



Creating sustainable tourism ventures in protected areas: An actor-network theory analysis



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HIGHLIGHTS

- Phases of the actor-network theory were deployed for creating a sustainable tourism venture.
- Principal actor's innovativeness and adaptability are associated with the success of a sustainable tourism venture.
- Stakeholder mobilization are essential to overcome resistance to change.

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ABSTRACT

Sustainable tourism is a growing segment of tourism worldwide. If such ventures are to thrive in society, we have to learn more about how they are created and sustained. Specifically, one has to explore, not only the attributes of the founders, but the actions that they deploy in creating such ventures. This paper investigated how a principal actor created a sustainable tourism business in the Amazon forest. The analysis showed that the actor deployed the phases that were proposed by actor-network theory (ANT) framework. Interestingly, the study found that the actor created her network by using what we called an orchestration modus instead of the unification approach that is widely known in ANT literature. Finally, the analysis showed that the ability of the principal actor to learn new things, to adapt to change and her acts of creating spaces for global experts played a significant role in her success.

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1. Introduction

Over the past 30 years, conservationists have looked to sustainable tourism, also known as eco-tourism, as a win-win strategy for protecting the environment while also meeting human needs (Stronza & Pégas, 2008). In this paper, the words eco-tourism and sustainable tourism would be used interchangeably. The World Conservation Union defines eco-tourism as follows: It is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy, study and appreciate nature, while promoting conservation through low negative impact, and a beneficial socio-economic involvement for the local populations (Ceballos-Lascurain, 1996). Given the expectation that sustainable tourism can contribute to conservation, it has often been viewed as a means for protecting areas such as rain forests and private reserves (Ceballos-Lascurain, 1996). Brazil has 40% of the world's

tropical forests (Peres, 2005) and 13% of the world's biodiversity (Lewinsohn & Prado, 2005). The presence of a huge inventory of natural resources is one of the reasons why conservation-friendly policies were enacted in Brazil as a tool for conserving forests. For example, an effort was made to increase the number of private reserves in the country. Private reserves are private lands, which are owned, funded and operated by a private investor or syndicate, retained predominantly in undeveloped state, and managed for conservation and minimum impact activities, such as nature-based tourism (Pasquini, 2007; Wallace & Pierce, 1996). Private reserves generate income through different activities including, high-end wildlife viewing, captive breeding, hunting, adventure experiences or education programs (Buckley, 2009).

The focus of the present study is to understand how a private individual successfully integrated her passion for the conservation of forests with her desire to become a business owner. The case study is unique because it occurred in the context of the Amazon forests where citizens typically exploit forests to make a living. In this context, it was not uncommon for people to view the goals of

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achieving economic advancement and that of forest conservation as being diametrically opposed. The dominant approach of the Brazilian government, over decades, has been to provide incentives that will encourage landowners to own forests without using them for economic activities. For example, regulations, such as the private reserves law, were passed to encourage landowners to become involved in the conservation of privately owned forests in Brazil (Souza, 2012). The linking of sustainable tourism with forest conservation is an interesting approach because it suggests that conservation and economic growth need not be antithetical ideas.

There two reasons why the current study is needed and relevant. First, there are likely potential economic advantages in developing the sustainable tourism sector in Brazil. For example, the experience of a few countries have demonstrated that private forests, if developed and marketed as ecotourism destinations, could generate economic income from tourists (Kirkby et al., 2010). While the economic opportunity seems to be clear, there is evidence which confirms that forests in Brazil are still largely unexplored from the point of view of sustainable tourism readiness. For instance, in Brazil, less than half (31 out of 67) designated national parks are opened for tourist visits (ICMBio, 2013). Furthermore, only 18 out of the 31 designated parks have proper tourism infrastructures (Medeiros, Young, Pavese, & Araujo, 2011). Contrast these facts with the statistics that 156 million domestic and 5.5 million international tourists visit Brazilian destinations annually (Ministry of Tourism [MTUR], 2013). Therefore, from a domestic economy perspective, there is a reason to explore how sustainable tourism works.

Second, there are also scientific reasons to conduct this study. For example, Sharpley (2009) questioned the degree to which sustainable tourism has been implementation in practice. Similarly, Kruger (2005) argued that researchers need to investigate the conditions under which eco-tourism enhances conservation (Kruger, 2005). After a comprehensive review of sustainable tourism in literature, Buckley (2012) concluded that, with the exception of very few instances (Maxim, 2016), the tourism industry studies strongly focused on economic aspects of tourism, while devoting less little attention to social and environmental aspects of tourism. Furthermore, the roles that champions play during the implementation of sustainable tourism are not yet fully understood (Liburd & Edwards, 2010). Similarly, several authors have noted that the study of sustainable tourism is still a less researched area (Dodds, & Butler, 2010; Farsari, Butler, & Szivas, 2011; Liburd & Edwards, 2010). Hence, there seems to be a disparity between the theory and practice of sustainable tourism (Muangasame & Mc Kercher, 2015; Waligo, Clarke, & Hawkins, 2013), and seeming contradictions between stakeholder interests, governments policies, and structures (Krutwaysho & Bramwell, 2010). Araújo and Bramwell (2002) defined stakeholders by their geographic level, as local, regional and national stakeholders. Hence, this study responds to these calls for research of the sustainable tourism phenomenon (Farsari et al., 2011).

Increasingly, the actor-network theory (ANT) has been adopted as an important analytical framework for tourism research (Arnaboldi & Spiller, 2011; Franklin, 2004; Johannesson, 2005; Van der Duim & Van Marwijk, 2006; Van der Duim, 2007). ANT was adopted as the most appropriate for this study because it focuses on the relationships between non-humans and humans, which is central to the accomplishment of a sustainable tourism ventures. Furthermore, prior studies have shown that ANT is useful for understanding tourism phenomena. Actor-network theory (ANT), proposes that a network's outcomes are linked to the collective interactions between its actors and non-human entities. It posits that some actors act as translators when they create heterogeneous associations between human- and non-human entities. A network

is created by a chain of actions (Callon & Law, 1997; Latour, 2005), during which humans and non-humans are interested and enrolled. The understanding of the processes that a translator deploys to create a network is helpful for understanding how the investigated phenomenon occurs. One of the primary goals of this research is explore and expose the actions that the founder of a sustainable tourism venture used to build her venture. Specifically, the study will investigate if the phases of the ANT framework were deployed when the principal actor founded her venture. In this way, the study will explore *what* the principal actor did to create the venture. However, the analysis will also seek to uncover *why* the actions worked. Specifically, the analysis will explore decisions of the actor and the contributions of the members of the network that made the venture a success.

The rest of the paper is organized as follows. The next section will highlight the actor-network theory and its link to sustainable venture development. The paper will then present the context of the study and followed by a synopsis of the actor and the venture. The paper will then present the case study methodology adopted for the research and the results of this study. Lastly, the work will discuss the results and highlight its main conclusions and future research directions.

