culture or heritage remains a positive step to achieving financial profits and meeting the goal of cultural sustainability (Osoyoos Indian Band, 2018b, 2018c).

Housing projects often take advantage of damaged wood for decorative purposes. Refurbishing saves money, but using the blue stained wood incurred from infestation of the pine beetle adds beauty (NDCC, 2019b, 2019c).

Charitable contributions from Spirit Ridge allow the tribe to support disaster relief, family assistance for birth and adoptions, and a wide variety of local charities (Hyatt, 2019b, 2019a, 2019c). Tribal Band independence through economic development helps preserves, enrich, and advances the Okanagan culture (CFFNG, 2013; MacDonald, 2017).

Unlike Foxwoods, Seminole Hard Rock and Pechanga, Spirit Ridge does not host a casino. Instead finances generate from the Hyatt unbound hotel, NK'Mip cellars, Sonora Dunes golf course, events, Solterra Desert Spa, and NK'Mip Desert Cultural Centre with the dominance of funding from events, the winery, and the resort's hotel. These funds assist staff and community to meet the needs of the local community.

Theme 6 - Human Perception, Activity, and Behavior. "This is how we strengthen our future by protecting our past" (Osoyoos Indian Band, 2019, p. 2). To honor their heritage, local artisans engage in presentation and sale of merchandise. Concurrently, indigenous exhibits of history, tradition, and folklore strategically placed throughout Spirit Ridge Resort enhancing the resort's ambiance and ecstatic beauty. Nature beauty combined with native plant landscapes, walking trails, and multi-sensory theaters formulate the human perception for "You'll know when you've arrived at Spirit Ridge; there's no mistaking the gently sloping vineyards, glittering Osoyoos Lake, the dramatic Okanagan Range, part of the Cascade Mountains, that surround the luxury resort. Welcome to Canada's only desert, a place sacred to the Osoyoos Indian Band" (Hyatt Spirit Ridge, 2019, p. 1).

Spirit Ridge encourages a volunteer culture and charitable contributions in the areas of education, career and leadership development, wellness, local disaster relief, and environmental conservation (Hyatt, 2019c; NDCC, 2019b). The resort offers employees family assistance including birth and adoptions, tuition reimbursement (Hyatt, 2019c).

Funding from Spirit Ridge allows the Osoyoos Band to underwrite medical care, education, reservation infrastructure, and local housing (CFFNG, 2013; Centre for

Sustainability, 2011; Osoyoos Indian Band, 2018a, 2019c). Spirit Ridge significantly increased Tribal Band employment and employment options for the surrounding community.

Spirit Ridge presents their history in various aspects of the resort: foundations, hand picking grapes, architectural accents, and environmental conservation education. With the Osoyoos Indian Band proudly displaying its history and culture, there exists no doubt that a guest is visiting a Tribal owned and operated resort.

Thematic map – integrating the themes. Sustainable practices within Spirit Ridge are multidimensional. The Osoyoos Indian Band incorporates traditional beliefs and tribal history throughout all aspects of operation. As the Osoyoos Indian Band homepage states, they "strengthen our future by protecting our past" (p.2). Figure 4 examines the sustainable practice that exemplifies the principle of protection and interconnection.

To showcase how one practice or program can be located in each of the six dimensions of the SDI model, the researcher chose a different practice or program focus in different dimensions for each of the resorts and explained how the practice or program functions in each sphere. Within Sprit Ridge (NK'Mip), the rammed earth and rebar foundation plays a major role in their ability to maintain facilities and the aesthetic uniqueness (Figure 6); while simultaneously belonging within the two dimensions of Institutions and Land and Sovereignty. Therefore, the sustainable practice or program examined through all six spheres for Spirit Ridge is the rammed earth and rebar foundation.

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Figure 6: Application of SDI model, Rammed Earth.

Historically, rammed earth foundation typifies the historic building style of the region (Figure 6). Due to national sovereignty (Theme 1) and a desire to showcase this sustainable knowledge, Spirit Ridge resides atop the rammed earth and rebar foundation (NDCC, 2019c). This foundation allows for the building to gain vertical height verses spreading horizontally and minimizing the disturbance of the native environment (Theme 2) (NDCC, 2019a, 2019c). With the use of local ingredients into the foundation, minimal environmental contamination from foreign substances occurs. The resort (Theme 3) benefits from the rammed earth foundation by the unique building architecture and natural ease of maintenance. Introducing current rebar technology (Theme 4) to the historic rammed earth construction allows the building to exceed earthquake codes while supplying additional, sustainable insulation for the local climatic weather (NDCC,

2019c). Insulation naturally provided by the rammed earth foundation generates cost savings (Theme 5) savings in heating and cooling for the resort (NDCC, 2019c). Human perception (Theme 6) for the building remains inspiring. In addition to other sustainable practices implemented throughout the resort, the exposed rammed earth foundations create a natural architectural beauty for the facility.

Integrating the themes from the four different Tribal Nations resorts.

For the following section an inductive orientation within the reflective approach utilizes Thematic Analysis. After placing the sustainable practices within the six dimensions of the SDI model, the researcher explores the possibility of sub-themes within the SDI model, based on the sustainable practices within each dimension. The researcher groups similar practices and the sub-themes together as summarized in Tables 5-10 and Figure 7. These sub-themes are applicable for the resorts.

Table 5

Theme 1 - Sovereignty and Land Compilation

Sub-Theme	Resorts			
	Foxwoods	**Hard Rock**	**Pechanga**	**Spirit Ridge**
Community partners	YES	YES	YES	YES
Charitable contributions	YES	YES	YES	YES
Eco-tourism	YES	YES	YES	YES
Education	YES	YES	YES	YES
Self-reliance	YES	YES	YES	YES
Water reclamation	YES	YES	YES	YES

Current indigenous nations control their own economy, culture, politics, and educational institutions (Magni, 2017). Within sovereignty (Theme 1) resides the control of tribal land. For Foxwoods, Hard Rock, Pechanga, and Spirit Ridge resorts controlling the land and what happens on the land allows the resorts the freedom to choose their community partners, encourage eco-tourism, promote education of tribal heritage and

general education, embrace alternative energy, and undertake water reclamation. Taking advantage of their right of sovereignty, all four resorts fully participate in sustainable practices due to national sovereignty and control over the land on which their facilities operate.

Table 6

Theme 2 - Environment Compilation

Sub-Theme	Resorts			
	Foxwoods	**Hard Rock**	**Pechanga**	**Spirit Ridge**
Agricultural enterprise	YES	YES	YES	YES
Power generation	YES	UNDER CONSTRUCTION	YES	NO
Recycling / Repurpose	YES	YES	YES	YES
SMART architecture	YES	YES	YES	YES
Water reclamation	YES	YES	YES	YES

If the pervasive non-native culture promotes the concept that "the waters are polluted. Our natural resources are all but gone and creation is dying" (Wright, 2015), then this studies resorts defy the norm. Foxwoods, Hard Rock, Pechanga, and Spirit Ridge resorts find ways to respect the earth with a gamut of environmentally sustainable practices. Sustainably designed landscapes provide functionality, energy savings, conservation of natural resources and beauty, by integrating integrate resort grounds with the ecological system (Beck, 2012).

All four resorts utilize repurpose and recycling programs within the resorts, SMART architecture for building the resorts, and extensive water reclamation projects both on resort property and within their regions. Foxwoods, Hard Rock, and Spirit Ridge maintain sustainable agricultural enterprises to use reclaimed water, provide an additional revenue streams for the nation, and assist in the farm to table programs.

According to the National Research Council (2018), indigenous people believe natural resources should be respected. Power generation at Foxwoods and Pechanga supply heat and electricity for the resorts, but the power plants also supply heat and electricity for the surrounding community. The Seminole Hard Rock Casino and Resort's expansion project includes a power generation facility to accommodate the resort's needs. Once the Hard Rock power generation facility comes online, the three resorts, Foxwoods, Hard Rock, and Pechanga will host on-site green power generation facilities.

Table 7

Theme 3 - Institution Compilation

Sub-Theme	Resorts			
	Foxwoods	**Hard Rock**	**Pechanga**	**Spirit Ridge**
Community partners	YES	YES	YES	YES
Education	YES	YES	YES	YES
Government contracts	YES	YES	YES	YES
Housing	YES	YES	YES	YES
Leadership development	YES	NO	YES	YES
Volunteerism	YES	YES	YES	YES

"There was a time when he [people] gave something back" (Wright, 2015). Operating within their respective communities all four resorts give back to their communities by establishing community partnerships, signing and negotiating government contracts for the resort, facilitating housing options within the local community, and encouraging a spirit of volunteerism with its employees and patrons. Education persists as a cornerstone for Foxwoods, Hard Rock, Pechanga, and Spirit Ridge as they promote the tribal cultural heritage and through financial support effect the educational initiatives throughout their respective communities and their tribe. Leadership development continues as a primary thrust for promoting employees within Foxwood, Pechanga, and Spirit Ridge resorts. The core of institutional driven programs

acts as path to remaining an integral, sustainable member of their respective communities

and regions.

