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**THE DEVELOPMENT OF THEORY TO ASSIST THE
APPLICATION OF DESTINATION YIELD
MANAGEMENT**

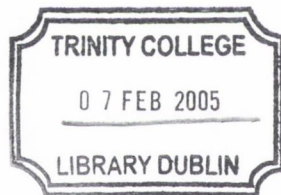
A Thesis submitted to
the Department of Statistics
Trinity College Dublin

In fulfillment of the requirements of the Degree of

Doctor of Philosophy

Michael F. Mulvey

2005



THESIS
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DECLARATION

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For my parents,
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THE DEVELOPMENT OF THEORY TO ASSIST THE APPLICATION OF DESTINATION YIELD MANAGEMENT

Abstract

Destinations are geographical spaces where tourism experiences take place. They include the built and natural environment, attractions, the host community and commercial interests – predominantly SMEs. The role of destinations has changed in the past decades from a product led perspective with relatively stable markets and travel distribution channels. Intense competition, ever more demanding consumers and the eroding of traditional distribution channels by electronic intermediaries are compelling destinations and their SMEs to examine and embrace management techniques which maximise revenues and thereby increase profits. Yield management is a technique which has a successful record in large organisations, such as airlines and hotels, in maximising revenue but with limited penetration in SMEs.

The dissertation focuses on the development of a theory of yield management or destination yield management. The research identifies the concepts, relevant variables and their attributes. These are checked using in-depth interviews with key informants who may be considered as thought leaders in the Irish tourism sector. Feedback is evaluated and the theory is modified. Contributions to existing models of destination management and directions for future research are identified. Conclusions are drawn and recommendations are made.

Acknowledgements

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Abbreviation Used

ADR	Average Daily Rate
AGIFORS	Airline Group of the International Federation of Operations Research Societies
BES	Business Expansion Scheme
BF	Brian Flynn
CL	Catherine Lowry
DARI	Destination Average Rate Index
DC1	Destination One Night Conference
DC2	Destination Two Nights Conference
DLW	Destination Leisure Week
DLM	Destination Leisure Midweek
DLE	Destination Leisure Weekend
DM	Destination Management
DMIS	Destination Management Information Systems
DMO	Destination Management Organisation
DMPI	Destination Market Penetration Index
DMS	Destination Management System
DRGI	Destination Revenue Generation Index
DYM	Destination Yield Management
EU	European Union
GDSs	Global Distribution Services
GNP	Gross National Product
IATA	International Air Transport Association
ICT	Information Communication Technology
IHF	Irish Hotels Federation
IHG	Intercontinental Hotel Group
IST	Information Society in Tourism
ISTT	Information Society Technologies in Tourism
IT	Information Technology
IW	Ireland West
JC	John Concannon
KNITE	Knowledge Base on Information Society Technologies for Tourism within Europe
LANs	Local Area Networks
MIT	Massachusetts Institute of Technology
PO'T	Paul O'Toole
RTA	Regional Tourist Authority
SMEs	Small (including micro) and Medium Sized Enterprises
SS	Stuart Stephens
TRS	Rainbow Travel Services
WANs	Wide Area Networks
WTO	World Tourism Organisation
YM	Yield Management

CHAPTER 1

INTRODUCTION

1.0. Introduction

Yield Management (YM) coordinates activities with the objective of revenue maximisation from the sale of perishable assets. It is grounded in the theory of price discrimination. Destination management (DM) is a holistic approach to coordinating the fragmented supply side, including SMEs, of open tourist destinations¹ with the objective of delivering competitive visitor experiences. Models of DM are based on sustainability.

Destinations lack the framework to access YM, facilitate revenue maximisation by their SMEs and advance the Information Society in Tourism. This dissertation explores concepts of DYM and develops a theory to assist its application.

1.1 Yield Management (YM) and Competitive Advantage

When interviewed in 1985, Donald Burr, Chief Executive of People Express, identified computerised reservation systems and their associated YM system as the “lethal weapon” which wiped out his company. He recalled how, on January 18th 1985, their competitors, American Airlines, launched a nationwide promotional campaign which promised fares that would always undercut People Express. Their competitors’ systems allowed them to manipulate their database, such that in any market they could meet, match or beat People Express fares. How could one set of airlines undercut their low cost rival, consign it to bankruptcy and continue to make profits? In essence, as Burr could point out in hindsight, his competitors, through analysis of data, could offer a number of bargain basement fares as low as \$19 subject to certain restrictions, such as advance purchase, cancellation penalties and minimum stopovers. A sufficient number of seats could be sold at the last minute to “pinstripers” for fares far in excess of the bargain offers. People Express was locked into one low fare and did not have the capability to offer variable pricing.

Equally, Donald Burr might simply have reflected that People Express paid insufficient attention to the theory of consumer surplus. On a similar note, in 1992, Sir Colin Marshall attributed British Airways’² rise to the most profitable airline in the world to

¹ In open destinations tourists and residents mingle. There is a multiplicity of SMEs, a combination of public and private control of natural and built attractors. A community-based organisation markets and manages events and festival activities. It promotes the destination in the form of visitor experiences. Such an organisation is called a Destination Management Organisation.

