

Stream: 15 Sustainability and social issues in management  
Competitive

**DEVELOPING A CONCEPTUAL BUSINESS MODEL FOR A SUSTAINABLE  
ECO-SYSTEM**

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**ABSTRACT**

*The paper focuses on developing a strategic financial business model for the purpose of creating a sustainable forest ecosystem for CUE Haven, a farmland property located at Kaipara north of Auckland. The paper commences with an overview of the literature on the topic of restoration, and looks at various funding models for non-profits, non-profit funding and ecological restoration in the New Zealand context. Two case studies, Tiritiri Matangi Island and Oronokui Bird Sanctuary in Dunedin, are reviewed and used as examples of what can be achieved. Recommendations are provided in the concluding sections for the farm to develop a financially sustainable model to run its operations. The paper aims to find a sustainable business model for CUE Haven.*

**Stream 15: Sustainability and social issues in management  
Interactive Session**

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**ABSTRACT**

*The paper focuses on developing a strategic financial business model for the purpose of creating a sustainable forest eco-system for CUE Haven, a farmland property located at Kaipara north of Auckland. The paper commences with an overview of the literature on the topic of restoration, and looks at various funding models for non-profits, non-profit funding and ecological restoration in the New Zealand context. Two case studies, Tiritiri Matangi Island and Oronokui Bird Sanctuary in Dunedin, are reviewed and used as examples of what can be achieved. Recommendations are provided in the concluding sections for the farm to develop a financially sustainable model to run its operations. The paper aims to find a sustainable business model for CUE Haven.*

**Keywords:** community partnership, environmental issues, environmental management, sustainability

Overlooking the Kaipara Harbour is where CUE Haven is located, being a 59 acre former dairy farm north of Auckland City on the Kaipara Coast Highway. A quarter of the property has established native forests and wetlands. The original plan was to build a retreat, but it was later changed to convert the farm back to a native forest. As 24% of the property was already covered in native forest and wetlands, it was considered that it would be best to create a sustainable forest eco-system by restoring connectivity between forest remnants. The ongoing restoration and maintenance of the forest in perpetuity requires a sustainable financial model, based on a range of development options subject to investigation. This paper examines potential sources of funding and income generation for the project, the legal frameworks involved and the financial sustainability for CUE Haven in the New Zealand context. Two case studies of successful ecological restoration projects, Tiritiri Matangi and Orokonui are used as examples of what has been achieved. The findings are then applied as recommendations for the CUE Haven, Kaipara project.

The model for CUE Haven has been drawn bearing in mind the socio, cultural and economic context of New Zealand, and it recommends the creation of a strategic and sustainable business plan that incorporates international borrowing, funding from the New Zealand government and various regional councils, as well as corporate funding and contributions from volunteer groups. The calculation of the Return on Investment (ROI), a profit and loss plan, engagement in collaborative ecosystem management with community groups and a partnership with the Department of Conservation, are all vital aspects for the financial sustainability of CUE Haven.

The suggested avenues for income generation include engaging in tourism businesses, payment for ecosystem services, the creation of an education center, eco-tourism activity, the creation of a trust fund and the provision of services, for a fee, that are not directly concerned with the project's primary activity. Normally for-profit businesses find sources of revenue by creating value for the customer. However, not-for-profit organizations experience a distinction between the beneficiaries of value created and the funder. In the case of CUE Haven, the funders (consumers) are beneficiaries of the value created. Therefore CUE Haven could be run on the lines of an efficient for-profit business model with the objective of generating surpluses and self-reliance.

## **LITERATURE REVIEW**

It is a fact that fund-raising is one of the greatest challenges faced by not-for-profit organizations and therefore planning for financial sustainability and focusing on a reliable financial model is paramount to their survival. A plan for financial sustainability not only focuses on obtaining money, it must also include other types of resources such as support in kind, staff volunteers and shared resources from other organizations. It should include strategic objectives and action steps to obtain and maintain the resources necessary to fulfill the organization's mission (Community Toolbox, 2013). According to Bell, Masaoka and Zimmerman (2010), every not-for-profit organization has a business model. The role of leadership is

to develop and communicate an overall strategy that brings together all activities into a viable business model for the entire organization. Foster, Kim & Christiansen (2009) define not-for-profit funding models in terms of the sources of funds, the types of decision makers and their motivations. The study found that not-for-profit models were funded by first a single person or a few individuals or foundations, second, the government, third, corporate funding and fourth, a mix of funders.