Table 8

Theme 4 - Economics Compilation

Sub-Theme	Resorts			
	Foxwoods	**Hard Rock**	**Pechanga**	**Spirit Ridge**
Agriculture	YES	YES	NO	YES
Communications	YES	YES	YES	YES
Energy production	YES	UNDER CONSTRUCTION	YES	YES
Green Architecture	YES	YES	YES	YES
SMART technologies	YES	YES	YES	YES
Water resources	YES	YES	YES	YES

"We employ innovative technologies to plan, implement, track and communicate

how we operate responsibly to mitigate climate-related risk, benefitting our business and

the communities we serve" (Marriott International, 2019, p. 2). By utilizing, expanding,

and applying modern technology to indigenous knowledge concerning sustainable

practices, Foxwoods, Hard Rock, Pechanga, and Spirit Ridge successfully implement

sustainable practices throughout their facilities. Advancing technologies yield successful,

avant-garde application of sustainable practices at Foxwoods, Hard Rock, Pechanga, and

Spirit Ridge in the areas of green architecture, applying SMART technologies, aggressive

water resource management, and state-of-the-art communication. Technologic advances

allow for the co-generation power plants at Foxwoods and Pechanga and the use of solar

and wind power to allow Spirit Ridge to remain off the power grid.

Table 9

Theme 5 - Economics Compilation

Sub-Theme	Resorts			
	Foxwoods	**Hard Rock**	**Pechanga**	**Spirit Ridge**
Agriculture	YES	YES	YES	YES
Art	YES	YES	NO	YES
Charitable contributions	YES	YES	YES	YES
Energy Production	YES	UNDER CONSTRUCTION	YES	YES
Local use	YES	YES	YES	YES
Transportation	YES	YES	NO	NO

A sense that all things interconnect permeates various Native American cultures (Willows, 2010). Thus, financial consideration of sustainable practices remains a segment of a larger sustainable picture. Yet, economics remains a central consideration. As Chief Clarence Louie of the Osoyoos nation claimed, "People tell us about running Native business the Indian way, but there is only one way to do business and that is the business way" (CFFNG, 2013, p. 3).

The agriculture undertakings utilize sustainable practices at all four venues and yield a reduction in cost due to reuse and recycle water programs, the use of native plants, and efficiencies in the maintenance programs. Foxwoods, Hard Rock, Pechanga, and Spirit Ridge grant charitable contributions from the economic success of their respective resorts. Charitable contributions provide an additional venue for the resort to generate a symbiotic, sustainable relationship with their respective communities.

Native American Tribal Nations commonly host renewable energy systems on their lands (Acker et al., 2003; Nine Tribes, 2013). Co-generation energy production saves millions of dollars annually for Foxwoods and Pechanga and provide an additional economic stream of income from the resort land due to the wholesale of excess electricity to the surrounding power grid. Comparatively, Spirit Ridge Resort maintains an off-the-

grid status for the resorts electrical service via utilization of wind turbines and solar

panels to meet the resorts power needs.

Foxwoods, Hard Rock, Pechanga, and Spirit Ridge obtain additional economic

savings through their utilization of local products and merchandise wherever possible.

Beyond 'staying local', Foxwoods and Hard Rock maintain their own fleets of vehicles

for transportation of resort guests and business operations.

Table 10

Theme 6 - Human Perception, Activity, and Behavior Compilation

Sub-Theme	Resorts			
	Foxwoods	**Hard Rock**	**Pechanga**	**Spirit Ridge**
Communication	YES	YES	YES	YES
Disaster Relief	YES	YES	NO	YES
Education	YES	YES	YES	YES
Medical	YES	YES	YES	YES
Personal Care	YES	YES	YES	YES
Volunteerism	YES	YES	YES	YES
Water Treatment	YES	YES	YES	YES

"A people of tradition, we do not let the sun rise or set without remembering who

we are" (PBLI, 2019b, p. 1). Human perception and behavior remain a focus for

Foxwoods, Hard Rock, Pechanga, and Spirit Ridge as they engage in combining

hospitality, tourism, and education into their resorts. Each resort stands as a regional

destination center where people are encouraged to enjoy their stay.

Rodney Butler, Chairman of the Mashantucket Pequot Tribal Nations explained,

"Before gaming, we were an afterthought. We were on this postage stamp we call

Mashantucket. It's 1,600 acres, but it was down to 200 acres of swampland and ledge.

Quite frankly, land that was useless for anything else" (Wells, 2019, p. 2). But perception

of the indigenous nations shifted for all four of the Tribal Nations as their respective

resorts produce the financial means for improved healthcare, cultural heritage revival,

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opportunities for employment, disaster relief, and education for the employees and community members.

Community focus and incorporation of successful sustainable practices provide long term benefits for the communities surrounding Foxwoods, Hard Rock, Pechanga, and Spirit Ridge, even with changing environments, technologies, and situations (Cattelino, 2008; Lightfoot et al., 2013; VanCooten, 2014). In addition, an emphasis on volunteering endures at Foxwoods, Hard Rock, Pechanga, and Spirit Ridge to support the local community and other outreaches. Successful communication initiatives abound in promoting and supporting patrons, employees, and the surrounding community with interactive exhibits and disability services.

All four resorts understand that human perception and personal behavior remains integral in implementing sustainable water programs. Each sustainable water program varies, but the goal of reducing the communities water vulnerability to fresh, potable water remains consistent between Foxwoods, Hard Rock, Pechanga, and Spirit Ridge.

Throughout the four resorts multiple sub-themes permeate various dimensions (Figure 7) of the SDI model. In reference to Tables 5-10, Figure 7 portrays the sub-themes in a format to visually compare how various sub-themes transcend each of the six themes. Agricultural enterprises and participation on a resort level fall within Environment, Technology and Economics. Where water reclamation and treatment falls within Land and Sovereignty, Environment, Technology and Human Perception Activity and Behavior.

Figure 7: Application of the SDI model, Integrating Sub-Themes

All four resorts participate in similar practices (Table 11) and utilize various

sustainable practices that are unique to each resort (Table 12).

Table 11

Similar Sustainable Practices Through all Four Resorts

Practices
Benefit events
Charitable contributions
Co-generation energy facilities
Culture of volunteerism and community
Disaster relief funds
Electric car charging stations
Eliminating plastic
Environmental
Ethical supply chain
Extensive recycling
Farm to table
Financial assistance
Floor to ceiling windows
Golfing greens and landscaping
Gray water
Green roofs
Indigenous arts and crafts production
Indoor and outdoor event space

Table 11 continued

Practices
LED lighting
Low flow water fixtures
Maximize ambient lighting
Native plants
Partner with local agencies
Poverty relief organizations
Professional development
Rebuild or renovate SMART
SMART architecture to interact with environment
Up to date technology
Waste disposal programs
Water reclamation projects
Water refill stations

While knowing what sustainable practices all four resorts applied (Table 11),

various sustainable practices remain unique to one or two of the resorts (Table 12).