² In recent times BA failed to anticipate the appeal and skill of airlines such as Ryanair which changed the rules by operating a low cost no frills business model. BA compounded their difficulties by unsuccessfully attempting to emulate Ryanair through the launch of a low cost/no frills subsidiary GO.

sophisticated yield management and cost cutting (European Commission, 1997:16). In the resort sector Vail Resort Properties in Colorado experienced \$1 million in incremental revenues on switching to a YM system (Withiam, 1999).

The fate of People Express and its association with the application of ICT and YM systems profiled a technology, developed in the airlines and beginning in the late 1950s, that focused on maximising revenue from the sale of perishable assets (Beckman, 1958). American Airlines, some decades later, claimed that their systems incorporating YM techniques had produced 500 million dollars additional revenue since introduction (Smith et al., 1992). The potency of the technique and its impact prompted a review by the US Presidential Commission on Airline Competitiveness (United States Transportation Department, 1993).

1.2. Computerised Reservations Systems, YM and Electronic Purchase by the Consumer

Such was the success of airline computerised reservations systems that they became businesses in their own right. Systems such as SABRE handled travellers' other needs, such as rental cars and hotel reservations (Davidow and Malone, 1992:46). In the pre-Internet era, the end user was a travel agent or corporate client who was connected to SABRE or a similar system. Direct access to SABRE enabled travel agents and corporate users to book and print their tickets.

Some years later the Internet empowered the individual consumer to reserve and pay for their flights and associated travel services from their personal computers. Such instantaneous transactions combined with variable pricing are operationalised through YM systems. There is an opportunity for destinations to set up such systems bypassing the global distributions systems such as SABRE. Destinations then control the transaction and also harvest the consumer information from visitors to the website (Mulvey, 2001).

1.3. Yield Management in Hotels

YM also generated claims of revenue gains by hospitality organisations, such as Marriott (Hanks, 1993). YM for hotels appeared in the literature from the 1970s onwards. Initially, the small number of papers focused on issues such as overbooking, and implicit in them was the view that airlines were the repository of wisdom in YM. As airlines are more

technical in nature and have invested in a greater level of computerisation, this resulted in their paradigm being dominant. There was a lack of conceptualisation and systems analysis of YM in the hospitality sector (Mulvey et al., 1995; Jones, 1999). Poorly designed software (Koss-Feder, 1994), lack of knowledge and expertise and the high cost of the ICT infrastructure (Connolly, 2002) have been noted in the hospitality sector. Notwithstanding this, large companies such as Hilton, Marriott, Hyatt, Holiday Inns and Intercontinental successfully developed proprietary systems (Mulvey, 1998). However, the SME sector in hospitality lagged in adopting YM. Having investigated why YM was less popular in SMEs relative to large organisations, Lee-Ross and Johns (1997) concluded that,

‘Many small entrepreneurs would argue that this [hands on situation of pressure] severely limits the time needed to input and update reservations data...it would not be cost effective to employ someone else to do the job’ (Lee-Ross and Johns, 1997).

The SME sector continued to grapple with the need to integrate technical advances in ICT with their operations (Keller, 2000:31). As SMEs enjoy a particular status in the EU, both the slow take up of YM and the challenges posed in adopting ICT attracted attention. The wider context for the EU’s interest in tourism SMEs and consequent concern about YM and ICT is best understood in the context of their relationship to tourism destinations.

1.4 Globalisation

The globalisation of tourism has enabled large corporations to enjoy economies of scale and to develop brands and specialised management activities, such as YM. In parallel, the consumers’ points of reference and comparison are increasingly global, rather than local. In addition, destinations that comprised clusters of SMEs are in competition with wholly owned enclosed destinations, such as Club Med, which have the advantage of global scale. Technology enables corporations to focus on local markets and individual consumers in a manner once the preserve of smaller enterprises (Weiermair, 2000).

Close contact with and intimate knowledge of the consumer was once considered a comparative advantage of SMEs. Scale, therefore, has enabled large companies to leverage benefits of technologies, such as YM and ICT, and develop customer relationship strategies. The challenge for SMEs is to access similar benefits, perhaps by spreading the cost burden of the technologies and ICT (Smeral, 1998).

1.5 Destinations: Coordinating the Fragmented Supply Side of Tourism for the Consumer

The overall interlinked product of clusters of SMEs, attractions, events and associated natural and built attractors is viewed as the unique appeal to the consumer of the EU's tourism destinations. The supply side of this unique appeal is somewhat fragmented with a combination of commercial ownership, community stewardship of public attractors, government and EU interest. At pan-European level, fragmentation of supply is a concern in the context of the Information Society in Tourism – referred to in section 1.8. National governments are also proactive in tourism. Competitiveness, market failure and socio-economic considerations are the most compelling reasons for an interventionist approach. Market failure arises for a number of reasons. It is generally not viable for an SME to unilaterally promote a country or region to potential visitors. The local and national destination information system may be entirely financed by the state or a joint community/local enterprise and public venture. Likewise, it is not viable for SMEs to bear the full costs of developing a destination with its associated infrastructural costs. Socio-economic issues, such as rural depopulation, motivate governments to incentivise business development through tax packages that provide a viable context for SMEs to develop and flourish. The built and natural environment is often a significant attractor and component of the destination. This may be largely in public control, vested in the community or held privately by individuals not always directly involved in tourism. Some farmers in Wicklow permit thousands of walkers to enjoy their land with no gain.