2. Actor-network theory and sustainable tourism venture development

The ANT theoretical framework was developed to help us understand how (new/disputed) scientific knowledge becomes closed and new actions and methods become accepted and adopted. The theory involves the investigation of the actions that actors use to mobilize allies and resources, and to construct heterogeneous networks (Garrety, 1997; Latour, 1987).

For example, the actor-network theory approach enabled Latour (1983) to unveil the role that enrollment played in the success of Pasteur's scientific career in 1881. Latour's (1983) work highlighted how Pasteur convinced other actors that his work, and his work alone, would provide a cure to a specific disease. Callon (1986) also used of the actor-network approach in a study of the practices of the scallops industry in St. Brieuc Bay. He used the actor-network theory analysis to understand how marine biologists enrolled the local fishermen and scientific colleagues in their attempt to preserve a population of scallops. The ANT approach was also used to explain why the network failed once a few of the actors departed from it (Callon, 1986). Rodger, Moore, and Newsome (2009) found that the actor-network translation phases of problemisation, intersement, enrolment and mobilization were helpful for understanding the formation of a wildlife tourism research network and to understand the disbanding of the network. Paget, Dimanche, and Mounet (2010) used the actor-network theory for understanding the evolution of innovation in a French ski resort. The researchers found that the leader played the role of translator, by interesting and enrolling actors for the project.

According to ANT, a volitional actor, also called an actant, could be any agent, collective or individual, who can associate with or dissociate from other agents. Actors enter into networked associations which define them, name them, and provide them with substance, action, intention and subjectivity (Ritzer, 2005). Networks consist of processes and activities that are performed by actors and relationships between actors. A translation is the process of establishing identities and the conditions of interactions among actors (Ritzer, 2005). During the translation process the principal/focal actor works to transform heterogeneous entities into an unified network. Such a network could consist of people, organizations, machines, animals and other entities, who are unified behind a single/common mission (Latour, 1996; Law, 1991).

Translation is an ongoing process which is never permanent and which may fail in some circumstances. The ANT perspective proposes that the power of principal/focal actors consists in their relations and on their ability to use translation to engage others to unify behind a mission, not in the characteristics of the actors themselves (Latour, 1986).

Rodger et al. (2009) identified six phases of translation. In the problemisation phase, the focal actor identifies the nature of a problem and identifies both human and nonhuman actors (Law, 1986). To be effective, the actor must define the problem in a way that the identified actors would find compelling (Woods, 1997). The next phase is called the Obligatory Passage Point (OPP). It is the phase in which the actor defines the non-negotiable aspects of the idea/vision/approach that she/he hopes to embrace in resolving the problem. The third phase is called the intersement. It is the phase in which the actor communicates his/her solution ideas/vision and the obligatory passage point (OPP) to other potential actors. The principal actor tries to convince them that his/her vision/approach is the better way forward (Kitchen, 2000). This phase is likely to reveal expected/unexpected opposition/resistance to the vision. In phase 4, the enrollment of actors occurs. Enrollment occurs when potential participants embrace and adopt and enroll to help achieve the mission and OPP of a principal actor. In this phase, the persuaded actors communicate and negotiate with the principal actor about what they could contribute towards the achievement of the obligatory passage point vision/purpose. Hence, the scope, nature/content and duration of collaborations are discussed and the potential outcomes are communicated. In phase 5, the mobilization of the alliances/networks occurs. Typically, this phase marks the beginning of the execution of actions that were negotiated in phase 4. Black-boxing is the last phase (phase 6). It is during this phase that network institutionalizes practices and actions that have become essential to its identity and performance of the network (Fountain, 1999). These translation phases will be used to analyze the case study that is explored in this paper.

3. Understanding the context of the case study

Brazil is home to the largest tropical forests in the world. Due to the massive land area covered by the forests, so the government enacted the Forest Code of 1934 to protect forests. The so-called “Forest Protection” law permitted owners of private lands to designate portions of such properties as private reserves. Furthermore, such private reserves were excluded from taxation. When the law was updated in 1965, landowners were empowered to designate their private lands as perpetual reserve (conservation) area (Schiavetti, Oliveira, Lins, & Santos, 2010). Brazilian laws allowed private landowners to exclude up to 20% of their forests from development. The exclude-able area could be as high as 35% of the forest area owned by landowners in the Savannah area (northern region of Brazil) and as high as 80% in the Amazon forest area (Alston & Mueller, 2007). Though, on the surface, these laws seem very tough, they were not seriously enforced. Unfortunately, the government lacked the enforcement resources to act when farmers and ranchers encroached on forests that had been designated as private reserves (Alston & Mueller, 2007). For thirty years, the land reserves law remained in effect, but it was not enforced. Hence, deforestation continued at an unabated rate in different areas of Brazil.

In addition to its effort to encourage conservation, the Brazilian government also started a campaign to motivate people to move into uninhabited forest areas in northern Brazil. This was the context in 1976, when Ariosto Da Riva abandoned his work, as a diamond trader in São Paulo, sold all he had and purchased 800,000 ha of rainforest on the southern edge of the state of Mato

Grosso. Ariosto distributed portions of the land to 150,000 settlers and founded Alta Floresta. The town's name literally means, “High Forest”, a tribute to the forests (Rathbone, 2013). Fig. 1 shows the location of Alta Floresta within the Amazon forest. The town was 800 km from the closest city of Cuiabá. Ariosto's goal was to create a community in which agriculture was practiced in a way that was compatible with the preservation of the Amazon forest. He envisioned Alta Floresta as a model town that would be based on ecological practices and sustainable farming.

Unfortunately, in the early 1980s, the prospects of “making a living” via agriculture in Alta Floresta was disrupted by a significant drop in the prices of commodities. In addition, a wave of gold prospecting started in the Amazon forests. The gold rush lasted for four years and it attracted people away from agriculture. Sadly, the gold prospecting activities caused serious harm to the forests of Alta Floresta. Many of the people who remained in the region turned to the ranching business. The former small-scale farmers became meat producers and those with larger farms became cattle ranchers (Hamilton, 1992). Ariosto's dream was not realized before he died. By the second half of the 1980s, the southern Amazon region had experienced such an alarming level of deforestation that the issue could no longer be ignored (Hirakuri, 2003).

In the 1990s, the Brazilian Federal government enacted the Decree nº 98,914, also called the Private Natural Heritage Reserves (RPPN) Law, which was aimed at extending the rights of land owners to convert larger portions of their lands into private reserves. This law prohibited economic activities, such as hunting and agriculture, from occurring on private reserves. Under the RPPN program the use of a private reserve was restricted to research, environmental education and eco-tourism — forever. The transformation of land into an RPPN was a voluntary act of the landowner. The portion of the land that was declared as the RPPN would enjoy the protection of the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA). Before authorizing the designation of a land as an RPPN, an IBAMA official had to certify that the forests on the land were in their natural primitive state or in a state of recuperation (Schiavetti et al., 2010).