Table 12

Unique Sustainable Practices at each of the Four Resorts

Practices
Artifact replica productions
Bio-degradable to go containers
Buildings materials, codes and expansion plans
Bulk shower dispensers
Child advocacy assistance
Co-creation of exhibits with other indigenous tribes
Complementary shuttles
Comprehensive healthcare
Donation of linens, hygiene products, and toilet paper to local missions
Earth Day lights out
Emergency response services
Employee short term counselling
Environmental database for current and future needs
Fast Emergency Services
Hand pick grapes in vineyard
Health and sanitation programs, globally
Historical demonstrations
Hydropower system for gray water
Indoor and outdoor event space
Infrared closed captions, multisensory displays
Interactive Villages/Exhibits
Life-long disability services
Local building material
Local damaged wood in building accents
Low budget housing
Minimum herbicides and pesticides
Multi-sensory exhibits and theaters
Music Education and Therapy programs
Non-toxic chemicals for cleaning
On-demand heating and cooling
Preplan future expansion for sustainable growth and land use
Radiant heating and cooling pipes

Table 12 continued

Practices
Resort gardens
Ride share programs
Seminole Everglades Restoration Initiative
Serving organic brain food to employees
Solar Panels
Swamp restoration
Unused or not needed medication return program
Video documentation of tribal histories, languages and culture
Water drought and conservation plans
Woodland with sustainable timer management

Water Projects. Conversely, while each resort within this study: Foxwoods, Hard

Rock, Pechanga, and Spirit Ridge (NK'MIP) Resort, participate in various sustainable

water projects, the projects vary in form, they all employ sustainable water practices

(Figure 8). Each resort utilizes low-flow, auto-flush toilets within rooms and facilities

(Hasek, 2009; Environment, 2016; NDCC, 2019b) and a linen reuse program for stayover

guests. Energy Star appliances and applications dominate throughout all facilities

alongside extensive recycling programs for both the front and back of house.
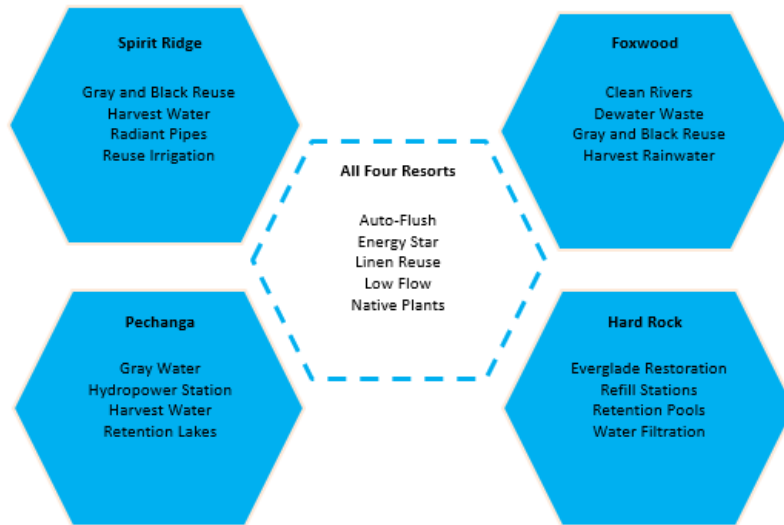
Figure 8: Sustainable water practice similarities and differences

The methods that the Mashantucket (Western) Pequot Tribal Nation utilize within Foxwoods Resort Casino prevails as predominantly reclamation and education (Figure 8). Foxwoods Resort Casino boast a dynamic series of water reclamation projects for irrigation and swamp restoration including water retention, gray and black water reuse, dewatering waste, and rain harvesting (DEEP, 2015; ProMinent, 2019). In order to treat wastewater, two water treatment facilities are located on the Foxwoods Resort Casino property. One facility reclaims approximately 95% (ProMinent, 2019) of the waste by dewaterization of black water. The other facility is for water treatment. Consequently, treated water is repurposed for landscape irrigation, golfing greens, and swamp restoration. Harvested rainwater irrigates green roofs and new timber areas. In addition to reclaiming wastewater, Foxwoods Resort Casino hosts training and education classes on environmental sustainability as well as the Connecticut sustainability annual awards ceremony (Borsuk, 2018).

Reuse and diversion continue as the main methods of water sustainability within the Seminole Hard Rock Hotels and Casinos (Figure 8). The Seminole Tribe of Florida contracted with the State of Florida in 1987 to secure federal water right on and around each Florida Seminole Reservation (Walker, 2011). Designed to mitigate the impacts of development on the local ecosystems, the Seminole Water Rights Compact improves water quality, storage capacity, enhances hydroperiods, improves flood control, stores water for irrigation (STOF, 2019a), as well as reduces invasive plant life (USACE, 2017).

The Governor's Commission for a Sustainable South Florida incorporates the Seminole Water Rights Compact and the Seminole Everglades Restoration Initiative. The

goal of the Seminole Everglades Restoration Initiative is to restore and protect the

Everglades and other water sources within South Florida (STOF, 2019a).

In addition to possessing the water rights on all Florida Seminole Reservation, the

Hollywood Reservation built a water treatment facility near the Hard Rock Casino and

Resort to accommodate the resort and the local communities (Wharton-Smith, 2018).

Seminole Hard Rock Resort participates in various water recycling and reducing

programs. Each Seminole Hard Rock (Tampa & Hollywood) utilize retention ponds for

landscape irrigation and fire protection measures (Buckley, 2019). In conjunction with

Hard Rock eliminating plastic products and reducing water waste, Hard Rock Hotel

Hollywood installed an industrial onsite water filtration system to bottle water into glass

bottles (Hasek, 2009). Thus, Hark Rock reduces both solid and water waste.

Pechanga Resort and Casino takes a different approach to water reclamation,

harvesting, and treatment (Figure 8). Harvested into golf course lakes, enough rainwater

is stored to accommodate water usage for 1,122 hotel rooms for 217 days (Environment,

2016). Administrators follow weather patterns in order to drain water out of the lakes into

storage units for irrigation and repurposing before storms in order to harvest

supplementary rainwater.

Additionally, Pechanga annually recovers approximately 100,000 gallons of water

from the on-site turbine cooling systems which is treated and used for laundry, kitchens,

and irrigation (Green, 2015). As the Pechanga Nation, they possess rights to the Southern

California Aquifer. Pechanga also owns a hydropower plant within their Western Electric

Corporation for both electricity and treating water for reuse (Nu'uhlwa, 2019).

Spirit Ridge (NK'Mip) Resort utilizes multiple methods for sustainable water projects. Spirit Ridge employs different methods from Seminole Hard Rock Hotel and Resorts, Pechanga Resort and Casino, and Foxwoods Resort Casino (Figure 8) in using waterless urinals and dual-flush small tank toilets, as well as, landscaping with local plants that require no irrigation (NDCC, 2019b). The museum, lobby, winery, and multiple restaurants utilize radiant hot water pipes in the floor to keep the buildings warm in the winter. Cold water pipes are used within the ceiling of the same buildings to cool the summer temperatures (NDCC, 2019b). To combat the high levels of nitrate (Arnstein, 2019) and manganese (Wood, 2019) in the aquifers, Spirit Ridge takes advantage of extensive water reuse, treatment, and harvesting programs. Extracted water first moves through on-site treatment facilities for usage in consumption and washing. After first use, wastewater is separated for various destinations dependent upon what it was used for. For example, winery washdown water stays to be reused for additional winery washdowns before being sent to vineyard irrigation (Garcia & Garcia, 2016). Treated black water is diverted for irrigation. Irrigation utilizes a direct to plant mechanical system that measures the water released and quality (Garcia & Garcia, 2016). Harvested rainwater from roofs and drains recycles for use upon the green roofs or treated for washing and consumption (Garcia & Garcia, 2016).

Summary of Findings

Utilizing historical and modern sustainable practices within Tribal owned or Tribal operated resorts allows Foxwoods, Seminole Hard Rock, Pechanga, and Spirit Ridge resorts to "gave something back" (Wright, 2015, p. 1) or "find our way back to the earth" (Wright, 2015, p. 1). Ultimately, the four researched resorts, Foxwoods, Hard

Rock, Pechanga, and Spirit Ridge, participate in multiple sustainable practices which fall within each of the six SDI model's spheres of sustainability.

The results point that the numerous and varying sustainable practices and programs form unique patterns (Bremner & Wikitera, 2016; Dockry et al., 2016; Nakashima & Roué, 2002; Piner & Paradis, 2004). Sustainable practices remain a means to improve the local environment (Clarke, 1997; Frost el al., 2014; Gill & Williams, 2011; Jayawardena et al, 2013; Lim, 2016), improve the quality of life for their people (DeGrosbois, 2012; Moreo et al., 2009; UNEP, 2017; Wan et al., 2017) and offer a revenue stream (CFFNG, 2013; Centre for Sustainability, 2011;Cornell & Kait, 2007; Eisler, 2002) for the Tribal Nation. The primary objective of the Tribal Nations when entering the hospitality industry with a large-scale resort endures as a means to gain economic freedom (Benson, Berry, Jolie, Spangler, Stahle, & Hattori, 2007; Chang, 2015; Chappell, 2002; Clark, 2008; Dreveskracht, 2013; Minster, 2018; Pauketat, 2009; Steffans, 2019; Yates, 2014) and become autonomous (Beck, 2005, Taylor, 2019) while simultaneously protecting the environment within which they live (Koenig, 2018a).

CHAPTER V

DISCUSION AND CONCULSIONS

Discussion of research findings

The foundations for this thesis stemmed from the three objectives, which were to: (1) Identify the sustainable practices presented in publicly accessible documents currently applied at Native American owned or operated resorts; (2) Categorize the identified sustainable practices under the SDI model of sustainability (SDI); (3) Identify the similarities and differences between the application of sustainable practices in the chosen Native American resorts.