1.6 The Management of Destinations

For continued prosperity, which avoids degradation of the social, cultural, natural and built environment, there is a need for sustainable development. The organisation of events and festivals poses challenges and requires decisions which traverse and transcend the boundaries of destination elements such as enterprises. It is unlikely that any one SME or other element of this fragmented supply side has the singular magnetism to

attract the visitor. Rather it is the overall image and experience which motivate the desire to travel to a particular destination. The organisation, delivery and promotion of such experiences requires a degree of destination management. This is operationalised and supported by community based corporate bodies known as Destination Management Organisations (DMOs) and their ICT infrastructure known as Destination Management Systems (DMSs).

SMEs, therefore, are as much an integral part and product of the wider social, economic and cultural supports of the destination as they are independent businesses.

The promotion of a destination image and experience is a development of product led approaches in tourism which traditionally emphasised the individual enterprise. In the destination management model SMEs are an integral element.

1.7 The European Union (EU) and Tourism SMEs

Tourism accounts for 6.5% of the total turnover generated by the EU's 18,000,000 SMEs. The EU tourism sector is dominated by SMEs. Over 94% of these firms have less than 10 employees. Almost all tourism SMEs (99%) employ less than 250 persons. In virtually every policy document and action taken by the Commission, the key role of these firms is stressed and prioritised, with particular emphasis on employment creation and their capability to lead innovative developments.

Tourism benefits from over thirty programmes which are not sectoral, but designed to achieve a principal European Community objective. Such assistance covers co-financing/grants, loans guarantees, equity marketing and export promotion, assistance to accession countries, training, co-operation with higher education, business support services between firms, thematic supports in the cultural, environmental, technological and energy areas, research, development and information technology (Mulvey: 2001). The EU drive to promote and develop a single inter-operable electronic environment for tourism to enable SMEs to compete with global corporations is described in the following section.

1.8 The Information Society in Tourism (IST)

It is a policy objective of the EU to quickly enter, i.e. create, the Information Society (Bangemann, 1994:4). Application Four of the EU Action Plan (Bangemann, 1994:24) focused on SMEs and the requirement for local government, Chambers of Commerce and trades associations to mount programmes for integrating information networks at local and regional level. The objective is to enable SMEs to compete on a more equal basis with larger companies and weaken captive contractor–supplier relationships (Bangemann, 1994:30). As a consequence of the Action plan for the Information Society in Tourism (IST) initiative, European tourist projects, such as BITOUR, MINTOUR and CICERO, evolved (INTOURISME, 1999:2). The fear is that the EU will lose its competitive advantage and cede control to competitive suppliers of networks and services from outside Europe. United States based companies such as Expedia and WorldRes exemplify this in the travel market (Bramwell, 2004; IHG, 2004). The concern of the EU is that these external companies may exploit the fragmented nature of the supply side of tourism by imposing standard solutions in electronic commerce which may not be to the benefit of SMEs (European Union, INTOURISME, 1999). It is the perception of the EU that there is a competitive response needed to counter this challenge as these companies continue to invest in tourism content. It is notable that this same perception of a competitive threat from this quarter is now being voiced by larger hotel chains (Bramwell, 2004). European Union policy, informed by projects such as Knowledge Base on Information Society Technologies for Tourism within Europe (KNITE), is to foster the creation of a group of federated European information systems that are interoperable and thereby enable cooperation among regions and stakeholders in tourism (i.e., integrate existing systems interconnecting with air, road, bus and other information systems). It is significant for this research that yield and capacity management is one of the enabling technologies of the Information Society in Tourism (IST) identified by the EU (European Union, 1998:1).

1.9 Slow Adoption of YM by SMEs in Tourism

The link between YM, the creation of the Information Society in Tourism and the competitive advantages enjoyed by substantial US controlled firms practising YM raised EU concerns about its lack of take up by SMEs in tourism. The EU Commission published a major study in 1997 entitled “Yield Management in Small and Medium-Sized Enterprises in the Tourism Industry”. The report examined YM to:

- Determine the extent of its use,
- Assess the prospects for improving the management of SMEs in tourism using YM,
- Examine YM systems which allow access to YM techniques by large numbers of businesses,
- Propose recommendations for possible action at the European, National and/or Regional level in the area of YM.

The report recommended:

- The need for cooperative arrangements to facilitate the development of joint yield management systems for businesses which lack the size, communications and marketing resources to carry out yield management independently,
- The need to develop yield management systems for local tourism offices as a potential means of providing the benefits of yield management to small businesses,
- That existing destination information systems should support the implementation of collective yield management,
- That a system to provide the benefits of YM to large numbers of SMEs should be funded at EU level as single municipalities could not finance the development of such a system alone.

1.10 Destination Yield Management (DYM)

YM is a potent competitive weapon and is an enabling technology of the Information Society in Tourism. The objective of YM is to maximise revenues from perishable assets in individual businesses. In the destination management model the tourism SME is less an individual organisation and more an integral part of the destination. This requires a complementary development of YM. This dissertation explores the concepts of Yield Management and develops a theory of Destination Yield Management (DYM). The thesis is that the concepts of YM in the form of DYM theory are useful for destination management and are of benefit to destination SMEs.

YM conceptualised as destination management activities, can inform decision making and thereby support destinations and their SMEs in maximising their revenues. The theory of DYM facilitates destinations and their SMEs to competitively operationalise the technology.