Fig. 1. Amazon forests around Alta Floresta.

4. Synopsis: introducing the entrepreneur and the venture

Vitória Da Riva was born in 1945. She lived with her father in the southern Amazon forests in the mid-seventies. She left the forests to be educated in the city. For a few years, she worked as a teacher. She resigned her job and stayed at home for several years to raise her children. In her forties, and with five grown children, Vitória was ready to enter the employment market again. She had a passion to go into business for herself. However, she was also very concerned about the issue of deforestation. Given her awareness of the harm that was being caused by deforestation in the Amazon, Vitória Da Riva decided to do something that would combine conservation and business. In the early 1990s, she took her own funds and bought land in the Amazon forests near the bank of the Cristalino River. She chose the location because the Cristalino river was not adversely affected by the Gold Rush (Sabino, 2012).

At the time when Vitória started her initiative, there were no local conservation agencies in the state of Mato Grosso. Vitória's search for environmentally-sustainable solutions brought her in contact with agencies that were promoting sustainable tourism. In 1990, she partnered with International Conservation (IC), to introduce the first course on strategic planning for ecotourism in Brazil. IC selected and equipped leaders throughout Brazil to disseminate the ecotourism course using a train-the-trainer methodology. Over 800 persons took the course and Vitória became the "disseminator" of the program for the northern region of Brazil.

However, she knew very little about eco-tourism and business. To equip herself, in 1992, she attended conferences, such as the United Nations Convention on Sustainability that was held in Rio, Brazil. Also, she went back to college to take business courses and to earn a business degree. She also attended workshops that were designed for people interested in eco-tourism. All these encounters and training reinforced her belief that it was possible to create an eco-tourism venture in Alta Floresta. She founded a very simple hotel in 1992. Vitória faced several challenges at the beginning of her venture. First, the concepts of eco-tourism were not universally known in Brazil. Furthermore, the town of Alta Floresta was not included on State-issued tourism maps. Also, the roads, airport connections and infrastructure of Alta Floresta were not well developed. She started the work anyway, because she believed it could be done. Finally, since the region was not known for tourism, the national tourism agents refused to promote her hotel and its programs. Given these obstacles, she established her own local tourism agency (called Floresta Tour). Then she travelled to different international conferences to promote her hotel and programs.

The people of Alta Floresta thought that she was crazy trying to develop an eco-tourism business in the forest. Some even argued that her ideas were selfish. They thought that her focus on conservation would endanger the ranching, logging and farming businesses. In 1997, Vitória converted the forests within her private land into a private reserve. This action made her the protector of a private reserve, which was about 700-ha in size (CJL website, 2016). In 1997, Vitória renovated and modernized her first hotel.

5. Study methods

5.1. Data gathering and preparation

A single case study methodology (Yin, 2003) was used for the analysis because of the uniqueness of the case. The case was unique because it involved the investigation of how a private individual championed the creation of a private reserve and an ecolodge in a specific context. The use of a single case study for the current study is not unique. Cutcher (2014) used a single case study when

investigating the renewal of a bank. Also, extant studies have used a single case study for investigations of the tourism context (Paget et al., 2010; Ryan & Stewart, 2009, pp. 287–301).

The procedure that I used to identify participants was purposive. Namely, people who were likely to be knowledgeable about the venture were invited to participate in the study. A snowball sampling strategy was used to identify interviewees (Babbie, 2001). I used a snowball sampling strategy in this case because this study focused on a particular set of individuals who had supported a particular actor (Vitória) during her development of a sustainable tourism venture in a specific context. Snowball sampling is appropriate for this project because the members of the targeted group are more likely to be known by those in the network than those outside it (Morgan, 2008).

After I had conducted an initial review of literature, I identified and noted down the names of people who were likely to be knowledgeable about the venture. The first person who was contacted was the principal actor. After she agreed to allow a study of her venture, invitations were sent out to those whose names had been noted down. The candidates were invited to participate in the study. At the end of the interview with the principal actor, she was asked if she knew people or materials that could help understand the sustainable tourism venture. A focused interview technique was used for this the data gathering process. This enabled the interviewees to expand on their responses based on their personal experiences while the retaining a structure/flow of the interview (Frankfort-Nachmias, & Nachmias, 1996).

A virtual (Skype) face-to-face interview was held with the principal actor which lasted about 100 min. The interview was recorded and transcribed. Three other invitees agreed to be interviewed. These interviews executed were conducted by email. The interview questions, in English and Portuguese, were emailed to the respondents. Their responses were returned in Portuguese or English. The Portuguese responses were translated into English. The targets were sent 12 open-ended questions that focused on their knowledge and past collaborations with Victoria and the Cristalino Jungle Lodge (CJL). The following people were interviewed: Vitória; Head of a government agency for environmental conservation, who had previously served as the Chief Executive Officer of the Cristalino Ecological Foundation; a university professor whose research focused on conservation in the Amazon forests; an executive of a Brazilian conservation agency who had worked with Vitória on certain collaborative efforts.

One of the challenges of this research was to ensure that pertinent information about the evolution of the project was not biased by recall impediments or by the small sample size of the interviewees. Hence, I researched and reviewed interviews that had been conducted with Vitória over the years. The narratives and interviews that I found were analyzed for this study. I used a total of five narratives. Namely, from Hamilton (2002), from João Teixeira da Costa and Aline Ribeiro (2006), *Children's Tropical Forests* (2009), from Ribeiro and Martini (2009), and from Vitória's Ashoka Fellow's profile (2011). Of the listed narratives, three used face-to-face interview methods to gather information from Vitória. Hence, the data that was used in the present study gathered data using both face-to-face and indirect methodology (multi-method approach). Furthermore, the interviews were conducted in different years by different investigators. The use of multiple data sources, methods and data gathering time-frames, enabled the study to minimize risks such as of retrospective rationalization and omissions (Eisenhardt, 1989). In sum, the nine narratives and interviews were used for the coding process.

The narratives and interviews were supplemented by secondary documentation, such as journal articles, policy documents, tourism brochures, press statements, and newspaper articles. In validating

the facts of the case, I used articles that had been written about the Cristalino Lodge and the Cristalino Park in the Wall Street Journal and in a major Brazilian regional newspaper – *Diário de Cuiabá*. The newspaper articles that were downloaded and used were published between 1990 and 2013. These secondary data were used primarily as verification of facts, events and dates only. They were not coded. In the next paragraph I will describe the coding process that was used for this study.

5.2. Data analysis

All the data for this study were transformed into digital format and separated into various years in which the narratives and interviews were gathered (2002, 2006, 2009, and 2011). The uncoded content had 21,672 words and was 59 pages long. The author read through the material several times to get an overview of the contents. Then the documents were imported into *NVivo 10* (2012) software. Before the coding was done I developed six themes: Resource Acquisition, Interests, Purpose, Issue Framing, Participants and Programs and Actions. These themes were developed based on my review of the case study data and actor-theory studies.

