Intermediation, supply strategies and norms in tourism

Malgorzata Ogonowska¹

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¹ Université Nice Sophia Antipolis – GREDEG CNRS, rue Albert Einstein - bat. 2 - 06560 Valbonne – France, Phone: +33 493954393, +33 623682345, E-mail: malgorzata.ogonowska@gredeg.cnrs.fr

Supervisors: Prof. Dominique Torre and Dr. Christian Longhi

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Goal and objectives of the dissertation

Goal

This Ph.D. thesis analyses recent evolutions in the supply strategies in tourism due to modifications in consumer preferences. It focuses on two important components of tourism goods – price and quality. First, it considers the evolution of pricing and distribution strategies induced by the development of ICTs; then the focus is made on quality modification as the consequence of the emergence of new environmental and sustainability issues and norms.

Objectives

1. To identify dominant distribution and pricing strategies in tourism.
2. To analyse, since many variants of opaque systems exist, whether there is an advantage for an online intermediary to use simultaneously more than one alternative opaque distribution channel.
3. To identify the role of service providers and of industry in the emergence of environmental norms in tourism.

4. To identify the role played by the residents in the emergence and adoption of environmental and sustainability norms by tourism service providers.

Methodology

First the thesis surveys of the main recent developments, the thesis uses the tools originating from industrial economics. In the second chapter is developed an optimisation game with heterogeneous tourists under complete and incomplete information. The Stackelberg framework is used to design the interactions between potential travellers and the intermediary. In the third chapter a static, sequential model of optimisation with heterogeneous agents is developed, under monopoly and duopoly frameworks. The fourth chapter integrates interactions among three types of agents in an analytical optimisation model.

Results

After having identified dominant distribution and pricing strategies in tourism, the focus is made

on comparison of the two opaque selling mechanisms. The analysis of profitability of single and simultaneous implementation of the two opaque distribution channels depends on consumers' uncertainty levels. Under imperfect but complete information, it is equivalent to implement the most efficient system (the Name-Your-Own-Price (NYOP) system) or both channels in parallel. In case of incomplete information and under moderate uncertainty levels, the joint implementation of two booking systems provides the best results.

The model developed in the third chapter describes the emergence and the adoption of environmental norms in tourism. It shows that the evolution of the environmental quality of the service provider's offer depends mainly on modification of tourists' preferences, due to increased awareness of pollution problems. It underlines the importance of reputation and network effects in the evolution of demand preferences. It shows that consumer heterogeneity results in environmental and overall quality enhancement of the product. Finally, it demonstrates the industry's role in emergence of environmental norms using monopoly and competition frameworks.

The last chapter shows that integration of interactions with residents has a double impact on the development of a more sustainable tourism by a given service provider. First result is that it limits the number of tourists served. Then, in most cases it accelerates the adoption of environmental norms, because the residents have a better perception of products and tourists respectful of local culture and environment. Only when objective negative impacts dominate the others, it could be more profitable to provide traditional tourists solely with traditional products.

Theoretical conclusions

An extensive literature review conducted in the first chapter identifies the key issues clarified or still unelucidated concerning pricing and distribution strategies on the e-tourism markets. The focus is made on dynamic pricing models and shows the importance of demand segmentation in the development of new price discrimination practices. Then, the second

chapter analyses an alternative distribution channel based on opaque pricing, a method whose implementation has been brought about by the use of the Internet. It develops an original optimisation game with heterogeneous tourists. It compares the profitability of single and joint implementation of the two opaque selling models developed on the US tourism market, issue that has not yet been addressed in the related literature.

The second part of the thesis provides first an extensive survey on sustainability issues related to tourism. It combines the contributions of different academic fields. This literature review highlights that most of studies on sustainable tourism are empirical. Thus, the third and fourth chapters complete this literature using a theoretical approach. They focus on the determinants of development and of adoption of environmental norms. The originality of this approach resides in the analysis from the supply point of view. It studies how interactions among service providers, heterogeneous tourists and residents make environmental and sustainability norms become general ones. In adopted framework the three types of agents are considered as active stakeholders.

Practical application of the dissertation

Both parts of the thesis give some important guidelines to intermediaries, service providers and local policy makers.

First, concerning intermediaries and service providers, it identifies necessary conditions for successful implementation of dynamic pricing practices. It shows how market actors can benefit from the heterogeneity in agents' preferences and risk aversion, while developing their pricing schemes. Then, still in the same vein, it displays conditions for profitable joint implementations of the two opaque selling mechanisms, which for instance have been developed independently on the market.

Next, it provides important guidelines for service providers facing heterogeneous demand, more or less sensible to environmental issues, and local residents, irritated by tourism activities. It shows that by

developing an all sustainable strategy a given service provider can ensure social harmony in the destination and attract socially and environmentally conscious tourists. Finally, it gives some advice for the policy makers of these destinations on how to encourage the transition towards a more sustainable tourism.