As Chapter 2 explains in more detail, YM has been developed in the context of large single corporate entities. Single corporate entities may have multiple outlets under one brand, i.e., many aircraft, many hotels and many fleets of automobiles. The visitor to a destination purchases an experience and this is intimately connected to the image and brand of the destination. Destinations require cooperation in order to be successful in these areas (Morgan, 2003). Those that have a single destination/management/marketing organisation are more successful (Prideaux and Cooper, 2002). Models of destination management, such as those advanced by Ritchie and Crouch (2003), described in Chapter 2, hold that the effective management of many issues (visitor management, environmental management, practical organisation) requires a holistic destination perspective.

In contrast to a single corporate entity a destination consists of multiple independent entities. The literature has focused on YM as having a large organisation (single corporate entity) perspective which may not be representative of reality in a small business (Edgar, 1998:263). The theory of DYM is developed for a large organised set of attractions, activities and enterprises - a destination coordinated by a DMO. In this regard the role of a DMO is somewhat analogous to the central office of a large hotel chain dealing with its hundreds of worldwide outlets.

1.11 Organisational Culture and Making Destination Yield Management Visible

As stated earlier, the set of management activities which constitutes YM was identified by the airlines initially focusing on overbooking as a solution to the problem of cancellations. Computerisation is an important condition for YM, and airlines had the scale and attendant resources to be early adopters of ICT. By contrast, the low level of importance assigned to ICT by certain segments of the hotel sector, vendor problems (Connolly, 2000:1) and cultural issues (Brooks, 1995:5) are cited as reasons for the slow spread of YM. Airlines differ in structure in that decision making is centralised in the area of pricing and reservations acceptance. American Airlines, with 600 aeroplanes and

thousands of flights per day, determine their rates and inventory allocation centrally. Local control may be strong within global hotel chains (i.e., a local franchisee may exercise a degree of independence). Likewise, airlines have technical requirements in the area of maintenance, scheduling, luggage handling and navigation which result in a higher level of inbuilt understanding of the technical issues of YM. As one experienced observer put it, "it's embedded" (Hopperstad, 1997).

Organisational culture and leadership play a role in YM implementation. In this regard theory supports communication, objective setting and acceptance. Theory facilitates the design of education programmes and supports the scoping of resource requirements.

1.12 Destination Management Organisations (DMOs)

Destination Management Organisations are the corporate vehicles through which destination management is delivered. The functional areas which have been identified within Destination Management (Ritchie, 2003:73), namely marketing, information research, organisation, visitor management, crisis management and resource management are supported by DYM. As stated earlier, the visitor to a destination purchases an experience which comprises a bundle of elements. The integrating nature of DYM serves to underpin the marketing of the destination experience. The forecasting outputs of DYM can support decision making in visitor management. DYM provides decision support to SMEs to assist in maximising their revenues. This strengthens the leadership role of the DMO and the organisational structure of the destination which can be viewed as a sustainable competitive advantage (Nadler, 1997). DYM maximises the use of information gathered by the DMO while suggesting ways in which the data collection and analysis may be more productively executed.

The existence of state of the art systems such as YM strengthen the negotiating position of the DMO in accessing finance and venture capital. DYM maximises revenue subject to the constraints of the natural and built environment and the host community, thereby, linking commercial decisions with Resource Stewardship.

Destination Yield Management will, of course, be enhanced by and help drive the existence in the future of a federation of a European Tourism Information Systems network with user friendly open access to consumers, suppliers and other stakeholders.

Within each destination it is envisaged that similar networks of tourism information systems apply. The information chain for the network involves collection, authentication, standardisation, processing and presentation to monitoring, planning, forecasting and marketing. It is envisaged that such networks assist in the integration of all components of tourism packages: accommodation, travel, event information, booking and payment.

A component of DYM – the eCommerce model of Tourism SMEs is incorporated into the KNITE Green Paper which informed the decisions of the types of projects to receive EU funding under the IST Fifth Framework Programme (Mulvey, Fedra, 2000).

1.13 DYM and Information Assets

Data collected by the DMO from destination enterprises, other stakeholders and suppliers, such as tour operators, comprise a valuable asset, so called information assets, of the destination. DYM depends in part for its success on analysis of consumers, which informs segmentation, pricing, inventory allocation and forecasting. The eCommerce model, which is a premise of DYM, facilitates a consistent view of the tourist across many points of interaction with the destination and within the visitor experience. In turn, this provides insights into who the customers are, what they want and their behaviour. The model serves to liberate these trapped assets currently held as data within many elements of the destination, such as enterprises, local government services and agencies. DYM provides the motivation and the additional revenues necessary to fund an ICT destination system development such that there is an ever increasing level of integration of IT networks within the destination. This facilitates accessing and delivering a view of the customer across many points of interaction.

This is analogous to the challenge faced by multinational hotel chains who also strive to monitor international corporate guests who use a range of their units around the globe.

1.14 YM and Consumers

In theory, consumers are well served by YM as it endeavours to match prices and availability to demand and willingness to pay. The level of precision and knowledge of the consumer's need and behaviour is therefore far greater than is typically present or required in businesses which do not practice YM. This greater precision enables organisations to make capacity available profitably at low prices to consumers who

otherwise could not afford it. Competitive pricing practices are important in tourism (Braun et al., 1992) and YM aids and informs precision in price point decisions.

