

# Co-Design of eTourism Application. The Case of Ilha de Mozambique

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## Abstract

As it has been noted, in international development one can oftentimes find a design-reality gap, which hinders – or even stops – intended positive effects to become reality. Among other reasons, a top-down approach, which tries to implement solutions designed and tested elsewhere, could be listed. To remove, or at least reduce this possible negative element, co-designing interventions have been proposed, in order to ensure a better understanding of local problems, culture, priorities, and requirements, as well as to promote wider adoption of developed solutions. The paper presents the case of co-designing an intervention in Ilha de Mozambique, a property enlisted among UNESCO cultural World Heritage. Involved parties have been the local Community Multimedia Centre, which combines a community radio with a telecentre, and the association of micro tourism enterprises (mainly B&B). The designed intervention, as well as the design process and the development of the designed artefact – a simple online portal that features the Ilha, and the concerned micro-businesses – are presented and discussed.

**Keywords:** co-design; community; community multimedia centres;

## 1 Introduction

Mozambique has been a tourism destination in sub-Saharan Africa since the early 1990s, when the country witnessed the signature of the Roma agreement, a peace covenant that placed an end to a bloody civil war (1976-1992). During this period Mozambique also witnessed the introduction of information and communication technologies (ICTs), especially the internet, computers and community radios (Rega et al., 2011). The diffusion of ICTs was propelled by the appearance of non-governmental organizations (NGOs) and the creation of the Centre of Informatics at the University Eduardo Mondlane (CIUEM), these duet perceived that ICTs could help to climb out of poverty, produce constructive citizens, support science, and alleviate the literacy crisis.

The unification of Community radios and telecentres in Mozambique gave birth to Community Multimedia Centers (CMCs). In the Mozambican context Community radio is a radio that broadcasts in local languages, with coverage not higher than 100 Km. The telecentre part covers ICT training in word, excel and power point.

The CMCs have been the main vehicles to create local content, information in formats usable in the rural areas, they have the capability to provide to communities

conditions to use and learn ICTs (Churchill et al., 2004). Within a short period of their implementation in the rural Mozambique the CMCs became relevant sources to provide services almost exclusive to the urban domain. Nonetheless, little or almost no research has been conducted in Mozambique about the potentialities and contribution of ICTs in the field of tourism.

The Mozambican government recognizes tourism as an instrument for local economic development, capable of affecting job growth and leading a number of positive long-term consequences ranging from lower unemployment, higher labour force participation, to increase real estate value (Bartik, 1991).

This paper takes a central premise the discourses about local communities reaping benefits of tourism; hence the aim is at answering two research questions:

- RQ1: *can co-design be applied with small communities to develop eTourism solutions in an emerging economy?*
- RQ2: *what is the impact of eTourism solution co-designed by a local community?*

## 2 Literature review

Developments in ICTs have changed both the tourism industry and its strategies, as now destinations have to compete at national and international level (Crouch & Ritchie, 1999). The destination management authorities (i.e., tourism offices, airline regulators, Municipalities, etc.) create financial conditions for the development of several platforms that range from websites to mobile apps, to CRS where organizations within the destination can provide information to travellers, enriching the destination information (Buhalis, 2003).

The United Nations World Tourism Organisation (UNWTO) in 1993 strongly emphasized that “*tourism should be a sustainable activity*”. Sustainability is a paradigm of tourism management strategies that seek to avoid short term exploitative practices in favour of long-term solutions that maintain and enhance the economic, environmental, social and cultural practices of a destination (Hall & Kirkpatrick, 2005). The United Nations Educational, Scientific and Cultural Organization (UNESCO) have been committed to conserve, protect and present worldwide values of our culture. The UNESCO World Heritage and Sustainable Tourism Programme in recent years has taken a new approach based on dialogue and stakeholder cooperation (UNESCO, 2010). This approach wishes to reduce the gap between local communities and tourism stakeholders, and to create awareness on the concerned value in order to better preserve it.

Co-design comes as a complementary conception of artefacts drawn on shared vision, social learning and mutual understanding, taking into account that all involved in the design process have different perspectives and expectations, which should be taken into account. Co-design activities can be analysed according to five distinct stages: social needs, social changes, formulation, implementation, and review (David et al., 2013). *The social need* stage is the process that provides conditions to create a convivial situation, where conceptualization of community needs takes place, and aims at creating a link between stakeholders. In this particular case evaluation of

technological infrastructure was conducted to verify the local partner conditions to implement the improvement action. *The social change* stage creates conditions to estimate the implications of the co-designed action and to identify key beneficiaries. *The formulation* stage drafts the artefact (Curtis et al., 1988), which should be socially and financially sustainable for all stakeholders, especially for the tourism entrepreneurs and CMC of the Ilha de Mozambique. *The implementation* stage produces an artefact created on a shared vision, providing conditions to guarantee empowerment and community participation. *The review* stage allows intervention to visualize the solution and perform changes.