Content of the dissertation

The thesis is divided in two parts, each consisting of two chapters. The first part considers the impacts of ICT development on distribution channels, intermediation and pricing strategies. The second part focuses on the influence of actors' increasing awareness of environmental problems on the quality of tourism products.

Abstract of part one

The first part addresses a number of issues related to the emergence of new business models where the role of the Internet as a distribution channel is central. This part focuses on strategic choices, concerning product distribution and pricing, which have appeared necessary for actors willing to enter, to maintain or to reinforce their positions on the market. Particular attention is paid to how the Internet has allowed new forms of pricing while, at the same time, enhancing the role played by strategies based on such traditional concepts as product differentiation and market segmentation.

Abstract of chapter one

After a brief overview of recent tourism and transportation markets reorganizations, the first chapter analyses prevailing distribution and pricing strategies. It identifies the key features of product differentiation and demand segmentation on the markets. The focus is made on dynamic pricing models. The chapter differentiates them from the well-known three degrees of price discrimination and identifies the key issues, clarified and still un-elucidated, in this field.

Abstract of chapter two

The second chapter focuses on alternative distribution channels, namely the opaque selling, in which some of characteristics of the services are concealed (hotel or airlines

brands, exact hotels locations or travel schedules) until the payment is completed. The focus is made on opaque posted-price selling and on opaque NYOP systems, which explore the most price-sensitive, but also the most flexible segment of demand. Opaque models offer price conscious consumers, significant discounts, as a counterpart of opacity and uncertainty. At the same time they allow suppliers to sell their excess inventory through a "brand-shielded model", helping them to manage dynamically the fluctuations of demand, when supply is rigid in the short term. Related literature analyses diverse features of these strategies, as well as the profitability of their implementation. However, it omits the question of their joint implementation. Thus, through an analytical model of an intermediary in a situation of monopoly, facing a heterogeneous demand, this second chapter studies and compares the profitability of the two opaque systems single and joint implementations. Model results depend on consumers' uncertainty levels. When information is imperfect (the travellers do not know the nature and the number of tickets available) but complete (potential clients know their number and their respective propensity to pay), it is equivalent to implement the most efficient system (the NYOP system) or both of the systems in parallel. In case of incomplete information (the travellers know their number but not their relative propensity to pay) and under moderate uncertainty levels, the joint implementation of two booking systems provides the best results.

Abstract of part two

The second part of this thesis analyses the influence of agents' increasing environmental awareness on the quality of tourism products. Indeed, since 1990s consumers and market actors have become more and more aware of pollution problems caused by mass-tourism. Tourists' sensibility to environmental protection issues has increased, which implied a progressive modification of their preferences. A new segment of consumers emerged, desiring sustainable products. At the same time, local populations' resistance to tourism activities, creating negative externalities on their everyday life, intensified.

At this point it has to be underlined that environmental protection and sustainability issues in tourism are probably the most widely investigated concepts within the related literature. In spite of this abundance, there are no studies demonstrating how environmental norms may emerge, evolve, and become general, neither on the residents' influence on the adoption of these norms. The second part of this thesis focuses on these questions.

Abstract of chapter three

The third chapter, through a demand-driven approach, in the context of monopoly, and then duopoly, explains the role of the industry in the adoption of environmental sustainability norms. It analyses the evolution of a service provider's offer adapting to demand preferences modification. By integrating reputation and network effects in preferences' evolution, it demonstrates how sustainable tourism products emerge, when the service provider diversifies its' offer to answer its customers' needs; evolve, when the environmentally conscious populations grows; and even eliminate traditional products, when environmentally conscious tourists become extremely sensible to ecological issues and start boycotting products distributed by service provider, offering also traditional ones. In this situation the firm adopts an "only-sustainable" strategy and abandons its traditional offer. In order to satisfy all its clients, it enhances the quality (in terms of luxury standards) of the

sustainable product, to answer also traditional tourists' needs. The main danger resulting from the quality enhancement strategy is that it may attract a new entrant, specialised in traditional product, at more advantageous price, such as traditional tourists could choose its offer. Finally, the incumbent decided to develop either a co-existence strategy, either to eliminate the new competitor, depending on the proportion of environmentally conscious tourists, on the sustainable tourism product's quality level and on both suppliers' costs' levels. In most cases the co-existence strategy dominates.

Abstract of chapter four

In the fourth chapter, based on the same theoretical core, another aspect of sustainability is analysed. It considers an hotelier's interactions with local population, based on the type of product offered and on type and number of tourists served. The chapter focuses on residents' role in the adoption of environmental norms. Indeed, host communities have an influence on the number and type of tourists visiting the destination. By engaging in more or less aggressive, actions they take part in decision at which level and what kind of tourism they wish to develop in the area. Taking into account residents' reactions modifies the service provider decisions. It leads it to reduce its offer, and in most cases, to choose the sustainable solution.