These themes are also called substantive categories (Maxwell, 2005). Also, I developed initial codes for each theme. Initially, there were 32 codes across all the six themes. The themes and coding categories focused on the actors and their actions in order to gain an in-depth understanding of the phenomenon (Gibbs, 2002). The number of coding categories under the themes “Programs and Actions” and “Participants” was twenty-two initial codes. The coding themes and categories were used to create the coding nodes in *NVivo* software. During the coding process, coding categories were merged and refined. Also, some new coding classes were created. At the end of the coding process there were more than 45 coding categories across seven themes (Table 1). The seventh theme was called “black-boxing”. The coding theme represents activities and practices that the sustainable venture institutionalized. At the final step of the analysis the six of the translation phases of ANT were used to synthesize the coding categories into theoretical categories (Table 1). Namely, each coding category was assigned to one of the phases called problematisation, obligatory passage point, interessement/enrollment, mobilisation and black-boxing. The two phases, interessement and enrollment, were merged since they were related to one another. Table 1 below shows an overview of the coding categories and coding classes. To keep the length of the article within accepted limits, only a few excerpts from the coded narratives are presented in the results section. This makes it possible for human actors to speak for themselves (Maykut & Morehouse, 1994). The theoretical categories that were derived from the study proved to be a robust framework for analyzing and understanding the conflict that occurred when the Brazilian government took steps to reduce the size of the protected land that was protected by Vitória. An actor-network account of this conflict will also be presented at the end of the results section.

6. Results

6.1. Translation and the development of sustainable tourism ventures

The founding of a sustainable tourism venture involved a number of risks that were not necessarily common to a typical tourism business. First, the product that is marketed by a sustainable tourism business is the undisturbed forest and nature. But that is not the only value that such a venture offers. An authentic sustainable tourism venture must practice what it preaches by implementing sustainability practices all through its operations. In

the case of Vitória, she had further disadvantages such as the remote location of her town and the limited transportation infrastructure. She was also not formally trained in forestry or environmental sciences. Hence, she was dependent, to a large extent, on the contributions that others could provide to the venture. Hence, her sustainable tourism venture required that she leverage the potentials of humans and non-humans (Latour, 2005). Specifically, to succeed the founder must be the recipient of translation flows from different stakeholders. In the following sections, this paper will use the phases of the actor-network theory to describe the actions that Vitória deployed as she built her venture.

6.2. Problematisation

For this translation phase, the study identified three actors, namely Vitória, the Amazon forest, and economic actors, including farmers and ranchers. Small-holder cattle ranching and logging dominated Alta Floresta's economy, except for a brief period in the 1980s (Jackson, 2014). The economic logics of the farming and ranching businesses were contrary to conservation. The interactions between the economic actors and the forest created negative impacts. The evidences from literature and interviews showed that a gold rush-related migration occurred between 1979 and 1989 (Dubreuil, Debortoli, Funats, Nédélec, & Durieux, 2012). Once the gold rush had ran its course, large areas of the forests were destroyed and people were seeking for new ways of making a living for themselves. Many of the would-be prospectors and workers turned to the practice of subsistence ranching, especially small-holder livestock and cattle ranching. These economic activities created new waves of deforestation (de Onis, 1990). This environmental degradation contributed to the founder's problematisation process.

I was more worried about conservation at the beginning. Because in the region where I am, we were having very high rate of deforestation. And I got alarmed with that. And I said, what can I do. Oh, yes. I felt desperate. What can I do? What can I do in order to change the situation? (Vitória, interview)

Vitória concluded after the problematisation process that the issue was a lack of conservation. Part of this phase also involved Vitória defining her own role. She decided that her role was to create a business that would prove to everyone that a tourism business could coexist with the preservation of nature.

I did not know if it would work. It was a lot of intuition, courage, desire to have a model (Vitória, interview).

Starting an eco-tourism business was a leap into the unknown. When Vitória began her work in Alta Floresta she concentrated on showing that it was possible to introduce viable economic activities to the region without causing damage to the environment. This problematisation phase required the specification of specific obligatory passage points that would be strong enough to convince various actors.

6.3. Obligatory Passage Point (OPP) definition

In this phase, the study identified six actors, namely five non-human actors, the forest, a hotel, educational institution, conservation agency events and the town of Alta Floresta; and four human actors, namely Vitória, educators, family members, and building contractors. Vitória emphasized that the support that she had from her family enabled her to pursue her dream. The first OPP was a

Table 1
Substantive and theoretical coding Categories.

Themes: and Coding Classes	Theoretical Categories: and Definitions
<p>Interests to be protected: focal actor; forest, and others</p> <p>Issue framing focus: big farmer needs; community needs; needs of the forest; self (Vitória) needs</p> <p>Purpose of venture: conservation; eco-tourism; business development; self preservation</p> <p>Resources acquisition: skills; scientific knowledge; technical knowledge; physical assets; financial resources;</p> <p>Participants: Local education and research institutions; Local citizens; Government agencies; Legislative bodies; Global scientific institutions; Global conservation institutions; Clients of Lodge; Brazilian ecotourism organizations; Brazilian tourism firms;</p> <p>Programs and Actions: Nature activities; Creation of parks; Seek funding for projects; Training and educating citizens; Providing tour guides; Lobbying for/ against new legislation; Lobbying for creation of new parks; Support scientific researchers; Support regional ecotourism development; organize activist activities</p> <p>Institutionalizing conservation principles and practices: Cristalino Ecological Foundation (Creation of parks; Seek funding for projects; Training and educating citizens; Building Partnerships with scientific researchers and conservation and education institutions); Cristalino Ecological lodge (providing tour guides; modeling sustainable practices; modeling minimal impact tourism)</p>	<p>Problematisation: The act of defining a problem such that one's own role is clear and such that the possible roles of other actants are clear.</p> <p>Obligatory Passage Point: The set of actions that a founder commits himself/herself to do because of the role she defines for him-/herself; The set of actions that a founder requires all potential actants and actors to comply with, given the roles principal actor defined for them.</p> <p>Interessement: The act of encouraging others to start a network or the act of encouraging others to join a network that is focused on an issue as it has been problematized by a founder.</p> <p>Enrollment: The act of starting or joining a network that is focused on an issue as it has been problematized by the principal actor.</p> <p>Mobilisation: Actants become actors by actually carrying out contributions that are aligned with purposes of founder and her network.</p> <p>Back-boxing: Ideas and practices become entrenched and institutionalized norms.</p>

direct consequence of the role that the actor defined for herself. Given that she wanted to have an eco-tourism business, she had to go back to school to get a degree in Business Administration. Also, she had to acquire knowledge about sustainability.