According to the Office for the Community & Voluntary Sector (2008), a centralized state and the approachability of politicians and senior government officials in the past were vital to formal and informal partnership arrangements between not-for-profit organizations and the government in New Zealand. The 1970s and 1980s witnessed a significant expansion in this sector. The subsequent transition from informal partnership arrangements to formal accountabilities for not-for-profit organizations as well as procedural interactions were later contested because they were viewed as being unethical and unhelpful to the sector and its development. However, the new processes became necessary with the vast increase in the demand for government funding support.

According to Leon (2001), since the percentage of not-for-profit organizations achieving financial sustainability is low and their vision continues to be donor dependent, these organizations must use more advanced methods of internal income generation to achieve financial sustainability. Financial sustainability of a non-profit organization is regarded as the capacity to obtain revenues in response to a demand to sustain productive processes at a steady or growing rate in order to produce results and obtain a surplus. This may be achieved at the project, program or organizational level. Leon (2001) states that the four fundamental pillars for financial sustainability are usually identified as: first, strategic and financial planning, second, income diversification, third, sound administration and finance and fourth, own income generation. In addition, attaining financial sustainability also requires long term commitment on the part of management, the investment of time and money, a good business plan and effective leadership towards managing a team. In evaluating the concept of a business model, Lindgardt, Woods,

Charles and Thickett (2013) describe the concept of business model innovation (BMI) as the capability of a business to be developed by taking a re-look at various components of the business to redefine operations, and the way in which businesses deliver value.

Another interesting aspect is the contribution of eco-tourism to forest regeneration and sustainable ecological development. According to Honey (1999) the Eco-tourism Society defines eco-tourism as “responsible travel to natural areas that conserve the environment and improve the wellbeing of the local people” (p. 6). Eco-tourism is meant to help not just nature but local people as well, by providing jobs and preserving wildlife, the environment and natural habitats. According to the Department of Tourism, eco-tourism is a significant revenue earner for the country (Tourism New Zealand, 2010). According to Russell (2009), ecological sustainability is defined as “the creation of an intelligent earth” (p.3). Russell (2009) also cites James Lovelock’s Gaia hypothesis that the earth is a single interconnected eco-system and that sustainability is an evolution of human consciousness - humans are not “the masters of the earth”, but “the guardianship of its life” (p.11).

### **NEW ZEALAND CONTEXT**

The office for the Community & Voluntary sector (2009) in New Zealand states that, not-for-profit organizations are affected by laws and regulations that form the basis of legal forms, tax treatment and the ways in which they can act. About 61% of New Zealand’s not-for-profit organizations are estimated to be unincorporated (Statistics New Zealand, 2002). Incorporated not-for-profit organizations are generally incorporated under the Incorporated Societies Act of 1908. The Central Government in New Zealand provides a number of funds for ecological restoration projects (Wellington City Council, n.d.). New Zealand’s economy is highly dependent on its agriculture, horticulture, forestry, fishing and tourism industries. These ‘ecosystem services’ contribute directly to production and consumption in the market economy, but they come under pressure from economic and social activities (Statistics New Zealand,

2002). The Department of Conservation (DOC) emphasizes the importance of developing partnerships with communities to achieve conservation work with the key message: ‘Conservation needs community support.’ However, certain groups in communities run projects in an efficient, businesslike manner to achieve ecological outcomes and meet the requirements of funders although these projects may not always contribute to DOC’s goal of involving the wider community to do conservation work. DOC has to consider newer and innovative ways of involving other communities in conservation work (Wilson, 2005).

### **NEW ZEALAND CASE STUDIES**

New Zealand is home to some of the best conservation projects in the world. Therefore multiple cases were used in this exploratory study. Data collection instruments included documentation reviews, secondary sources of information and interviews in one of the case study. A two day visit to Nga Manu Nature Reserve served as a pilot study to capture the concepts and data needed. This was done via field notes, tape and video recordings. The senior manager in charge was interviewed to record issues relating to the financial viability and sustainability of the reserve. Anecdotes, comments and examples were recorded and documentation reviewed included financial statements for the reserve. In addition the following two reserves were studied to investigate across case studies on models for financial sustainability.