Through analyzing publicly accessible documents for sustainable practices and programs at Foxwoods Resort Casino of the Mashantucket Pequot Tribal Nation, Hard Rock Hotel and Resorts of the Seminole Tribe of Florida, Pechanga Resort and Casino of the Pechanga Band of Luiseño Indians, and Spirit Ridge (NK'MIP) Resort of the Osoyoos Indian Band various patterns became notable. Primarily, research shows (Tables 1-4) documented sustainable practices undertaken at the respective four resorts.

Collectively, the data displays similar patterns. Each of the four tribes explains that their resort produced a 'rags to riches' story for their nation. The desire for

employment stems from the knowledge that a working culture reflects the "self-supporting lifestyle of our ancestors" (SBOC, 1984, p. 6). The resorts became a method of lifting the people from poverty by first providing job training and employment. During the planning stages for the resorts, each nation expresses the desire that economic wellbeing could lead to sovereignty. Thus, from the resort's inception, the end goal of the resort encompasses more than finances or a profitable facility (Benson, Berry, Jolie, Spangler, Stahle, & Hattori, 2007; Chang, 2015; Chappell, 2002; Clark, 2008; Dreveskracht, 2013; Minster, 2018; Pauketat, 2009; Steffans, 2019; Yates, 2014). The end goal encompasses the desire for land and sovereignty (Beck, 2005, Taylor, 2019), environment (Koenig, 2018a), institution including education, economics (CFFNG, 2013; Centre for Sustainability, 2011; Cornell & Kait, 2007; Eisler, 2002), and productive human perception, activity, and behavior (DeGrosbois, 2012; Moreo et al., 2009; UNEP, 2017; Wan et al., 2017). Collectively, the resort goals hold five of the six of the SDI model's dimensions from the onset. The implementation of technology, often in advanced form, eventually brought further economic profit (Benedict, 2000; Eisler, 2002; Koenig, 2019b; Macdonald, 2017; Spilde, 2004) and allows for additional revenue streams (Cattlino, 2008) for the resorts. Through the successful establishment of Foxwoods, Hard Rock, Pechanga, and Spirit Ridge, the owning tribes defy the narrative of indigenous people lead a lifestyle of subsistent (Sherman et al., 2010).

Each of the four nations employ various indigenous systems of knowledge, sound environmental and cultural principles. This allows for sustainable practices to be imbedded in the planning stages of the resorts. The Pequot know how to successfully and sustainably harvest timber. The Seminole acknowledge how to sustainably live in the

Everglades. The Pechanga cherish water. The Osoyoos Indian Band recognize how to construct sustainable foundations within their desert-like environment.

Each of the four Tribal Nations hold a historical belief that life connects the various spheres and must be stewarded (Benson, Berry, Jolie, Spangler, Stahle, & Hattori, 2007; Chang, 2015; Chappell, 2002; Clark, 2008; Dreveskracht, 2013; Minster, 2018; Pauketat, 2009; Steffans, 2019; Yates, 2014). The historical belief that the current generation must assist future generations by incorporating their heritage into their current company culture (Leonetti, 2010; Lightfoot et al., 2013; Nakashima & Roué, 2002). Each of the Tribal Nations willingly explore a diverse array of sustainable practices, programs, and partnerships with local organizations and community developments to create a symbiotic relationship between the resort and the community.

Many sustainable practices and programs categorize within multiple dimensions of the six SDI model dimensions. Each sustainable practice and program share common ideas including reduce, reuse, recycle, restore, educate, and protect. Yet, the actual sustainable practice often remains unique per resort. The unique participation of practices is due to each resort focusing on their local and regional communities needs and limitations. As Chief Clarence Louie for the Osoyoos Band affirms, "You have to exploit whatever potential there is in the area. If you are on the coasts its trees and fish. If you up north, it's mining and forestry. For us, it's agriculture and tourism. You let your natural resources tell you what business you're in" (MacDonald, 2017, p. 56). Yes, each resort developed from the Tribal Nation looking at the realistic potential of their land. In the same manner, water protection and a goal of zero landfill waste remain two sustainable practices held by each resort. Foxwoods, Hard Rock, Pechanga, and Spirit Ridge

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approached these two concepts differently. However, the resorts achieve the same desired results.

Using the SDI model presents the format and guidelines to follow in order to view sustainable practices as holistic, interconnecting practice and not as a single time event. How one sustainable practice affects and influences the six different SDI model dimensions or themes expands the knowledge of and implication of sustainable practices. Ironically, companies and individuals often view sustainable practices as a single unit, a one-time event, like the traditional reusing towels when staying in a hotel more than one night (AHLA, 2019; Nuwer, 2014). Yet, reusing a towel impacts multiple themes such as environmental (did not use the water), human perception (it is just like home), institution (the choice is yours), and economic (saves the facility cost in machine wear and tear, labor, electricity). Applying the SDI model within the hospitality industry generates a larger, fuller, more holistic view of the effects of potential sustainable practices and the interconnect spheres or theme allow the effects of sustainability to become apparent.

Within the general hospitality industry and academia, there exist minimal studies and information on how a single sustainable practice or program can affect all departments of a facility or how a hospitality facility interacts and partners with the surrounding community. Most resort studies discuss the financial benefits and initial loss of implementing sustainable practices (Garrod & Fyall, 1998; Rodriquez-Anton et al., 2012) or environmental protection and restoration through reduce, reuse and recycle programs for the hospitality facility (Erdogan & Tosum, 2009; Jones, Hiller & Comfort, 2015). Other researchers primarily focus on specific individual practices, programs or areas within a location or region such as energy, water, food, and plastics (Jayawardena

et al., 2013; Kim et al., 2016; Wan et al., 2017). There are various studies on how tourism

impacts a region's natural environment (Environment, 2016; Thanvisitthpon, 2016) and

economic development (MacDonald & Jolliffe, 2003).

In the same manner, indigenous hospitality research concentrate on general

tourism for cultural events and sites (Bremner & Wikitera, 2017; Burger, 2011; 2012),

but not specifically resorts and hotels. A viewpoint from patrons, general public opinion,

to the cultural events and sites remains paramount (Burger, 2011; 2012). How attendance

and visitations promote indigenous culture and knowledge is another area of research

(Bremner & Wikitera, 2017) along with the longevity of a tribal government's

infrastructure (Alvarez, 2011; Long et al., 2003; Piner & Paradis, 2004).

Meanwhile, there remains a scant amount of studies in the area of lodging,

specifically resorts, that are indigenous owned or operated and their use of sustainable

practices. For that matter, research into from a multidimensional standpoint or holistic

view of sustainable practices utilized within hospitality facilities remains almost

nonexistent.

One case study of a Native American resort concerning the resort's sustainable

practices is Fuller et al.'s (2016) case study on Inn of the Mountain Gods Resort and

Casino. Fuller et al. (2016) explores the 'green' practices that the resort implements.

Unfortunately, Fuller et al. (2016) only researches what sustainable practices were

performed. Fuller et al.'s (2016) study differs from this current study in the aspect that

this study does not list the sustainable practices by department but categorizes within the

resort but categorizes and views the sustainable practices and programs through the six

dimensions or themes of the SDI model. Facilities can become a sustainable property in

more than reduce, reuse and recycling. In contrast, utilizing the SDI model of sustainability, this study is one of the first holistic approach studies within hospitality, specifically indigenous hospitality.

A Thematic Analysis of Sustainable Practices at Four Native American Resorts examines the combination and interconnection between programs and practices from various departments within four Native American owned or operated resorts. It starts with sustainable practices a resort uses and progresses outward to examine the effects of the sustainable practice. In caparison to other studies concerning indigenous sustainable practices, this study examines multiple practices performed at four locations (Foxwoods Resort Casino, Seminole Hard Rocks Hotels and Resorts, Pechanga Resort Casino, and Spirit Ridge) and how each practice falls under the six dimensions of the SDI model.

From the findings new knowledge ascertains that within the four Native American owned or operated resorts that sustainable practices are vast in number and each sustainable practice influences multiple SDI model spheres. Furthermore, the new knowledge that sustainable practices hold not just financial or environmental importance but consideration and inclusion of the influence upon institutions, community, and cultural aspects of the sustainable practices should also be recognized. Additionally, this study finds that Tribal owned or Tribal managed resort apply traditional beliefs and sustainable practices along with modern sustainable practices in a holistically manner throughout their respective facilities and community.