YM facilitates overbooking and minimises denied bookings, thereby saving the consumer the economic cost of no shows. YM requires transparent pricing thereby contributing to consumer confidence. YM is designed to avoid situations where consumers are subjected to unacceptable price levels or “gouging”.

1.15 Investment Costs of ICT

The complexity of today’s operating environment, the storage of multiple profiles of the same customer depending on the nature of travel, individual account and distribution involve enterprises and destinations as intensive information users and producers. There is a need for systems and supporting infrastructure.

DYM provides additional rationale and impetus for enterprises to move from the current situation, of using many categories of technology based systems with requirements for duplicate or incompatible infrastructure. Services provided on a destination wide basis spread the costs of development, of key elements of infrastructure, such as Wide Area Networks (WANs), Local Area Networks (LANs) and common data management platforms. These push forces will be pulled by vendors who will see the rationale for either a major Research and Development (R&D) investment to provide a solution or at a minimum to ensure that their products, albeit competing, will operate to common standards. It is the view of larger hotel chains that unless the vendors change and upgrade their products for hospitality that the investment costs of financing existing multi systems and different infrastructures is not sustainable (Connolly, 2002).

1.16 The Role of this Dissertation in the Development of Tourism Education and Research

The status of tourism as a field of study is the subject of debate (Jafari, 1977; Leiper, 1981; Jafari, 1989 and Echtner and Jamal, 1997 in Jennings, 2001:4). Its beginnings are in economics, as the visitors were counted and their spending assessed for multiplier effects. A multidisciplinary approach ensued as geographers, sociologists, marketers, financiers and statisticians examined the phenomenon from their varying perspectives. Przeclawski (1993 in Jennings, 2001:4) points out that such an approach is less likely to

lead to synthesis as findings tend to be discipline specific. An interdisciplinary approach advocated by Leiper (1989 in Jennings, 2001:4) has the merit of drawing on many disciplines and thereby facilitating greater insight and understanding. Weaver and Oppermann (2000) promotes this as a necessary prerequisite to develop a fusion of perspectives and progress tourism as a discipline in its own right. Their historical perspective on tourism and a view of how it is advancing is summarised in Figure 1.1.

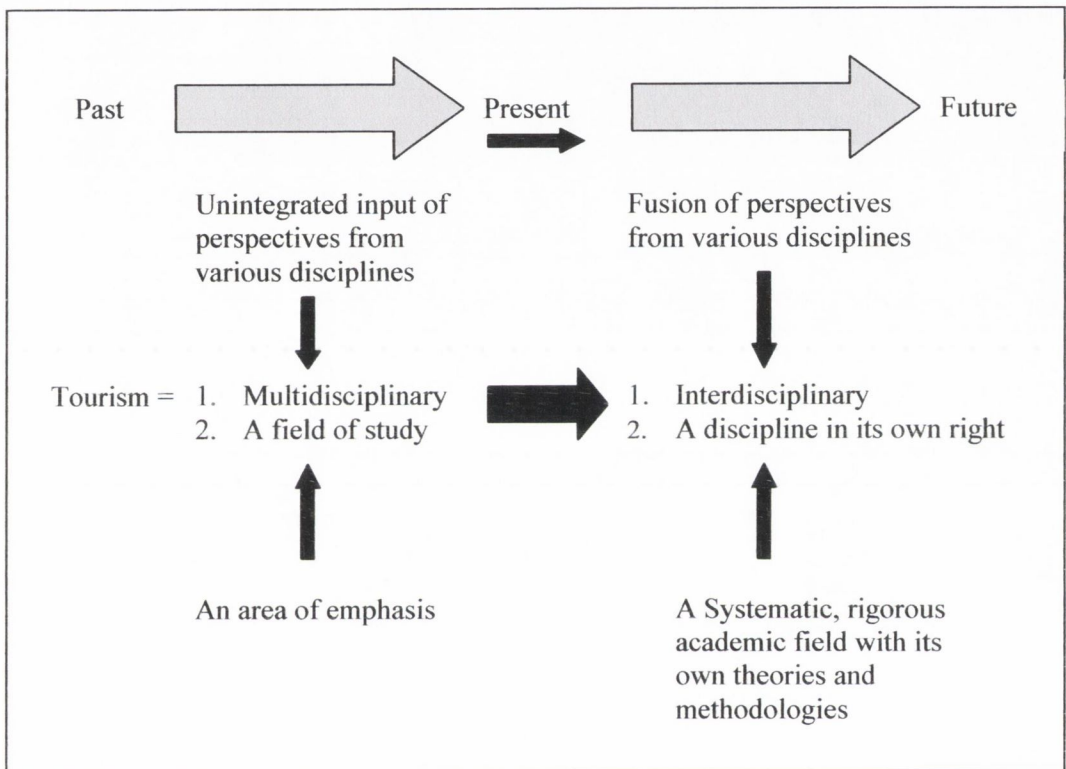


Figure 1.1 The Evolution of Tourism Studies Towards Discipline Status

Source: Weaver & Oppermann, 2000, from Jennings, 2001.

Destination Yield Management by definition is interdisciplinary, drawing upon economics, marketing, management, statistics, operations research and coordinates functional areas in enterprises.