#### **Titiri Matangi Island**

The Titiri Matangi Island ([www.tiritirimatangi.org.nz](http://www.tiritirimatangi.org.nz)) in the Hauraki Gulf north of Auckland City is administered by the Department of Conservation and is supported by a community group: “The supporters of Tiritiri Matangi (SOTM)”. The island has a history of degradation from human activities and habitation from the 1850’s to the mid 1970’s. A vegetation programme of restoration was started in 1984 with vegetated cover on the island increasing by 60% through the planting of 2,800,000 trees over a

10 year period to 1994. Translocation of species to the island is ongoing for the restoration of the island, as well as providing a refuge to species that will be restored to other parts of New Zealand in the future. The island is run by volunteers (SOTM), and has evolved from a primary voluntary labour force to managing the island's visitors, infrastructure, bio diversity as well as making a significant financial contribution to the island and facilitating conservation education. The island is funded by DOC, with supplementary income generated through subscriptions, donations guiding and souvenir shop concessions. The restoration goals for Tiritiri Matangi Island are first, to actively provide and protect the interests of the 'tradition guardians' by facilitating their links with the area and their cultural treasures. Secondly, to restore Tiritiri Matangi to being an open sanctuary for native fauna and flora, with particular emphasis on the introduction and breeding in the wild of threatened bird species. Thirdly, to continue to develop the island as a focus for community involvement in conservation through the use of volunteers.

### **Orokonui Eco-sanctuary**

In less than 10 years, the Orokonui Eco-sanctuary (<http://www.oroikonui.org.nz/>) has become the only place on the mainland of the South Island where native birds, animals and insects can live a life safe from predators. They are free to fly, feed, mate and nest wherever they wish, exactly as they would in the wild. Since the \$2.2 million 8.7 km pest proof fence was erected around the 307 hectares of protected habitat in 2007, pests have been almost entirely eradicated. This approach has allowed the eco-sanctuary to reintroduce a number of endangered species. To support the eco-sanctuary, an eco-friendly Otago Daily Times education centre has been built into the hillside above the bay. Here visitors can learn about the eco-sanctuary and the native species it contains, take guided tours, purchase gifts and educational material from the souvenir shop or simply have a coffee and enjoy the view. All of the funds from the visitors contribute to the ongoing conservation work at Orokonui Eco-sanctuary, and provide new employment opportunities for the local community.

## RECOMMENDATIONS BASED ON CASE STUDIES FOR CUE HAVEN

As mentioned before, CUE Haven is a 59 acre farm in Araparera, north of Auckland City on the Kaipara Coast Highway overlooking the Kaipara Harbour. About a quarter of the property has established native forests and wetlands and several streams. The original plan was to establish a retreat, but the owners later decided to convert the farm back to a native forest. As a quarter of the property was already covered in native forest and wetlands, they thought it best to create a sustainable forest eco-system by restoring connectivity between forest remnants. CUE Haven has received funding assistance from the National Heritage Fund, the Environmental Initiatives Fund and the Department of Conservation's Biodiversity Advice Fund, which was given specifically for a detailed assessment of the ecological characteristics of the property in order to prepare a detailed re-vegetation plan. The ongoing restoration and maintenance of the forest in perpetuity requires a sustainable financial model, based on a range of development options subject to investigation. There are a number of factors for the company to consider, such as the need to obtain capital commercially, to attract personnel from the private sector, to safeguard the organization from business risk and to safeguard the organization image. There must also be a clear policy on how the surpluses, if any, are utilized within the organization (Leon, 2001). A conceptual funding model is presented (Figure 1), its components are discussed, and the recommended process for CUE Haven is outlined below.

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Insert Figure 1 about here

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First external Borrowing: CUE Haven could consider external borrowing from international funds. The Global Environment Fund, for example, was established in the International Bank for Reconstruction and Development (IBRD) as a US\$1 billion pilot programme to assist in the protection of the global environment and to thereby promote environmentally sound and sustainable economic development