I was about 40 or so years, I decided to go back to school. I took the Administration Specialization Course of the Getulio Vargas Foundation. At that time I already had a certain level of maturity and had begun to hear about the environment. In 1988, 1989, I attended eco-tourism events. We had one in Ilheus, Bahia, another in the state of São Paulo. I made a trip out and contacted Conservation International (CI). In 1992, I was in Rio at the conference on sustainability (Vitória, interview).

The second OPP for the founder was that she had to build her first hotel in 1986. The purpose of this hotel was to be a gateway for tourists who wanted to learn about or visit the Amazon.

Vitória da Riva, the founder's daughter, and her husband, Edson de Carvalho, built a modern, 60-room tourist hotel, the Floresta Amazonica. The hotel arranged visits to gold-panning sites and to the tropical orchards, coffee and cocoa farms of the Da Riva family and to river spots for swimming and boating (de Onis, 1990).

Her embeddedness in the hospitality business meant that she was able to see tourists as a critical business factor. She was embedded in the faming business enabled her to understand that a lot of citizens depended on farming for their livelihoods. She also brought her family history to the decision. This meant that conservation was embraced as one of the OPPs:

Vitória is the daughter of the Colonizer of Alta Floresta, Mr Ariosto of Riva. The Riva family has always had a role and respect. She was always seen as a businesswoman, as owner of the Amazon forest Hotel. She held an informal leadership position as one of the daughters of the "colonizator" (settler) of Alta Floresta, Ariosto da Riva (former FEC CEO, interview).

The attributes of Alta Floresta included its extremely remote location. This remoteness made the location less attractive to the large Brazilian tours operators. However, Vitória lacked some skills, knowledge, resources and the recognized status as a conservationist. Hence, she had to find unique ways for interesting others to her project. This will be discussed in the next section.

6.4. *Interessement phase*

In this phase, a principal actor seeks the attention of other actors and attempt to convince them that her/his mission/vision is the preferable one (Rodger et al., 2009). In this phase, the study identified five actors, namely two non-human ones, the hotel, the town of Alta Floresta; and three human actors, namely Vitória, national Brazilian tourist operators, and tourists. The interest of the tour operators was to organize economically profitable trips to accessible locations with interesting attractions. The interest of the founder was to convince the national tour operators to advertise and bring tourists to her hotel and to Alta Floresta. Last, but not least, the tourists were interested in experiencing something that was special, unique and different from what they were used to experiencing. In 1992, the tourism industry was regionalized. The customers bought tours from international tour operators. The international operators then contacted national tour operators in places such as Brazil. Brazilian tour operators then contacted local tourism agencies, such as Vitória, which organized the execution of tours. Without favorable marketing action of the national tour operators, the tourists would neither consider nor come to Alta Floresta. Vitória experienced some surprises in this phase. For example, Vitória's attempt to convince national tour operators to bring tourists to the hotel, was met with disinterest. No national tour operator was interested in coming to Alta Floresta. Hence, Vitória had to become a Brazilian tour operator herself to sell the tours to her Jungle Lodge.

(In those days) the Brazilian tour operators did not want to come to visit this area because we did not have a proper aircraft. It was a small plane with 14 seats only. So, they did not come here and did not want to sell the product. So, I said to myself, if they are not going to come here nor sell my product, then I am going to set up my own tour agency. So, I founded the Floresta Tours. And then, I went to several international trade fairs in order to offer the product. And, this was how I started. I sold the product myself (Vitória, interview).

However, the success of Floresta Tours was minimal. Only very few tourists came to the location. There was one event that changed the situation. An American ornithologist, Ted Parker, visited the hotel and Alta Floresta. After conducting his studies, the researcher

found several rare and unknown species of birds in the Amazon forest. The rare birds were indicators of the unique biodiversity of the region (Sabino, 2012). This gave significant credibility to Alta Floresta as a location for seeing and studying rare birds. After he publicized his work, word quickly spread that Vitória's private reserve was a birdwatcher's paradise. Several major international tour operators, specializing in bird-watching tours, started bringing scientists to the eco-lodge for the purpose of bird watching. They used the ecolodge as a base for such tours (Hamilton, 2002). This fortunate event brought a shift in Vitória's interestment approach. Birdwatchers were a different kind of tourist, because they woke up early and they needed to go deep into the forest where birds were located. The Amazon forest Hotel was 5 min away from the airport but far away from the deep forest where birdwatchers needed to be.

In 1990, her first move was to buy 700 acres of land for the Cristalino Private Forest Reserve. This was followed in 1992 by the setting up of the Cristalino Jungle Lodge. Initially, the Lodge attracted scientists because it provided easy access to this diverse area of Southern Amazon rainforest for the first time. Famous ornithologists like the late Ted Parker, Roger Tory Petersen and Robert Ridgeley came to research the reserves spectacular birdlife and Dr Haffer did his pioneering research on the role of rivers as barriers against species separation.

In the next section, I will discuss the actors that were enrolled to make the venture possible.

6.5. Enrollment phase

The enrollment phase is when the initial intent that was expressed during the interestment phase is substantiated. This enrollment phase was a bi-directional one. For this phase, the study identified eight actors, namely two non-human ones, conservation/sustainability training and the town of Alta Floresta; and six human actors, namely Vitória, Vitória's family, building contractors, international conservation organizations, PROECOTUR, the ecotourism program/agency of the Brazilian Government and the Ecological and Economic Planning for the Environment and Tourism institute.

First, the enrolment process also involved the recruitment of people to design and build her lodge and to help run the business. Vitória enrolled some of her family members to join the venture.

I started with my husband. I have five children and they are involved in the business. My eldest daughter, she is an excellent architect. She is responsible for the buildings and the projects. Then, I have two daughters who are psychologists. My other son is also an architect. He is dealing with sustainability issues in the lodge. My youngest son is in management. He is a specialist in the lodge (Vitória, interview).

Furthermore, Vitória enrolled individuals who helped develop the initial trails and she recruited tour guides for the trails. The enrollment phase involved the deployment of approaches and methods which were consistent with the principles and standards of sustainable tourism. The lodge included several minimal impact features in its operation and implementation. For example, the bungalows were setup to consume a minimum amount of energy and were powered by generators. The minimal use of energy was offset by the use of large windows that let in natural light during the day. Furthermore, the waste generated by the ecolodge was separated into various categories and recycled properly (Sabino, 2012).

Enrollment also involves boundary-spanning activities. Literature defines boundary spanning activities of an actor as efforts that are directed towards establishing, expanding or reinforcing boundaries (Arndt, & Bigelow, 2005). Vitória used boundary-spanning to enroll people into her sustainable tourism venture. For example, the founder helped to found the Brazil Eco-tourism Society in 1993. She also joined the U.S.-based International Ecotourism Society and participated in its events.