Strengthening the emerging discipline strengthens tourism research and enables it to be more appropriately represented in the national research effort. It is notable that of the six Foresight studies carried out by the Irish Government in 1999 (ICSTI) tourism was excluded despite contributing almost 6% of GNP. A combination of discipline building and additions to the stock of knowledge enable the sector to respond to the complex and

competitive environment in which it operates. Rigorous and continuous research is vital to inform decisions on social, cultural, environmental and economic problems in tourism consistent with sustainability. Innovative responses which resonate with the often conflicting contexts of tourism are more likely to emerge from a richer theory base. It is difficult to envisage robust decisions unless the tourism sector is firmly based on the national research effort. Of itself this increases national capability in research. By developing a theory of DYM this research empowers tourism businesses with a specific approach which maximises revenue. The development also has the effect of building tourism education and research which of itself advances the sector as a whole.

1.17 To Whom is it Important?

1.17.1 National Tourist Authorities

National Tourist Authorities speak of “high yield tourists” and “increasing visitor spend” but this is pursued through focusing on segments in the upper income brackets. DYM which is coordinated at DMO level is a means to actively support regions and destinations to maximise their yield. DYM, through maximising yield, also enables capacity to be offered at low prices, thereby accessing new markets.

1.17.2 Local Governments and their Planners

Local governments have a stake in the prosperity of the region. Stronger revenues provide funding for property rates and local taxes. In addition, visitor spending on attractions make infrastructural developments of pathways, public seating, roads and public transport viable in areas of low population. Likewise, forecast output from DYM aids in planning services such as water and waste.

1.17.3 Destination Planners and Designers

As stated already the visitor purchases a destination experience. In this regard any approach which supports an integration of marketing activities provides data which adds to knowledge about the visitor. This knowledge can be used to increase capacity, deliver value or add new features which increase revenue. The comparative data from other destinations gathered by DYM aids in pinpointing which destination to emulate.

1.17.4 Technology Vendors and Developers

ICT for SMEs relating to DM has not attracted the attention and associated research and development funding from the large vendors, such as IBM and EDS. This has resulted in products which have poorly served the industry and may partially explain why sectors within tourism such as hospitality have been identified as slow to adopt ICT. Other segments of the hospitality industry, owners and managers, assign a lower importance to technology (Connolly, 2002). Finally, cost is a factor (Brooks, 1995; Connolly, 2002). Whatever the reason, a theory which strengthens understanding aids the vendors in designing their systems. It aids the purchasers who can see how the ICT system should fit with a wider scheme.

1.17.5 Destination Management Organisations

In order to provide effective leadership DMOs need to provide support which is seen as relevant and of benefit to its stakeholder enterprises. DYM provides information to SMEs which assists them in maximising their revenues. In addition, DYM contributes to destination management through improved information flow supporting daily operations, information which aids a more finely tuned focus on the customer. Revenue maximisation is partially a function of available capacity and DMOs may have a role in guiding the seasonal opening or closing of individual hotels.

1.17.6 Academics

As tourism is an emerging discipline, theory strengthens its advancement and provides a basis for further research in its development. An ever increasing body of theory strengthens the discipline, creating more opportunities for individuals to engage in and specialise in this field. This increases the volume of tourism research funding applications, promoting a virtuous circle which adds to the knowledge base. More specifically the concept of destination management is relatively recent in the literature and DYM theory strengthens the stock of knowledge in this area.

1.18 Structure of the Dissertation

The chapters of the dissertation are structured as follows.

Chapter Two: The literature for Destination Management and Yield Management is critically reviewed. Key concepts and theories underpinning YM are described. Deficits in the literature are identified. A definition of DYM is developed.

Chapter Three: The approach and methodology used in the theoretical and empirical phases of the research is described. Key concepts and processes in theory building are described. The process of how DYM was developed is explained. The role of in-depth interviews as a first step in the validation is justified.

Chapter Four: This chapter is the core of the thesis. It describes a new theory for tourism, Destination Yield Management. There is a Statement of Theory and constructs, variables, attributes and dynamic interactions of the theory are explained. The operational function of DYM and the accompanying policies are set out.

Chapter Five: This chapter comprises the empirical phase of the research. It analyses the content of the in-depth interviews. It categorises the findings and shows how they support DYM. Using content analysis three themes, which are pervasive in the interviews are isolated.

Chapter Six: The findings from the in-depth interviews in Chapter Five are applied to make modifications and strengthen the theory. The academic contribution of the dissertation is outlined, conclusions are drawn and recommendations are made. Finally, future research directions are proposed.

CHAPTER TWO

REVIEW OF LITERATURE, PRINCIPAL CONCEPTS, THEORIES AND MODELS

2.0 Introduction

This chapter identifies the principal concepts, theories and models which are germane to this research. The structure of the chapter is as follows:

- There is a general introduction to tourism through the tourism system and the tourism experience,
- Definitions of open destinations, comprising SMEs requiring destination management organisations (DMOs) and destination management systems (DMSs) are provided to illustrate the integral and interdependent nature of tourism and the consequent implications of demand on the supply side. The focus narrows to a model of competitive destination management,
- Some components of the competitive destination model are critically reviewed to determine the extent to which traces of YM may be embedded in existing models,
- The yield statistic which is the most visible and common measure of the success or otherwise of a YM system is described,
- The economic theories of consumer surplus, market segmentation and price discrimination which provide the essential underpinnings of YM, are described,
- The core managerial activities, pricing, forecasting, inventory allocation and reservations, which are coordinated by YM, are identified,
- The body of literature which consists of the published stock of knowledge in YM is reviewed. The contribution of the literature is categorised and reviewed under two headings: Technical and Implementation,
- A definition of yield management for destinations is derived which provides the basics for the theoretical type conjecture of YM for destinations,
- Conclusions are drawn.

