

COS10025 Technology in an Indigenous Context

Research Report

Swinburne University of Technology

Project Title: Digital Solutions for Solving Ecosystem Problems, Tourism, and Marketplace: A Case Study of Vung Tau City, Vietnam

Project Team: 9

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Literature review

The purpose of this literature review is to provide background information about the current problems that Vung Tau is facing to investigate and identify the solution. From these findings, a suitable solution can be figured out to address the problems and recover them.

Background and current problems

Vung Tau City is a coastal city in Vietnam that is well-known for its beautiful beaches, resorts, historical sites. It has over 300 kilometers coastline and is well-known for the number of tourism projects to attract millions of local and foreign visitors (Duc Hanh 2022). However, there are environmental problems that keep rising such as air pollution, water pollution which has caused the destruction of beautiful scenes, and a greatly reduced rate of tourism. The mangrove areas had been reduced due to uncontrolled violations of forest protection rules (Eco-tourism promises both potentials and challenges for Bà Rịa-Vũng Tàu 2023). In recent years, the city has been working to address these problems with the use of digital solutions. Especially, after 2 years of COVID-19 epidemic.

Local solutions and local ideas

Vung Tau has offered some ideas that can help to protect the local environment such as:

- Model of sea tourism without plastic bags and applying new technologies for environmental protection.
- Upgrading tourism infrastructure, improving product and service quality.
- Investing in new projects, campaign to attract tourists and local people.
- Developing eco-gardens to create new products and connecting tourism managers and businesses.
- Promoting cultural values, tourist attractions and historic relics.

During the research, I found that after the COVID epidemic, a problem has arisen which is eliminating the wildlife trade. After the pandemic, the local authorizers focused on creating a campaign to reduce reduction of species loss in Vung Tau.

After the epidemic, Vung Tau still try to help the businesses in different industries to recover (VNA 2021).

Recovery of tourism industry

The tourism industry is one of the most important sectors in Vung Tau's economy because it is the point to attract the foreign tourists and surrounding people to come and use the service.

To recover the tourism industry, Vung Tau has implemented a number of plans which include:

- Promoting Vung Tau as a safe and attractive tourist destination where a lot of newspaper write about the Vung Tau rule apply on the people here to prevent the lockdown to happen again.
- Investing in tourism infrastructure, such as new hotels, resorts, attractions to prepare to handle the large numbers of tourists will come here.
- Developing new tourism products such as eco-tourism and adventure tourism surrounding areas to promote Vung Tau city is one of the cities in the world try to save the environment.
- Promoting Vung Tau to international markets to attract potential customers that can invest in this city economy.

Other challenges

In addition to challenges has been caused by COVID-19 pandemic, Vung Tau is also facing several other challenges such as:

- Environmental pollution
- Overpopulation
- Traffic congestion
- Lack of skilled workers
- High cost of living

If Vung Tau is aiming to become a sustainable city, these problems need to be addressed soon.

Conclusion

Vung Tau is a beautiful city with a lot of potential. However, it is facing several challenges and problems that need to be addressed soon to achieve sustainable development.

Project description

This project will explore the use of digital solutions to address ecosystem problems, tourism, and marketplace issues in Vung Tau City, Vietnam. The project will focus on three main areas:

1. Ecosystem problems: The project will investigate the use of digital solutions to address environmental problems in Vung Tau, such as air pollution, water pollution, and deforestation. By exploring digital solutions, the project aims to mitigate these problems and contribute to the restoration and preservation of the city's natural environment.
2. Tourism: The project will explore the use of digital solutions to promote tourism in Vung Tau and to improve the quality of the tourism experience. This will involve enhancing the tourism experience through technologies.
3. Marketplace: The project will investigate the use of digital solutions to create a more efficient and effective marketplace for businesses in Vung Tau. The aim is to create a thriving and efficient marketplace that benefits both businesses and residents.

To ensure the project's integrity and information, research will be sourced from reputable resources such as:

- Journal articles
- Research paper
- Newspaper

And all the information gathered will be cited to acknowledge the original authors and sources.

Project goals and Objectives

The overall goal of this project is to develop a set of digital solutions that can help to address the ecosystem problems, tourism, and marketplace issues in Vung Tau City.

The specific objectives of the project are to:

- Identify the key ecosystem problems, tourism, and marketplace issues in Vung Tau City through extensive research and analysis, the project team will identify and prioritize the critical areas that require attention and improvement.