For example, the principal actor enrolled herself in eco-tourism networks. In some cases, she joined relevant networks to gain access to their members and to build relationships with them. In other cases, she initiated joint projects with conservation organizations. Given the limited level of development of the eco-tourism concept in the early 1990s, access to its principles and practices were limited. Hence, the founder had to enroll in an organization which taught the principles and practices of sustainable tourism. The Ecological and Economic Planning for the Environment and Tourism institute (Ecoplan:net) was one of the few training organizations that focused on capacity building for entrepreneurs, interested in tourism and/or ecological conservation. Vitória got her initial training from this organization.

However, there were actors who were already interested in conservation. Vitória's enrollment of such actors was vital because they could provide expertise and funding for conservation and sustainability-related projects. These agents were enrolled by the founder to support her initiative in Alta Floresta. Vitória also enrolled herself into regional networks. For example, PROECOTUR was an eco-tourism Development Program in the Amazon. Nine Brazilian States made up the PROECOTOUR. The full name of the program was the ecotourism development program of the Legal Amazon. PROECOTOUR set aside \$200 million for ecotourism projects in the nine states constituting the initiative. The PROECOTUR reviewed tourism projects and funded those that would develop eco-tourism in the region. Nine Brazilian State governments signed a loan agreement with the Inter-American Development Bank (IDB) to finance PROECOTUR projects.

However, Vitória was unable to enroll local farmers and other local stakeholders to her venture. Their interests were in conflict with the conservation approach and they feared that the approach would hinder their ranching and farming businesses.

At the beginning when I started in this community of Alta Floresta, the local community did not understand my work. They thought that their wishes to develop the forest, which included deforestation (to) plant crops or something at the time, were being hindered (Vitória, interview).

Nevertheless, the impact of Dr. Parker's work caused her to focus on enrolling more scientists and researchers. She believed that the locals would appreciate the forests if they were presented with evidence about the value of the forest. Hence, she started to enroll scientists to come and study the forests.

They (the locals) thought that I was talking about conservation whereas they wanted to develop (the land); this went on and on and on until I realized that I had to deal with environmental education in a different way. I had to deal with the environment in a professional and deeper way. Then I started bringing in scientists to this region in order to study the region and in order to study the forests. At that time, this area of the Amazon had no studies at all (Vitória, interview).

One of the respondents shared the following example of Vitória's skills in enrolling people to her venture:

Take one example: Sergio, who was ICV's director back then, went to the Northern Mato Grosso in 2000 in order to set up ICV's first conservation project in the region. He stopped in Alta Floresta, though he had not intended to work in that particular municipality at that time. He met Vitória at the Floresta Amazonica Hotel, and she convinced him to set up his headquarters there. He did that, and the two of them later designed the "Southern Amazon Biodiversity Conservation Corridor" Program, which was what attracted me to Alta Floresta (ICV executive, interview).

6.6. Mobilisation phase

The mobilisation phase was the period in which the involved actors accomplish activities that contribute towards the overall mission of conservation and sustainable tourism in Alta Floresta. Vitória's enrollment activities led to the mobilization of actors such as the Royal Botanical Gardens, Kew, Fauna & Flora International, World Wildlife Fund, Wildlife Conservation, Instituto Centro de Vida (ICV), and Fundacao Botanicario, Brazil.

The most important partnership was with Royal Botanical Gardens, Kew, U.K. They researched the gardens and the entire ecosystem that we have here. They discovered nine different habitats that were unknown before. This was very unusual in a private reserve, for example, in other forests in Brazil with 1–2 million hectares, people have found only two habitats. And these are quite large forests. Here in our private reserve, with a small hectare size, having nine habitats is unusual (Vitória, interview).

To mobilize more visits and studies by scientists, Vitória offered various kinds of support to encourage them to visit Alta Floresta. On her own, she contacted researchers and biodiversity research institutions. The flora mapping work was done by several partners, including the Cristalino Ecological Foundation, Royal Botanic Gardens, Kew (UK) and Fauna & Flora International, the State University of Mato Grosso (UNEMAT-CUAF), Rio Tinto and Sema. At the time of this study, over forty scientific research studies had been done in Vitória's private reserve (CJL website):

I gave support to researchers who wanted to come here. We also formed partnerships with Brazilian Universities. We had the University of San Paolo work together with Kew Gardens (of the UK) on a project. We had the University of Brasília work together with the University of Oklahoma to study reptiles and amphibians in the Amazon. Then, we had Louisiana University studying the birds. Then, we had independent researchers, like Prof Ted Parker, studying the birds. So, we still have partnership with the University of Peru. They have studied the climate for the past ten years (Vitória, interview).

The publication of the findings of Kew Gardens, United Kingdom, brought more visibility to the work of the ecolodge and the private reserve. It showed the value of the forests and hence helped to confirm Vitória's argument that the forest had value. It also, changed the way in which the general population in Alta Floresta.

Furthermore, in 1998, Vitória helped convince the state government to designate a 66,900-ha forest area that was contiguous to her own private reserve, into a State Park. This action created a protected forests corridor (Hamilton, 2002). The Cristalino State Park (Cristalino 1 and 2) was created by laws that were enacted in the years 2000 and 2001. Another positive mobilization action that

occurred was that PROECOTUR approved \$350,000 for various sustainable tourism projects in the state of Mato Grosso, which is the state in which the town of Alta Floresta is located. Of this amount, PROECOTUR earmarked \$200 million (R\$260,000) for the development of a management plan for the Cristalino State Park. Alta Floresta was also nominated as gateway of eco-tourism in Mato Grosso.

6.7. Black-boxing phase

The positive impact of the scientific studies on her venture opened the eyes of Vitória to the value of networking with researchers. In 1999, Vitória decided to institutionalize this aspect of her work as a separate nonprofit. This new institution was called the Fundação Ecológica Cristalino or the Cristalino Ecological Foundation (CEF), an independent non-profit entity, which had its headquarters in Alta Floresta. Its primary purpose was to create relationships with the scientific community. CEF's work included the lobbying for funding and finding partnerships that would help produce meaningful results in the areas of conservation, environmental education, research and rural community outreach. Furthermore, another objective of the CEF was to acquire more forest areas and to convert them into RPPNs to protect them. To support the work of the FEC, Vitória required all eco-tourists staying at her lodge to pay a special fee to support the FEC. In this way, the process of attracting funding and researchers to the venture was black-boxed.

She also black-boxed the purpose of the ecolodge and its integration of sustainable tourism principles. Vitória maintained her focus on operating an economic business that will also conserve the forests.

We have a lodge in order to finance the conservation of the area and to fund the forest reserve. Our forest reserve is 20% bigger than the Island of Manhattan. We have one big umbrella. The one big umbrella is conservation. This is what drives us. This is what drives my family. I have a lodge as a business in order to support conservation and for us to live (Vitória, interview).

Actions were also taken to institutionalize a professional approach for forest management and to black-box the approach.