2.1 Tourism

Tourism, since its inception as a field of study in the 1960s, has been explored in the context of a number of dominant paradigms, namely environmentalism and tourism experience/consumer behaviour (Ritchie and Crouch, 2003), while other studies are sectoral and focus on hospitality, attractions, information services and transportation, often from a disciplinary perspective.

2.2 The Tourism System

The tourism phenomenon has been defined as a system (Leiper, 1979) with five elements: tourist, three geographical elements (generating region, transit route and destination region) and a tourist industry. Within this system the process of tourism is shown as partially industrialised, and the tourist industry to contain sectors with functional and spatial connections across the system. The six functional sectors within the system are marketing, carriers, accommodations, attractions, miscellaneous services and regulation. The connections between these functional sectors are informal where consumers obtain services from independent firms and facilities. Formal connections exist between principal agency relationships and common ownership of units within different sectors, such as airlines owning hotels and car rental companies. Each of the five inputs into the tourism system in Figure 2.1 are described.

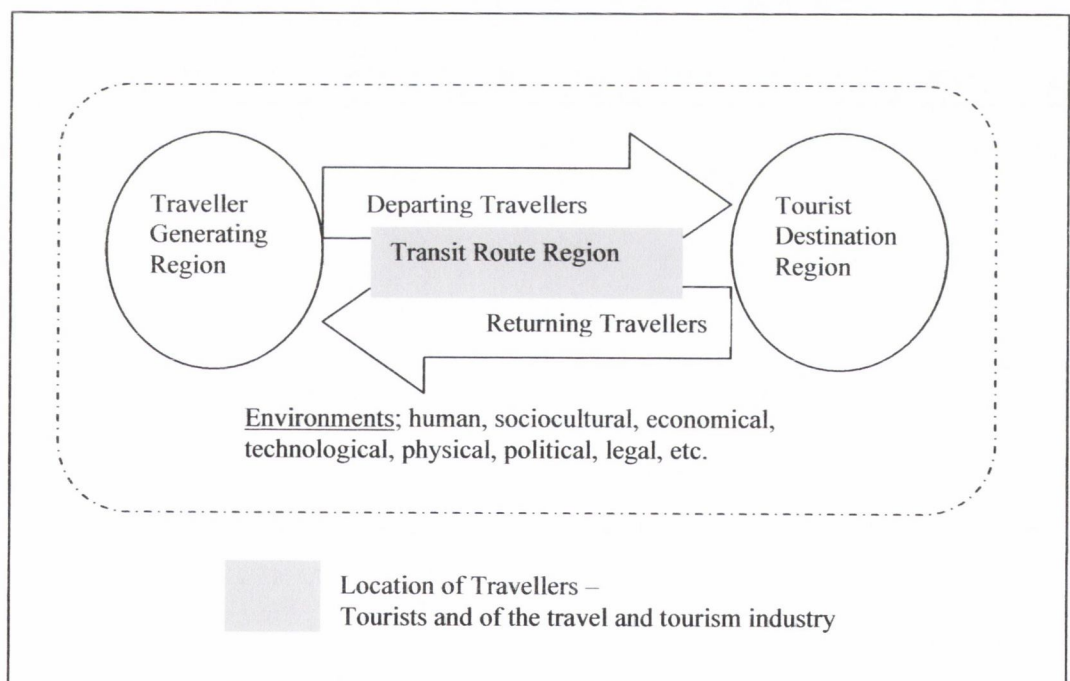


Figure 2.1 Tourism System (Leiper, 1979).

2.2.1 Tourists

Tourists are the focal human element of the Tourist System. In 1963, the United Nations recommended definitions of 'visitor' and 'tourist' for use in compiling international statistics:

The term 'visitor' describes any person visiting a country other than that which he/she has his usual place of residence, for any reason other than following an occupation remunerated from within the country visited. This definition covers:

'tourists' – temporary visitors staying at least twenty-four hours in the country visited and the purpose of whose journey can be classified under one of the following headings: (a) leisure (recreation, holiday, health, study, religion and sport), (b) business, family, mission, meeting.

'excursionists' – temporary visitors staying less than twenty-four hours in the country visited (including travellers on cruise ships) (IUOTO, 1963 from Leiper, 1979:393).

This is the definition approved by the WTO and they encourage countries to use it.

2.2.2 Traveller Generating Region

The generating region is the location of the basic market of the tourist industry and this is where promotion takes place. In addition to the pull of a destination, the generating region may feature some push factors which may stimulate the temporary outflow. Italians leave Italy to escape the heat of August. Middle Easterners leave their countries for the same reason.

2.2.3 Tourist Destination Region

Tourist destination regions are locations which attract tourists to stay and have features which inherently contribute to that attraction. In this context the attraction can be regarded as the anticipation by the tourist of some qualitative characteristic which he/she wishes to experience personally. Destinations are the location of the most significant and dramatic aspects of tourism and of many parts of the tourist business: accommodation, services, entertainment and recreational facilities.