The essence of the volume of sustainable practices and programs used at Foxwoods, Hard Rock, Pechanga, and Spirit Ridge manifests from the holistic mindset

and the desire to use in their hospitality venues as a means to better their community. For

all four of the resorts, economics only remains part of a larger equation. One of the

largest hinderances to implementing sustainable practices is the initial start-up cost

(Geissdoerfer et al., 2017), but Foxwoods, Hard Rock, Pechanga, and Spirit Ridge resorts

waited for the financial return from the initial investment because they understood that

for many sustainable practices like water preservation and reclamation there exist

multiple, non-financial benefits that hold larger significance to longevity. Both Foxwoods

Resort and Casino and Spirit Ridge within their conceptual designs for the current resort

facilities utilize a multi-dimensional, multi-themed approach to examining sustainable

programs.

Theoretical Contribution.

This study adds value and knowledge to the minimally existing body of

knowledge concerning the holistic, multi-dimensional consideration of sustainable

practices, especially those used in Native American hotels and resorts. This study

presents new information in that sustainable practices affect multiple SDI dimensions and

opposes the narrative that sustainable practices only affect the environmental aspect

through the practice of reduce-reuse-recycle.

This study exists as one of the first studies to consider the interconnecting effects

of sustainable practices within hospitality, specifically Native American resorts. Thus,

Figures 1-6 graphically presents additional evidence that sustainable practices

interconnect and affect other areas; that no sustainable practice exists that affects only

one theme. An implication of this study is that scholars can also use the SDI model's six

dimensions of sustainable practices to identify and categorize sustainable practices with other facilities into the interconnecting sustainability spheres.

While it is easy to place a sustainable practice within one dimension of SDI model, this research takes the practice one step further and explains in Figures 3-6 how a single practice connects under each dimension. Dockry et al. (2016), defines the six SDI model dimensions, leaving interpretation of how sustainable practices connect and impact each other and the differing spheres. The primary classification of sustainable practices at the four resorts themes allows for the creation of sub-themes within each SDI model spheres. These sub-themes, Tables 5-10, are not the only possible sub-themes for each dimension but are meant to be a starting point for future research and review of preformed or potential sustainable practices, programs, actions, and behaviors.

This thesis provides support for using the SDI model to show how sustainable practices can be applied holistically. First, in addition to the SDI model applying to agricultural industries like forestry (Dockery, 2012), resorts can use the SDI model to examine sustainable practices at their facility. Second, this study shows that application of the SDI model accurately summarizes and leads the examiner to consider the effects that sustainable practices have within the facility and throughout the surrounding community. Third, this study confirms that sustainable practices should not only be considered within the sphere of economics with strict adherence to the travel cost method (Fleming & Cook, 2007) or contingent valuation method (Cummings & Taylor, 1999; Jones et al., 2016; Schreiner et al., 1985), but a holistic approach that examines how sustainable practices can effect multiple sphere of the resort and surrounding community.

Practical Contributions. From the practical standpoint, given that the hospitality industry tends to focus on profits (Chan, 2011; Jones et al., 2016) and consumer perceptions (Lim, 2016), this study brings a new method to the hospitality industry so that practitioners and academia can evaluate sustainable practices in a multiconnection, interdimensional form instead of a singular system with financial profitability as the sole focus. While this knowledge may be considered conceptual, simply a model, or thought process, the impetus to utilize or implement sustainable practices with a hotel or resort rests on the employee's understanding how and why the sustainable practice exists. Without the knowledge as to how a sustainable practice like rain harvesting effects the environment, the facility, technologies, cost savings, and an employee might choose to circumvent or accidently sabotage the sustainable practice.

A Thematic Analysis of Sustainable Practices at Four Native American Resorts provides a framework of how the SDI model can be used as a tool to promote the adaptation and implementation of sustainable practices into resort facilities that yield positive impact upon the land, environment, local and sometimes regional institutions, economic impact both locally and potentially regionally, and guest and local perception and activities.

The application for industry practitioners resonates as introspective. An implication of the study is so that practitioners can use the data from the sustainable practices at Foxwoods, Seminole Hard Rock, Pechanga, and Spirit Ridge to help identify, categorize, and examine sustainable practices within their own facilities. How do the sustainable practices in their facilities fit into the interconnecting sustainable SDI model's spheres? What is your facility's relationship within the community? Is the community

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there to just rent space? What actions could industry practitioners take to lessen their facilities effect the natural environment? What water reclamation or reuse initiatives does your hospitality practice? How does your facility treat waste? Does your facility truly implement and use sustainable practices, or as many hotels and resorts, does your facility just hang "green" signs but neglect to view sustainable practices as functional and something to embrace within the facility? To answer these questions, among others, a facility could create comprehensive sustainable practices policies complying with the SDI model's spheres.

The practical implication of this study is to provide examples and encourage other native and non-native hospitality practitioners to examine the plethora of sustainable practices and programs that have been developed and have sustainable track records for use, for potential use in their facilities. Could one, a few, or many sustainable programs be implemented in your facility?

Limitations of this study. Due to the forerunner nature of this study, there exist limitations in the research design and presentation. The collection of research and data analysis of the sustainable practices of each resort limits in scope to primary and secondary online information concerning Foxwoods, Seminole Hard Rock, Pechanga, and Spirit Ridge. With expansion of the scope of research, a more extensive and in-depth analysis of each resort would be possible. Along the lines of a greater in-depth understanding of sustainable practice use, the multiple effects of the sustainable practices would increase via interviewing resort employees, managers, patrons, and the owning tribal officials overseeing the resorts. Additional data compiled in detail instead of

summary form from publicly accessible online documents would have added quantitative information on the sustainable practices already noted in the study.

Sample size is another limitation within this study as four of the largest resorts within their respective regions are used. Normally sample size would not be limitation for qualitative studies, but this study utilizes only four resorts out of 103 Native American owned or operated resorts, equaling 4% of the population. Braun et al. (2018) and Hennink et al. (2016) both state a qualitative study should have a minimum of ten participants. In order to gain a more thorough analysis of sustainable practices utilized by Native American Tribal owned or Tribal operated resorts, more resorts from each region should be analyzed and their sustainable practices categorized into the SDI model. This study found that the four resorts relatively follow the SDI model of sustainability and utilize multiple sustainable programs and practices. In fact, Foxwoods, Seminole Hard Rock, Pechanga, and Spirit Ridge resorts succeed in creating almost independent, circular economies. The creation of semi-circular economies may not be the case for other Tribal owned or Tribal operated resorts.

The third limitation is that the four resorts in question are potential outliers within the population of Native American owned or operated resorts within the contiguous United States and Canada. All four resorts, Foxwoods, Seminole Hard Rock, Pechanga, and Spirit Ridge possess local, state, provincial, or regional sustainability awards and boast of being travel destinations. All four resorts remain regional leaders in the hospitality tourism industry within their respective regions. All four resorts remain engaged with their local communities.

This thesis can be considered a starting point for future research concerning the SDI model and the usage of sustainable practices within the hotel and resort venues, both indigenous and non-indigenous. It can also be considered a starting point in viewing hospitality facilities as a method to assist in community development for improvement of infrastructure, community services and cultural traditions.

Research related to Native American hospitality and the application of SDI model of sustainability remains in infancy. More, much more, knowledge remains cloistered and available within native hospitality venues. This study only begins to scratch the depth of indigenous systems of knowledge for successful sustainable practices that could be applied in both native and non-native hotels and resorts.

Potential future research. Future research should address the limitations of this study and expand upon the information presented. First, future studies should examine more resorts, including Native, non-native and international venues. Second, to delve deeper into the sustainable practices at resorts future studies should expand the scope of data sources and include primary sources, such as owners, managers, employees, and guests. Future studies could also take into consideration how long the resort has been operational, department-based practices, or the regional culture on the resort. Also cost analysis or another financial based analysis can be applied in future studies in order to calculate the holistic cost of practices through the SDI model framework.

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APPENDICES

APPENDIX A

The compiled list of 103 Native American tribal owned or tribal operated resorts in the

contiguous United States and Canada (500nations.com, 2018; Indian Country News,

2018; Gray, 2014).