- Investigate the use of digital solutions to address these issues. The project will delve into cutting-edge digital technologies and methodologies and exploring how they can be applied to solve the identified problems effectively.
- Develop a set of digital solutions that can be implemented in Vung Tau City.
- Evaluate the effectiveness of digital solutions.

By achieving these objectives, the project aims to make a significant positive impact on Vung Tau city fostering environmental sustainability, boosting tourism and fostering a thriving marketplace that benefits both the local community and economy.

Desired outcomes and benefits

The desired outcomes of this project are to bring about several positive changes to Vung Tau city, resulting in significant benefits for the community and these outcomes include:

1. Improve the environment in Vung Tau City: By implementing the digital solutions will help to reduce the environmental pollution in Vung Tau City
2. Increase tourism in Vung Tau City: the digital solutions will help to increase the number of tourists in Vung Tau. This can be achieved by enhancing the visitor experience, providing access to information about the attractions, promoting cultural events and improving infrastructure.
3. Improve the business environment in Vung Tau City: the digital solutions will help to recover and connect between businesses and local people, employees. This can lead to increased employment opportunities, stronger collaborations in Vung Tau city.

The benefits of this project include:

1. A healthier environment: by addressing environmental challenges, the project will contribute to creating a cleaner environment and more sustainable city.
2. More jobs in the tourism industry. This will provide employment opportunities for residents and contribute to economic growth.
3. A more efficient and effective marketplace This can lead to improved productivity and better customer experiences.

4. Understand more about this city to promote it. This knowledge can be leveraged to promote the city effectively, both domestically and internationally, attracting more visitors and investment for projects and campaigns.

Learning issue/problem

The main learning issue/problem for this project is how to use digital solutions to address the ecosystem problems, tourism, and marketplace issues in Vung Tau City. There is a lack of research on this topic, so the project team will need to conduct original research to identify the best digital solutions for Vung Tau City. Due to lack of existing research in this area, the project team may need to view the local place to identify the most suitable and effective digital solutions for the city's needs.

Project Scope and Exclusions

The scope of this project includes the following:

1. Identification of the key ecosystem problems, tourism, and marketplace issues in Vung Tau City. The project team will conduct thorough research and analysis to identify the specific areas that require attention and improvement.
2. Investigation of the use of digital solutions to address these issues. The project will explore the various digital solutions, tools, technologies, and strategies that can be applied to tackle the identified problems effectively.
3. Development of a set of digital solutions that can be implemented in Vung Tau City. The project team will design and develop a comprehensive set of digital solutions to the needs a context of Vung Tau city.
4. Evaluation of the effectiveness of digital solutions. The project will involve testing and evaluating the implemented digital solutions to assess their impact, effectiveness in addressing identified challenges.

Project Deliverables

The project deliverables are the following:

- A report that identifies the key ecosystem problems, tourism, and marketplace issues in Vung Tau City which also include:
 1. Investigation of the use of digital solutions to address these issues.
 2. A set of digital solutions that can be implemented in Vung Tau City.
 3. Evaluation of the effectiveness of digital solutions.

- Project source code

Project Management Plan

Timeline

The project will be completed in 3 months (12 weeks).

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| Research Phase | | | | | | | | | | | | |
| Innovation concept | | | | | | | | | | | | |
| Present Project | | | | | | | | | | | | |
| Project reflection report | | | | | | | | | | | | |

Table 1: Project development Gantt Chart

Goals and Milestones

Goal: Complete the research phase by the first 5 weeks

- Milestones: research difficulties of Vung Tau
- Milestones: research possible solutions
- Milestones: Research Phase

Goal: Complete the Innovation concept phase by the week 7

- Milestones: Coming up with solution
- Milestones: sketch out the solution
- Milestones: Understand the solution about the constraints
- Milestones: Innovation concept

Goal: Present the project by the week 11

- Milestones: construct the idea deeper
- Milestones: strengthen the positive points of the idea
- Milestones: try to minimize the constraints of the idea
- Milestones: Project presentation

Goal: Complete the project reflection report by the week 12

- Milestones: Project reflection report

Team breakdown and duties

| Scrum team Member | Role |
|--------------------------|--------------|
| Cao Phuc Khai Hoan | Scrum Master |
| Tran Thanh Minh | Developer |
| Bani-Hashemi Le Minh | Researcher |
| Tran Kim Thu | Researcher |
| Nguyen Dang Vinh | Researcher |

Table 2: Team roles

Word count: 1619 words

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