(Global Environment Facility, 2014). Second, funding from government/regional bodies: The New Zealand government has various funds that are made available to land owners for ecological restoration purposes. Notable among these are the Afforestation Grant Scheme, the Permanent Forest Sink Initiative of the Ministry of Agriculture and Forestry and the Community Partnership Conservation Fund of the Department of Conservation. (Wellington Regional Council, n.d.). Third, funding by individual donations or by a foundation to CUE Haven's financial sustainability efforts. Four, corporate Funding: Conservation Volunteers New Zealand is a New Zealand Not-for-Profit conservation organization for environmental restoration projects (Conservation Volunteers, 2011). Conservation Volunteers of New Zealand was founded in 2006 by Conservation Volunteers Australia. In terms of its environmental restoration projects it could be approached by Cue Haven members for assistance. Five, volunteer Groups and Fund raising programmes: Some non-profits grow by focusing on causes that resonate with the existing concerns of a large number of people at various income levels and by creating a structured way for volunteers to connect through special fund raising events (Foster et al., 2009). Another example is the eco-friendly Otago Daily Times Education Centre in Dunedin where visitors learn about the Orokonui eco-sanctuary and the native species. It entails taking guided tours, purchase gifts and educational material from the souvenir shop or simply have a coffee and enjoy the view. Six, Cue Haven could create new ways of doing business by engaging in collaborative eco-system management with other nonprofit organizations. A possible model is of non-profits operating on a strictly fee-for-service basis in either a business to business or direct to consumer fashion. According to Wilson (2005), collaborative management and community based conservation focuses on indigenous communities living in and around parks and protected areas. The Department of Conservation emphasizes the importance of developing partnerships with a range of communities to achieve conservation work (Wilson, 2005). Another possible source for income earned could be from ventures that are distinct and separate from their core mission-related activities (Foster et al., 2009). This could simply be the sale of promotional products (T-shirts, posters, other products with the organization's logo) or more complex activities such as offering consulting

services in a particular field. Deciding on sources of income generation and funding that are most suited to the organization involves a few considerations that are considered in the concluding section below.

## CONCLUSIONS

New Zealand being a small country is keen to look to the non-profit sector to solve important problems and therefore a realistic understanding of funding models is increasingly important to realize those aspirations. The following questions are considered important when deciding which funding model to choose: Have a large cross-section of people shown that they will fund projects in this domain? Is it possible to communicate what is compelling about the CUE Haven mission in a simple way? Does CUE Haven have the in-house capabilities for the purpose? Does the CUE Haven mission create an individual benefit that is also perceived as an important social endeavour and does it develop a deep sense of loyalty to CUE Haven in the course of receiving that individual benefit? Does CUE Haven have the ability to involve and manage members in fundraising activities while being committed and faithful to the core membership. Will core members have the conviction to turn down funding opportunities that may not augur well for members? Can CUE Haven create a tangible and lasting solution to sustainable ecological restoration in a foreseeable time frame? Is CUE Haven able to clearly articulate how it will use large-scale funding to achieve its goals?

As a final conclusion, the impact of the results of the Cue Project is that it could have direct implications for the feasibility of other restoration projects. If a successful model can be identified, it may serve others wishing to restore farm land to native forest and thus benefit the Auckland region in particular.

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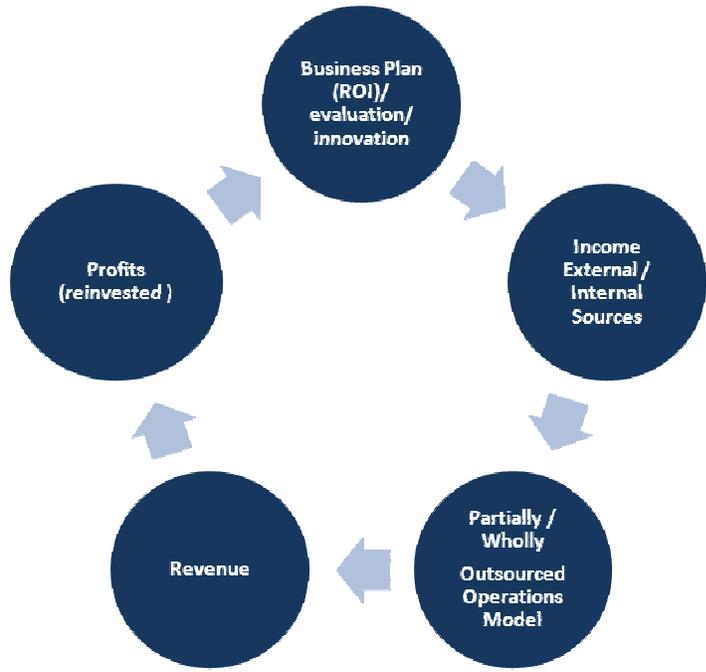
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Figure 1: Business Model Recommended for Cue Haven



Source: Developed by the researchers for this project