### **3 The Methodology**

In the northern region of Mozambique, between the Mozambique Channel and the Mossuril bay, there is a small island with 3 km length and 500 meters width named the Ilha de Mozambique.

The co-design action in the Ilha de Mozambique consisted in creating a “convivial tool”. A convivial tool is a solution that allows communities to invest their time to enrich the environment with the fruits of their visions and to use them to accomplish a purpose they have chosen (Sanders, 2006). The selected tool in this case is a website to promote the island at the national and international level and to invest time in collecting information about its social, cultural, and touristic values.

The intervention on this improvement action were the local CMC director and two collaborators. Bed and Breakfast (B&B) owners, teachers, local government entities, housewives, and local business entrepreneurs, represented the community. The academic team was formed by two PhD Students with computer science and humanities background. Two workshop sessions were devised in the Ilha de Mozambique to inspire, create, adapt, and plan the steps forward. During the first session held at the Ilha de Moçambique CMC, the CMC coordinator presented the main idea of the project, which was well received and supported by the local community.

Roles within the project were defined: the academic team was requested to produce a template for the website and to oversee the introduction of information on the platform. It was also requested that the academic team provided expertise and support to the CMC by phone and Internet. Such convivial interactions produced the website ([www.ilhademocambique.org](http://www.ilhademocambique.org)), which was well received by the community, whose maintenance was entrusted to the CMC and overseen by the community and the academic team.

The data for this study was collected using: (1) participant observation and field notes about the co-design process, (2) Google analytics to collect usages of the co-designed website, and (3) a survey to collect information about actual tourists. Field notes and participant observation were used to answer RQ1, while questionnaires and web analytics data were used to answer RQ2. Questionnaires were distributed through the B&B throughout a year period starting from September 2013 until September 2014; resulting in 28 usable responses from seven different nationalities – Mozambique, Brazil, China, Portugal, Italy, South Africa, and Argentina.

## 4 Findings

The co-design process to promote the island of Mozambique answered positively to RQ1, attesting that co-design can be used with small communities in an emerging economy to produce a eTourism solution, RQ2 was still to be answered.

**Website visitors vs. travellers' origin:** From September 2013 to September 2014, the website received a total of 710 visits; Visitors tend to access on average 2.03 pages and stay on average for 2.08 minutes. Website visitors are mostly from Mozambique, Brazil, Portugal, United States, Switzerland, Germany, Netherlands, Italy, Kenya, South Africa and the United Kingdom.

Information about the travellers who visited the B&B has been collected through a questionnaire distributed in two B&Bs: Casa Yasmin and Residencial Kero, provided a total of 28 questionnaires (16 and 12 respectively). Respondents were mainly from Mozambique with 8 travellers, followed by Brazil, China, and Portugal with 4 travellers each. South Africa had 4 respondents, trailed by Belgium and Italy with 2 respondents each.

Most respondents visiting the island of Mozambique are 25 to 34 years old 13 travellers; followed by 11 travellers within 25 to 34 years. The number of travellers decreases drastically within the 45 to 54 year-old segment, where the number of travellers is 4.

From the 28 respondents, 6 travellers responded that they acquired information from the Ilha de Mozambique website, which means that 21% of them used the co-designed website to prepare their travel. Furthermore, 4 travellers responded that they acquired information from Lonely Planet, and 4 acquired detailed information from the country's travel agency Sun Star International Travel Service (SSITS). Word of mouth is also presented as source of information about the B&B, which was mentioned by 4 travellers, and 3 travellers did not disclose the source of information. The remaining 7 travellers provided search engines such as Google, Bing and Yahoo as source of information.

## 5 Conclusion

This case study explored the implications of a co-design approach aiming at creating a community e-tourism solution in a developing economy. Based on the study results, the B&B received financial benefits from providing information about their services. The successful factor in this study is the number of users the website received in one year.

The limits for local community participation in tourism development process in developing countries have been the source of research and discussion (Tosun, 2000). In this paper, an approach towards mitigating the problem is provided. Local communities are empowered to promote destinations and within the process gain financial benefits. In this study, the B&B hosted 21% of the travellers who were referred by the CMC website. Responses to the questionnaire reflect the diversity of travellers, but it was an unequal distribution when compared to the website visitors. The questionnaire results also provide an indication that travellers from emerging

economies tend to acquire information about destinations by word of mouth or travel agencies (Litvin et al., 2008).

Destination product portfolios present tangible, intangible goods and services. Normally, deciding a marketing strategy becomes a challenging task as there are multiple stakeholders in a destination with different aims, agendas, and expectations (Okumus et al., 2007). The co-design approach presented in this study draws a pattern to mitigate the problem of deciding what and when to promote, by taking into consideration all stakeholders' needs.

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