Name	*Tribal Nation Ownership*	*Management Company or Tribe*	*City, State, Zip*
12 Tribes Resort Casino	Confederated Tribes of Colville Reservation	Confederated Tribes of Colville Reservation	Omak, WA, 98841
4 Bears Casino and Resort	Fort Berthold		New Town, ND, 58763
7 Clans First Council Casino Hotel	Otoe-Missouria		Newkirk, OK, 74647
Agua Caliente Resort Casino Spa Rancho Mirage	Agua Caliente Band of Cahuilla Indians		Rancho Mirage, CA 92270
Akwesasne Mohawk Casino Resort	Saint Regis		Hogansburg, NY 13655
Apache Casino Hotel	Fort Sill Apache		Lawton, Ok, 73501
Apache Gold Casino Resort	San Carlos Apache		San Crlos, AZ, 85550
Artesian Hotel, Casino, Spa	Chickasaw		Sulphur, OK 73086
Avi Resort and Casino	Fort Mojave		Laughlin, NV, 89029
Bad River Lodge and Casino	Chippewa		Ashland, WI 54806
Barona Resort and Casino	Barona of Capitan Grande of Mission		Lakeside, CA, 92040
Bay Mills Resort and Casino	Ojibwa		Brimley, MI, 49715
Buffalo Thunder Resort Casino	Pueblo of Pojoaque	Hilton	Santa Fe, NM 87506
Casino Del Sol Blooms	Pascua Yaqui Tribe		Tucson, AZ 85757

Chinook Winds Casino Resort	Siletz	SILETZ INDIAN	Lincoln City, OR 97367
Choctaw Casino Resort Durant	Choctaw		Durant, OK 74701
Choctaw Casino Resort Grant	Choctaw		Grant, OK 74738
Choctaw Casino Resort Pocola	Choctaw		Pocola, OK 74902
Chukchansi Gold Resort and Casino	Picayune		Coarsegold, CA 93614
Chumash Casino Resort	Santa Ynez Band of Chumash		Santa Ynez, CA 93460
Cities of Gold Hotel and Gaming Center	Pojoaque Pueblo		Santa Fe, NM 87506
Clearwater River Casino and Hotel	Nez Perce		Lewiston, ID 83501
Cocopah Casino Resort	Cocopah		Somerton, AZ 85350
Coeur D'Alene Casino Resort Hotel	Coeur d'Alenes		Worley, ID 83876
Colusa Casino Resort	Cachil Dehe Wintuns		Colusa, CA 95932
Cypress Bayou Casino and Hotel	Chitimacha Tribe		CHARENTON, LA 70523
Dakota Magic Casino and Hotel	SISSETON WAHPETON OYATE	SISSETON WAHPETON OYATE	HANKINSON, ND 58041
Downstream Casino Resort	Quapaw		Quapaq, OK, 74363
Feather Falls Casino and Lodge	Mooretown of Pomo		Oroville, CA 95966
Firekeepers Hotel and Casino	Nottawaseppi Huron Band of Potawatomi.		Battle Creek, MI 49014
Fortune Bay Resort and Casino	Bois Forte Band Chippewa		Tower, MN 55790
Foxwoods Resort Casino	Mashantucket Pequot Tribal Nation	Mashantucket Pequot Tribal Nation	Mashantucket, CT 06338
Golden Moon Hotel and Casino(Pearl River Resort, and Silverstar)	Mississippi Band of Choctaw		Philadelphia, MS 39350
Grand Portage Lodge and Casino	Minnesota Chippewa		Grand Portage, MN 55605
Grand Traverse Resort and Spa	Grand Traverse Band of Ottawa and Chippewa		Acme, MI 49610

Graton Resort and Casino	Federated of Graton Rancheria	Federated Indians of Graton Rancheria	Rohnert Park, CA 94928
Hard Rock Hotel and Casino	Seminole	Seminole	Hollywood, FL, 33314
Hard Rock Hotel and Casino	Seminole	Seminole	Tampa. FL, 33160
Hard Rock Hotel and Casino	Cherokee	Cherokee Nation	Catoosa, OK, 14015
Harrah's Cherokee Casino Resort	Cherokee	Caesars Entertainment	Cherokee, NC, 28719
Harrah's Cherokee Valley River Hotel and Casino	Cherokee	Caesars Entertainment	Murphy, NC 28906
Harrah's Resort Southern California	Rincon Band of Luiseno	Caesars Entertainment	Valley Center, CA 92082
Hon-Dah Resort-Casino	White Mountain Apache		Pinetop, AZ 85935
Ilani Casino Resort	Cowlitz		Ridgefield, WA 98642
Inn of the Mountain gods Resort and Casino	Mescalero Apache		Mescarero, NM, 88240
Island Resort and Casino	Potawatomi	Hannahville Indian Community	Harris, MI 49845
Isleta Resort and Casino	Pueblo		Albuqurque, NM, 87105
Jackpot Junction Casino Hotel	Lower Sioux		Morton, MN 56270
Jackson Rancheria Casino Resort	Miwuk		Jackson, CA 95642
Konocti Vista Resort, Marina & RV park	Big Valley Pomo		Lakeport, CA 95453
Kootenai River Inn Casino and Spa	Kootenai	Hagadone Hospitality Company	Bonners Ferry, ID 83805
KwaTaqNuk Resort Casino	Salish and Kootenai of Flathead		Polson, MT 59860
Lake of the Torches Resort Casino	Lac Du Flambeau Band Of Lake Superior Chippewa Indians		Lac Du Flambeau, WI 54538
Little Creek Casino Resort	Squaxin		Shelton, WA 98584
Little River Casino Resort	Ottawa and Chippewa		Manistee, MI 49660
Lucky Eagle Casino & Hotel	Chehalis		Rochester, WA 98579
Miccosukee Resort and gaming	Miccosukee		Miami, FL 33194
Morongo Casino Resort Spa	Morongo Mission		Cabazon, CA 92230
Mystic Lake Casino Hotel	Shakopee Mdewakanton Sioux Community	SMSC Gaming Enterprise	Prior Lake, MN 55372

North Star Mohican Casino Resort	Stockbridge-Munsee Band of Mohican		Bowler, WI 54416
Northern Quest Resort and Casino	Kalispel		Airway Heights, WA 99001
Northern Waters Casino Resort	Lac Vieux Desert Band Chippewa		Watersmeet, MI 49969
Pala Casino Spa Resort	Papa of Luiseno Mission		Pala, CA 92059
Paragon Casino Resort	Tunica-Biloxi Tribe		Marksville, LA 71351
Pechanga Resort & Casino	Pechanga Band of Luiseño Indians		Temecula, CA 92592
Prairie's Edge Casino Resort	Upper Sioux		Granite Falls, MN 56241
Prairie's Knights Casino and Resort	Standing Rock		Fort Yates, ND 58538
Quechan Casino Resort	Quechan of Fort Yuma		Winterhaven, CA 92283
Quinault Beach Resort and Casino	Quinault		Ocean Shores, WA 98569
Redwood Hotel Casino	Yurok		Klamath, CA 95548
River Cree Resort and Casino	Enoch Cree		Edmonton, AB T7X 3Y3, Canada
Robinson Rancheria Resort and Casino	Robinson Pomo		Nice, CA 95464
Sandia Resort and Casino	Pueblo		Albuqurque, NM, 87113
Santa Claran Hotel Casino	Santa Clara		Española, NM 87532
Seneca Allegany Casino and Hotel	Seneca		Salamanca, NY 14779
Seneca Niagara Casino and Hotel	Seneca		Niagara Falls, NY 14303
Seven Feathers Casino Resort	Cow Creek		Canyonville, OR 97417
Seven Winds Casino, Conference, Resort	Lac Courte Oreilles Tribe		Hayward, WI 54843
Shooting Star Casino Hotel	White Earth Nation		Mahnomen, MN 56557
Silver Star Hotel and Casino	Mississippi Band of Choctaw Indians		Philadelphia, MS 39350
Skagit Valley Casino Resort	Upper Skagit	Harrah's Entertainment	Bow, WA 98232

Sky Dancer Hotel and Casino	Turtle Mountain Band of Chippewa		Belcourt, ND 58316
Sky Ute Casino Resort	Southern Ute Indian Tribe		Ignacio, CO 81137
Soaring Eagle Casino and Resort	Ziibiwig		Mount Pleasant, MI, 48858
Spirit Ridge (Nk'MIP) Resort	Osoyooss	Hyatt	Osoyoos, BC V0H 1V6, Canada
Spirit Lake Casino and Resort	Spirit Lake Tribe		St Michael, ND 58370
St. Eugene Golf Resort	Ktunaxa, Chippewas, Rama, Samson Cree	Ktunaxa, Chippewas, Rama, Samson Cree	BC V1C 7E5, Canada
Tachi Palace Hotel and Casino	Tachi-Yokut Tribe		Lemoore, CA 93245
Talking Stick Resort	Pima-Maricopa		Scottsdale, AZ, 85256
Tamaya Resort and Spa	Pueblo	Hyatt	Santa Ana Pueblo, NM, 87004
The Mill Casino Hotel	Coquille		North Bend, OR 97459
Treasure Island Resort and Casino	Prairie Island		Welch, MN 55089
Turning Stone Resort Casino	Oneida		Veronsa, NY, 13478
Turtle Creek Casino and Hotel	Grand Traverse Band of Ottawa and Chippewa		WILLIAMSBURG, MI 49690
We-Ko-Pa Resort and Conference Center	Fort McDowell Yavapai Nation	Fort McDowell Destination & Enterprises	Scottsdale, AZ, 85256
Wild Horse Pass (Gala River)	Gala River	Marriott	Chandler, AZ, 85226
Wildhorse Resort and Casino	Tribes of the Umatilla Indian		Pendleton, OR 97801
Wind Creek Atmore	Poarch Creek Indian	Wind Creek Hospitality	Atmore, AL 36502
Wind Creek Montgomery	Poarch Creek Indian	Wind Creek Hospitality	Montgomery, AL 36117
Wind Creek Wetumpka	Poarch creek Indian	Wind Creek Hospitality	Wetumpka, AL 36092
Winstar Casino and Resort	Chickasaw		Thackerville, OK 73459
Yakama Nation Legends Casino	Yakama		Toppenish, WA 98948

APPENDIX B

Cohen's Kappa calculation tables for each of the four resorts.