Fauna & Flora International (FFI) worked with local stakeholders for over three years to create a management plan for the 184,000-hectare Cristalino State Park. The Cristalino Ecological Foundation and FFI deployed the project according to FFI's institutional logics. The FFI believes that a local buy-in is the only way to conserve rainforest reserves. Hence, the project used processes that actively involved the community (Fauna & Flora, 2010).

Finally, the business orientation and eco-tourism programs and services of the eco-lodge were black-boxed. The business-side of the venture was structured and operated as a profitable business.

What we do is this. We have on our website descriptions of all our trails. This enables the guests to self-select themselves into the program activities that best fit them. For example, if they are eco-tourists we have the natural history tours. They will see a little bit of everything. They will visit several different trails. If they are a group of birdists, then we have special trails for bird watching groups. If they are photographers, we have a different way of dealing with their needs. If it is a family tour, we have different trails for them. We have different types of tours according to what people wish to do. We have more than 30

kilometers of trails. When people arrive here, my guide and I segment them according to their age and interests (Vitória, interview).

6.8. Unfreezing the black-box phase

One of the other events that was investigated during this study was the political conflict that threatened to change the size and status of the area that had been designated as the Cristalino State Park. In June 2000, and by State Decree, a large portion of the forest was designated for the development of a park. Initially the area declared to be a park covered 6,6900 ha of land. Later, in May 2001, the park area was expanded by 118,000 ha, to a total area of 184,900 ha. An initial reason for the designation of land as a park was to protect it from invasions and deforestation. It was also an acknowledgement of the ecological importance of the region, given the results of scientific studies that had been conducted (Instituto Centro de Vida (ICV 2003).

Seven actors were identified in regards to this phase: State of Mato Grosso's legislators, local settlers and economic actors, Vitória, conservation activists (global), conservation activists (local and national) and the Cristalino State Park. The first main actor was the body of legislators in the State of Mato Grosso. A central responsibility of these actors was to resettle farmers in different areas of the Amazon. In 2002, the legislators authorized some farmers to be resettled in an area that had been designated for the Cristalino Park. A serious problem emerged because the settlers could not farm in the forests, which had been designated as protected area. In April 2002, the governor of Mato Grosso issued a request to the legislators that a large area of the park be regularized, which meant the revocation of the protected status of the land. In June 2002, legislators passed a short-term resolution that regularized areas within the Cristalino Park. However, the short-term resolution expired after the national elections. In September 2002, a legislator introduced a bill that required the regularization of 46% of the forest area that had been designated as the Cristalino Park.

The land-owners, ranchers, and farmers, who were economic actors, generally favored the reduction of the area that was designated as the Cristalino State Park. These settlers and the economic actors favored the reduction because the decision would make it possible for them to pursue their livelihoods.

Vitória was also a central actor. Her interest was to protect the forest. Hence, she opposed the proposed reduction of the size of the Cristalino Park. This reduction of the park was difficult for Vitória to accept because the Cristalino State Park was regarded as one of the most valuable conservation units in the Amazon. For example, it had an exceptional biodiversity. The area was the habitat of 515 species of birds, 50 of them were endemic (species found only in the region); 43 species of reptiles; 29 amphibians, and mammals. The Park was also the location of a number of pure water springs, including the River Rock, with its beautiful waterfalls, and the River Nhandu (Pereira & Pinheiro do Nascimento, 2010).

Also, the location of the park was contiguous to Vitória's private reserve. The Cristalino Park is located at the north end of Mato Grosso, on the border of an area that was called "the Arc of Deforestation" within the Amazon forests. To the North, the park bordered the Campo de Provas Brigadeiro Velloso (Serra do Cachimbo), an area of 2.2 million hectares that was controlled by the Brazilian Air Force, which was in an excellent state of conservation. Together with Vitória's private reserve, all three contiguous areas became known as "a conservation corridor" of protected forests (Pereira & Pinheiro do Nascimento, 2010). The reduction of the size of the designated area for the Cristalino State Park area would reduce the "conservation corridor" and also reduce the size of land

that could be protected from logging and other economic activities.

Finally, Vitória feared that the reduction of the area designated as the Cristalino State Park, and the change of its name to "Parque Estadual da Gelba Currency", would prevent PROECOTUR from releasing the approved R\$260,000 (\$20 million) for the development of a management plan for the Cristalino State Park (Cubas, 2002).

6.9. Obligatory passage point, enrollment and mobilisation

Vitória formulated a new obligatory passage point when she decided that it was a mandate for her to prevent the reduction of the designated area. She initiated several enrollment actions by communicating with those in her network. The translation from enrollment to mobilisation phase was not difficult to achieve. This was because most of the members of the network were already committed to the goal of conservation. Chain emails were created and other resources were provided on a website that was called "SOS Cristalino". Those in the conservation network were encouraged, by the emails, to contact everyone in their networks and influence them to write emails to Mato Grosso's legislators. Vitória formed an issue-based coalition with several actors to influence public opinion in Mato Grosso against the reduction of the size of the park. Vitória and the ICV mobilized a formidable coalition, called "The SOS Cristalino Park", against the reduction plan (ICV, 2003).

The Cristalino region of the Alta Floresta was already known within Brazil and internationally as an important conservation area. Hence, various non-governmental institutions in Brazil, such as the Institute Partner Environmental, Conservation International, the Pro UC Network, Friends of the Earth-Amazonia Brazil, and the Nature Conservancy made their voices heard on the issue. These NGOs, responded to the "SOS Crystal Park" campaign following the leadership of the ICV and Vitória. The coordinated resistance of these actors helped to raise opposition against the reduction of the area of the Cristalino Park. The use of the Internet enabled the supporters of the Cristalino Park to interest, enroll and mobilize the people who sent thousands of e-mails to relevant authorities (ICV, 2003).

Unfortunately, the conflict was not a short one. Rather, it occurred in several waves. Hence, coalitions of activists, scientists and conservationists had to be mobilized several times before the issue was resolved. In 2002, when the first attempt to reduce the size of the park was revealed, an online petition against the reduction received 21,000 signatures in support of retaining the size of the park. In July, 2004, people from various sectors of the Alta Floresta community, including teachers, researchers, merchants and over 90 partners, formed the "Association of the Friends of Cristalino Park". The group was set up to do everything possible to retain the original size and the status of the park. In November 2006, more than forty networks and organizations, and hundreds of Internet users were mobilized to oppose the reduction of the Cristalino Park. Two cyber actions resulted in more than 4000 signatures. In December, cyber activists from around the world were encouraged to send letters to the Governor of Mato Grosso (SOS Cristalino, 2007). The conflict lasted from 2000 to the year 2010. Ultimately, the size of the area designated for the development of the Cristalino State Park was restored by the courts.

7. Discussion

This study yielded a number of key findings. First, the study provides evidence that the network-actor theory is very helpful in understanding how principal actors found sustainable tourism ventures. Consistent with ANT, the study provided evidence that

the sustainable tourism venture adopted the theory's translation phases, including problematization, obligatory passage point (OPP), intéressement, enrollment, mobilization, and black-boxing. This result has at least two implications. On one hand, it suggests that the personal characteristics of a principal actor might not be sufficient to fully understand his/her success. Rather, this study showed that deployment of the phases of translation is critical for understanding venture formation. On the other hand, this finding implies that one could use phases of translation as a reference point for evaluating projects. For example, if a principal actor were to observe that she/he is not successful in generating interest, the ANT phases would suggest a reexamination of the problematization and the obligatory passage point phases. Hence, this study showed that the principal actor was successful in creating the sustainable tourism venture, in part, because she deployed the ANT phases of translation.

Second, the study suggests that deployment of the phases of translation is not sufficient to fully explain the development of the phenomenon that was studied. Rather, the analysis indicated that the ability of the principal actor to learn new things, to adapt to change and her courage to create spaces for global experts played a significant role in her success.

For example, at the beginning of the project, the principal actor had no background in the sciences or in business. She had to acquire knowledge and skills in both areas. Also, she did not have an extensive training in sustainability. Hence, she had to affiliate herself with a university and a training organization to get the training that she needed. This ability of the actor to acquire lacking skills and knowledge suggest that an actor's initial deficiency of skills and knowledge is not necessarily a disqualifier, if such required skills and knowledge could be acquired from accessible institutions and expert networks.

Third, it was interesting to observe that the principal actor did not set out to impose her sustainability beliefs and passion on her whole community. Rather, her initial ambition was to create a business model which would provide evidence to everyone that conservation and profits could be brought together harmoniously. The thinking that conservation could be harmonized with a for-profit business model is promising for at least two reasons. The thinking encourages principal actors to seek novel approaches for protecting the environment. In a way, this differs from traditional approaches which mostly propose that conservation requires the limitation and/or exclusion of certain economic activities. In contrast, this paper argues that an approach which integrates business and conservation is more likely to be welcomed by a broader segment of a community, than one which only focuses on conservation. Future principal actors would enrich the sustainability area if this perspective is more widely embraced.

Fourth, the analysis revealed that the principal actor took on the responsibility, not merely for advocating for conservation, but also for supporting the discovery of the value of the forest and for communicating the value to others. This is also an interesting perspective that could be fruitful for other sustainability projects. The use of *value-based* arguments to encourage conservation could potentially complement *cost-oriented* arguments. For example, whenever cost is heavily used as a mechanism for achieving conservation, laws are invariably developed which attempt to raise the costs of economic activities which conflict with conservation goals. The problem with the over-use of such conservation policies is that their enforcement costs could become so high that the violators are rarely caught or punished. In contrast, if conservation were also framed as a value-based proposition, one might achieve some level of voluntary conservation compliance. In the case of Alta Floresta, the scope and scale of biodiversity in the forests, including the endemic birds, rare plants, and other botanic attributes, made it

valuable to tourists and scientists. Given this finding, it is recommended that principal actors should explore activities which are likely to improve the value of their strategic resources.

Fifth, another finding of this analysis was that principal actors should be open to the possibility that the skills and knowledge that they need to attract and develop a network, may not necessarily be available locally. For example, in the case of Alta Floresta, the expertise needed to uncover, document and evaluate the natural resources of the forest was largely attracted from outside the country of Brazil. Namely, the Kew Royal Botanical gardens, which is located in England, helped establish the value of the natural forests in Alta Floresta. Similarly, an American ornithologist, Dr. Parker, helped establish the value of the birds in the forests. Hence, the principal actor was successful because she instinctively understood and leveraged the capabilities of global actors. It would have been a mistake if the principal actor had insisted that only local expertise would be leveraged for the sustainable tourism venture.

Moreover, the analysis also showed that the potential customers of a sustainable tourism venture may not be the local citizens. For example, the analysis showed that most of the people who patronized and supported the sustainability venture were not the local stakeholders. In the case of the Cristalino Jungle Lodge, the evidence showed that most of the tourists who visited the lodge were foreigners, not local citizens. Hence, if the principal actor had focused solely on the local stakeholders, the venture would have had a different outcome.

Sixth, this study also makes a contribution to the ANT literature in regards to our understanding of the role of the principal actor. ANT literature typically assume that principal actors are the main drivers of the translation process. These actors are assumed to define their own interests and roles, and the roles that others should play. Principal actors are posited to be persuaders who convince others to accept the roles that the principal actor has defined for them. Hence, the principal actor is defined to be a translator. In contrast, this case analysis proposes a different modus in which a principal actor could create a network. Specifically, Vitória did not force her own goals on others. Rather, she provided a platform where potential contributors pursued their own goals and interests in a manner which increased the value of the forest. Hence, it seems that Vitória largely played the role of an **orchestrator/integrator** rather than that of a translator. The analyses showed that Vitória *created spaces for different agents to pursue their own missions and passions in the context of her private reserve*. The expertise and vision of each contributor determined what each agent did. Hence, this study posits that sustainable tourism can be created if the principal actor plays the role of an orchestrator/integrator rather than that of a role of a translator.

8. Conclusion

In decades of ecotourism research, a number of authors have outlined and defined principles of sustainable tourism (Fennell, 1999; Honey, 1999; Ross & Wall, 1999; Wallace & Pierce, 1996). Others have investigated the economic benefits of ecotourism (Stronza & Pêgas, 2008; Weaver & Lawton, 2007; West & Carrier, 2004). However, one finds that little has been done to analyze the formation of ecotourism ventures using a qualitative framework such as actor-network theory. The study revealed key findings about sustainable tourism ventures. First, the findings showed that the principal actor deployed the phases of translation in creating her venture. Furthermore, the case also identified a mode of translation that has not been clearly differentiated by prior work. . Specifically, the study found that translation could occur if a principal actor acts as the orchestrator of actors, who are acting

according to their own interests, while using the same platform. This finding complements and extends extant concepts which emphasize that translation requires the unification of all actors to pursue a mission and act in a way that is defined by the principal actor (Callon & Law, 1997; Callon, 1986; Latour, 2005). Rather, this study found that a network could also be created if a principal actor succeeds in orchestrating human and non-human actors to pursue their individual, but complementary goals, while using a common platform.

There are at least three avenues for future research based on this work. First, future work could analyze more cases about other kinds of sustainable ventures to explore if the same phases of translation could be verified. Second, future research could explore if the orchestration and unification mode of translation are appropriate for different kinds of networks. Lastly, future work could explore if and which translation phases are found across different kinds of sectors and industries. Finally, it would also be valuable to discover if certain kinds of principal actors prefer the orchestration to the unification mode of translation. For example, one could explore if serial social entrepreneurs deploy the same mode of translation across different ventures.

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