Foxwoods Resort Casino Cohen's Kappa   **0=Not Match**
                                             1=Match
            Resorts Overall Cohen's Kappa   **0.72**

Theme 1: Land and Sovereignty

		Researcher			
		0	1		
Peer	0	10	0	10	56%
	1	2	6	8	44%
		12	6	18	
		67%	33%		

Pr(a)	0.89	Observed Agreement
Pr(e.)	0.52	Probability based on Chance
k	0.77	Cohen's Kappa Reliability

Theme 2: Natural Environment

		Researcher			
		0	1		
Peer	0	7	0	7	33%
	1	4	10	14	67%
		11	10	21	
		52%	48%		

Pr(a)	0.81	Observed Agreement
Pr(e.)	0.49	Probability based on Chance
k	0.63	Cohen's Kappa Reliability

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Theme 3: Institutions

		Researcher			
		0	1		
Peer	0	6	0	6	60%
	1	1	3	4	40%
		7	3	10	
		70%	30%		

Pr(a)	0.90	Observed Agreement
Pr(e.)	0.54	Probability based on Chance
k	0.78	Cohen's Kappa Reliability

Theme 4: Technology

		Researcher			
		0	1		
Peer	0	5	0	5	45%
	1	1	5	6	55%
		6	5	11	
		55%	45%		

Pr(a)	0.91	Observed Agreement
Pr(e.)	0.50	Probability based on Chance
k	0.82	Cohen's Kappa Reliability

Theme 5: Economics

		Researcher			
		0	1		
Peer	0	6	3	9	53%
	1	0	8	8	47%
		6	11	17	
		35%	65%		

Pr(a)	0.82	Observed Agreement
Pr(e.)	0.49	Probability based on Chance
k	0.65	Cohen's Kappa Reliability

Theme 6: Human Perception, Activity and Behavior

		Researcher			
		0	1		
Peer	0	5	3	8	42%
	1	0	11	11	58%
		5	14	19	
		26%	74%		

Pr(a)	0.84	Observed Agreement
Pr(e.)	0.54	Probability based on Chance
k	0.66	Cohen's Kappa Reliability

Pechanga Resort Casino Cohen's Kappa　　　　　**0=Not Match**
1=Match

Resorts Overall Cohen's Kappa　　　　　**0.81**

Theme 1: Land and Sovereignty

		Researcher			
		0	1		
Peer	0	10	0	10	71%
	1	0	4	4	29%
		10	4	14	
		71%	29%		

Pr(a)	1.00	Observed Agreement
Pr(e.)	0.59	Probability based on Chance
k	1.00	Cohen's Kappa Reliability

Theme 2: Natural Environment

		Researcher			
		0	1		
Peer	0	4	0	4	36%
	1	1	6	7	64%
		5	6	11	
		45%	55%		

Pr(a)	0.91	Observed Agreement
Pr(e.)	0.51	Probability based on Chance
k	0.81	Cohen's Kappa Reliability

Theme 3: Institutions

		Researcher			
		0	1		
Peer	0	6	0	6	60%
	1	1	3	4	40%
		7	3	10	
		70%	30%		

Pr(a)	0.90	Observed Agreement
Pr(e.)	0.54	Probability based on Chance
k	0.78	Cohen's Kappa Reliability

Theme 4: Technology

		Researcher			
		0	1		
Peer	0	7	0	7	64%
	1	1	3	4	36%
		8	3	11	
		73%	27%		

Pr(a)	0.91	Observed Agreement
Pr(e.)	0.56	Probability based on Chance
k	0.79	Cohen's Kappa Reliability

Theme 5: Economics

		Researcher			
		0	1		
Peer	0	4	0	4	36%
	1	1	6	7	64%
		5	6	11	
		45%	55%		

Pr(a)	0.91	Observed Agreement
Pr(e.)	0.51	Probability based on Chance
k	0.81	Cohen's Kappa Reliability

Theme 6: Human Perception, Activity and Behavior

		Researcher			
		0	1		
Peer	0	5	3	8	42%
	1	0	11	11	58%
		5	14	19	
		26%	74%		

Pr(a)	0.84	Observed Agreement
Pr(e.)	0.54	Probability based on Chance
k	0.66	Cohen's Kappa Reliability

Hard Rock Resorts Cohen's Kappa   **0=Not Match**

1=Match

Resorts Overall Cohen's Kappa   **0.86**

Theme 1: Land and Sovereignty

		Researcher			
		0	1		
Peer	0	4	0	4	36%
	1	1	6	7	64%
		5	6	11	
		45%	55%		

Pr(a)	0.91	Observed Agreement
Pr(e.)	0.51	Probability based on Chance
k	0.81	Cohen's Kappa Reliability

Theme 2: Natural Environment

		Researcher			
		0	1		
Peer	0	2	1	3	25%
	1	0	9	9	75%
		2	10	12	
		17%	83%		

Pr(a)	0.92	Observed Agreement
Pr(e.)	0.67	Probability based on Chance
k	0.75	Cohen's Kappa Reliability

Theme 3: Institutions

		Researcher			
		0	1		
Peer	0	4	0	4	29%
	1	0	10	10	71%
		4	10	14	
		29%	1%		

Pr(a)	1.00	Observed Agreement
Pr(e.)	0.09	Probability based on Chance
k	1.00	Cohen's Kappa Reliability

Theme 4: Technology

		Researcher			
		0	1		
Peer	0	4	0	4	40%
	1	1	5	6	60%
		5	5	10	
		50%	50%		

Pr(a)	0.90	Observed Agreement
Pr(e.)	0.50	Probability based on Chance
k	0.80	Cohen's Kappa Reliability

Theme 5: Economics

		Researcher			
		0	1		
Peer	0	3	0	3	30%
	1	1	6	7	70%
		4	6	10	
		40%	60%		

Pr(a)	0.90	Observed Agreement
Pr(e.)	0.54	Probability based on Chance
k	0.78	Cohen's Kappa Reliability

Theme 6: Human Perception, Activity and Behavior

Peer		Researcher			
		0	1		
	0	4	0	4	29%
	1	0	10	10	71%
		4	10	14	
		29%	71%		

Pr(a)	1.00	Observed Agreement
Pr(e.)	0.59	Probability based on Chance
k	1.00	Cohen's Kappa Reliability

Spirit Ridge Resort Cohen's Kappa   **0=Not Match**
1=Match

Resorts Overall Cohen's Kappa   **0.81**

Theme 1: Land and Sovereignty

Peer		Researcher			
		0	1		
	0	5	0	5	42%
	1	2	5	7	58%
		7	5	12	
		58%	42%		

Pr(a)	0.83	Observed Agreement
Pr(e.)	0.49	Probability based on Chance
k	0.68	Cohen's Kappa Reliability

Theme 2: Natural Environment

Peer		Researcher			
		0	1		
	0	7	0	7	39%
	1	1	10	11	61%
		8	10	18	
		44%	56%		

Pr(a)	0.94	Observed Agreement
Pr(e.)	0.51	Probability based on Chance
k	0.89	Cohen's Kappa Reliability

Theme 3: Institutions

Peer		Researcher			
		0	1		
	0	3	0	3	33%
	1	0	6	6	67%
		3	6	9	
		33%	67%		

Pr(a)	1.00	Observed Agreement
Pr(e.)	0.56	Probability based on Chance
k	1.00	Cohen's Kappa Reliability

Theme 4: Technology

Peer		Researcher			
		0	1		
	0	2	0	2	20%
	1	1	7	8	80%
		3	7	10	
		30%	70%		

Pr(a)	0.90	Observed Agreement
Pr(e.)	0.62	Probability based on Chance
k	0.74	Cohen's Kappa Reliability

Theme 5: Economics

Peer		Researcher			
		0	1		
	0	8	0	8	47%
	1	1	8	9	53%
		9	8	17	
		53%	47%		

Pr(a)	0.94	Observed Agreement
Pr(e.)	0.50	Probability based on Chance
k	0.88	Cohen's Kappa Reliability

Theme 6: Human Perception, Activity and Behavior

Peer		Researcher			
		0	1		
	0	4	0	4	33%
	1	2	6	8	67%
		6	6	12	
		50%	50%		

Pr(a)	0.83	Observed Agreement
Pr(e.)	0.50	Probability based on Chance
k	0.67	Cohen's Kappa Reliability

APPENDIX C

This is an example from the code book used for this thesis.

Foxwoods Resort Casino Sustainable Practices						
	Land and Sovereignty	Natural Environment	Institutions	Technology	Economics	Human Perception, Activity, and Behavior
Anti Poverty Program					x	
Artifact replica productions				x		x
Arts and crafts display and production by indigenous individuals					x	x
Benefit events					x	x
Child and elder care			x			x
Co-creation of exhibits with other indigenous tribes	x	x	x			x
Co-generating heat and power plant – low and clean emissions	x			x	x	
Complementary shuttles					x	x
Comprehensive healthcare	x					
Culture of volunteerism and community engagement		x	x			x
Donations and program sponsorship					x	
Electric car charging stations				x		x
Employee emergency assistance funds	x					
Employee short term counselling						x
Engaging community through volunteering	x					x
Farm to table food					x	x

Fast Emergency Services	x					x
Financial and legal services						x
Gray water reuse		x				
Green roofing		x		x		
Infrared closed captions, multisensory displays				x		x
In-kind contribution	x				x	x
Interactive Villages/Exhibits	x		x			
Life-long disability services	x					
Local building material					x	
Low budget housing			x		x	
On-demand heating and cooling		x		x		
Opening education on finances, leadership, academic, and cultures			x			
Partnership with other governments	x		x			
Rain harvesting	x	x		x	x	
Reclaiming waterways projects	x	x				
Recycling – wood pallets, glass, metals, plastics, cardboard, paper, cartons, crates, kegs, cooking oils, cigarette butts		x				
Ride share programs					x	
SMART architecture to interact with environment		x	x	x		
Swamp restoration		x				
Tuition reimbursement					x	x
Video documentation of tribal histories, languages and culture	x			x		
Woodland with sustainable timer management	x	x		x		

Theme 1	
Co- Creation of Exhibits	Community Partner
Volunteer culture	Community Partner
Emergency services	Community Partner
Partner with governments	Community Partner
In-Kind contributions	Charity
Benefit Events	Charity
Volunteer culture	Charity
Interactive village and exhibits	Eco-Tourism
SMART Architecture	Eco-Tourism
Co-Generating heat and Power	Self-reliance
Employee Emergency Assistance	Self-reliance
Comprehensive Health Care	Self-reliance
Life-long Disability	Self-reliance
Rain Harvesting	Water
Reclaiming Waterway	Water

Theme 2	
Green Roofing	Agriculture
Woodland and Timber forestry	Agriculture
Co-Generating heat and power	Power
Gray Water	Recycling
Extensive recycling program	Recycling
ON-demand heat and cooling	Architecture
Smart Architecture	Architecture
Gray Reuse	Water
Rain Harvest	Water
Reclaim waterways	Water
Swamp restoration	Water

Theme 3	
CO-Creations of Exhibits	Partner
Open education	Partner
interactive village	Education
open education	Education
government partnerships	Government
Tribal DMV	Government
Emergency Services	Government
Co-Creation of exhibits	Government
Low budget housing	Housing
recycled material into home products	Housing
Open education	Leadership

Theme 4	
Green Roof	Agriculture
Woodland and Forest timber	Agriculture
Artifact recreation	Communication
Infrared closed Caption	Communication
Videos on culture and languages	Communication
go-generating heat and power	Energy
Electric Car Station	Architecture
On demand Heat and Cooling	Architecture
Rain Harvesting	Architecture
SMART Architecture	Architecture
Green Roof	

Training programs	
Volunteer culture	**Volunteerism**

Rain Harvesting	**Water**

Theme 5	
Farm to Table	**Agriculture**
Local/Indigenous arts and crafts	**Art**
IN kind contributions	**Charity**
Donations	
Anti-poverty programs	
Co-Generating heat and power	**Energy**
water harvest	
farm to table	**Local use**
building material	
complementary shuttles	**Transportation**
rideshare programs	

Theme 6	
Infrared closed caption	**Communication**
Co-creation of exhibits	
artifact replication	**Education**
local/indigenous crafts	
Tuition Reimbursement	
employee counselling	**Medical**
Fast emergency service	
family car	**Personal Care**
farm to table	
financial and legal services	
complementary shuttles	
in-kind contributions	**Volunteer**
benefit events	
community partnerships	

Spirit Ridge (NK'Mip) Resort Casino Sustainable Practices						
	Land and Sovereignty	**Natural Environment**	**Institutions**	**Technology**	**Economics**	**Human Perception, Activity, and Behavior**
Bio-degradable to go containers		x				x
Buildings exceed earthquake codes, rammed earth and rebar foundations, reclaimed materials, expansion possible without much change	x		x	x		
Bulk shower dispensers		x				x
Charity donations					x	x
Disaster relief funds					x	x
Education programs finance, family needs, health and wellness, career developments and environmental conservations	x		x	x	x	
Eliminates plastic silverware, straws and usage		x				x
Environmental database for current and future needs	x			x		
Ethical supply chain	x		x		x	
Farm to table		x			x	x
Financial assistance for education, housing, and family	x		x		x	
Gray water in irrigation		x		x	x	
Green roofs		x	x			
Hand pick grapes in vineyard	x				x	x
Local artisan merchandise		x		x		x
Local damaged wood in building accents		x	x		x	x
Low flow water fixtures		x				
Maximize ambient lighting		x	x			

Minimum herbicides and pesticides		x				
Multi-sensory exhibits and theaters			x	x		x
Native Landscape and trails		x				x
Native Plants and animal restoration programs - Rattlesnake Research Program	x	x	x	x		
Preplan future expansion for sustainable growth and land use	x		x			
Radiant heating and cooling pipes	x	x	x	x		
Rebuild or renovate SMART			x	x		
Water bottle refill stations		x				x
Water reclamation projects – surface and subsurface	x	x		x		

Theme 1	
building over codes	
environmental database	
	Eco-Tourism
Ethical Supply Chain	
Preplan future expansion	
Financial Assistance programs	
Education programs	Self-reliance
Hand picking Grapes	
Radiant heat and cooling pipes	
	Water
Water Reclamation Projects	

Theme 2	
Farm to Table	
Green Roof	Agriculture
Minimal herp and pesticides	
Bio-degradable to go's	
Bulk Shower containers	Recycling
Eliminates Plastics	
Damaged wood in buildings	
Maximize Ambient lighting	Architecture
Plant and animal restoration grogram	
Gray Water reuse	
Low Flow features	Water
Radiant heat and cool pipes	

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Water reclamation projects	

Theme 3

Finance, family education programs	**Education**
Tuition Reimbursement	
multi sensory exhibits	
exceed Building codes	**Government**
Ethical Supply Chain	
future expansion plans	
Green Roofing	**Housing**
Maximizing lighting	
radiant heating a cooling	
rebuilds or renovations	

Theme 4

Hand Picking Grapes	**Agriculture**
Education programs	**Communication**
Environmental database	
Local artisans	
Multi sensor exhibits	
Native Plants and animal program	
Exceeding codes	**Architecture**
Radiant heat and cooling	
Rebuild or renovate	
Gray water	**Water**
Water reclamation projects	

Theme 5

Had Picking Vineyard	**Agriculture**
Farm to table	
Gray water for irrigation	
Donations	**Charity**
disaster funds	
Education Programs on finance	
tuition reimbursements	
Ethical Supply chain	**Local use**
Damaged wood motifs	

Theme 6

Farm to table	**Communication**
Hand picking grapes	
Local Artisans	
Local Accents	
Charity Donations	**disaster Relief**
disaster Fund for locals	
Multi sensory systems	**Education**
Bulk Showers	**Personal Care**
Bio degradable	
NO plastics	
Water bottle stations	**Water**

VITA

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