2.2.4 Transit Routes

Transit routes are the location of the main transportation component of the tourist industry. They are the paths linking the generating regions with the destination. They may include convenient stopover points or stopovers for attractions en route.

2.2.5 The Tourist Industry

The tourist industry is the industrial element of the system, consisting of all firms, organisations and facilities earning a significant portion of their revenues from tourists and intended to serve the specific needs and wants of tourists. That intention is manifested by a marketing and design orientation of the individual units forming the industry. Tourists, therefore, according to this definition, are not necessarily dependent on a tourist industry. They may use services which are not part of the tourist industry such as freight ships. The tourist experience is derived in total from the tourist industry, firms not in the tourist industry and other elements derived at no direct cost, such as enjoyment of landscape. In this regard, tourism is a rather fragmented phenomenon which relies on collaboration, cooperation and coordination to deliver a coherent experience. The nature of this tourism experience, and its relationship to destination management, is explored in the following section.

2.3 The Tourism Experience

The generalised concept of the marketing of experiences is driven by competitive intensity and a consequent search for differentiation. Technology is also a driver as it may be a central part of many experiential products. At the level of goods and services consumers simply purchase a set of intangible activities carried out on their behalf. Experiences involve personal engagement with services providing a stage and goods serving as props in a memorable event. Much follows from this, i.e., experiences are personal (quality, authenticity issues) and memorabilia is profitable. For companies, the marketing of experiences requires going beyond the function of connecting with customers. It involves engaging them in a personal and memorable way. British Airways competes on the basis of providing such an experience (Pine and Gilmore, 1999). In Disneyland, cast members stage a complete production of sights, sounds, tastes, aromas and textures to create a unique experience. At the level of national economies, experiences have been elevated to a stage of development with the progression occurring from goods to services to experiences (Pine and Gilmore, 1999).

Whilst the terminology of personal engagement and memorable events is common to company staged experiences and tourism experiences, it does not do justice to either to view them as strictly comparable consumer products. However, what is comparable is the level of organisation, professionalism and detail required for both. A high degree of

collaboration and expertise is required within destinations to deliver some experiences, e.g., events such as the Rio Carnival and the Cork Jazz Festival. Other experiences, such as a visit to the Newgrange Interpretive Centre, are more self-contained. Consideration of the tourist experience finds expression in destination management through the projection of a particular image of the destination. The greater the collaboration, partnership and cooperation between stakeholders in destinations, the more successful this will be. This bears on the product formulation underlying the image. A destination promising access to countryside and integrated transportation requires an organisation to secure the willing cooperation of landowners and other stakeholders. A destination promising access to all attractions through one smart card requires all attractions to support the initiative through appropriate price and the necessary training and entry procedure at point of access (Medlik and Middleton, 1973). Ski areas require the support of farmers, local government, road clearance, rescue services and avalanche control, or the shared provision of such services between public and private agencies (Manhart, 2000). Collaboration, cooperation and coordination are, therefore, a necessary part of marketing destinations. In this regard, any scheme such as YM, which deepens these elements of destination management, has a symbiotic effect. Improvements to destination management, which inform product development and promotion more closely attuned to each segment, enhance competitiveness.

2.4 Destinations

2.4.1 Introduction

Destinations may be classified as open or enclosed (Middleton, 2001:465). Enclosed destinations, such as Club Med or Disneyland, are corporate entities with defined boundaries, a management structure and gated points of access. In open destinations, visitors and residents mingle and there are private and public stakeholders such as local government and the host community. As the visitor purchases an experience there is a need for destination wide cooperation and management of some activities, which is provided by a Destination Management Organisation (DMO) and its IT infrastructure, the Destination Management System (DMS). These will be discussed in more detail in sections 2.5.1 and 2.5.2. DYM is developed in the context of open destinations which have a multiplicity of SMEs.

The fragmented yet interrelated nature of tourism with its multiplicity of SMEs, community and government involvement has resulted in destinations becoming a unit of study and focus for research (Ritchie and Crouch, 2003:10). From a managerial point of view, a large amount of the decisions on the supply and demand side relate to destinations. It is where the most significant and dramatic aspects occur (Leiper, 1979). It is also the location of many parts of the tourist business – accommodation, services, entertainment and recreational facilities.

Destinations may be viewed in spatial terms with geographic boundaries or from an individual consumer's point of view. In the context of a spatial dimension or in geographic terms tourist destinations may 'be defined as locations which attract tourists to stay temporarily, and in particular those features which inherently contribute to that attraction' (Leiper, 1979:397).

In consumer terms, destinations are 'areas which consist of all the services and offers a tourist consumes during his/her stay' (Bieger, 1998:7) or content (product) as well as space (region) which meets his/her requirements (Pechlaner and Weiermair, 1999). Destinations target particular segments through their promotional campaigns. However, the individual consumer may incorporate offerings from not just one but a number of destinations. In this regard, there may not be a precise correspondence between the supply side view of a destination and the more holistic view of the consumer, which is based on the tourist experience. The marketing challenge for destinations is to align their products and services as precisely as possible to the needs of the tourist.

A destination may be identified by reference to the following four elements represented in Figure 2.2.

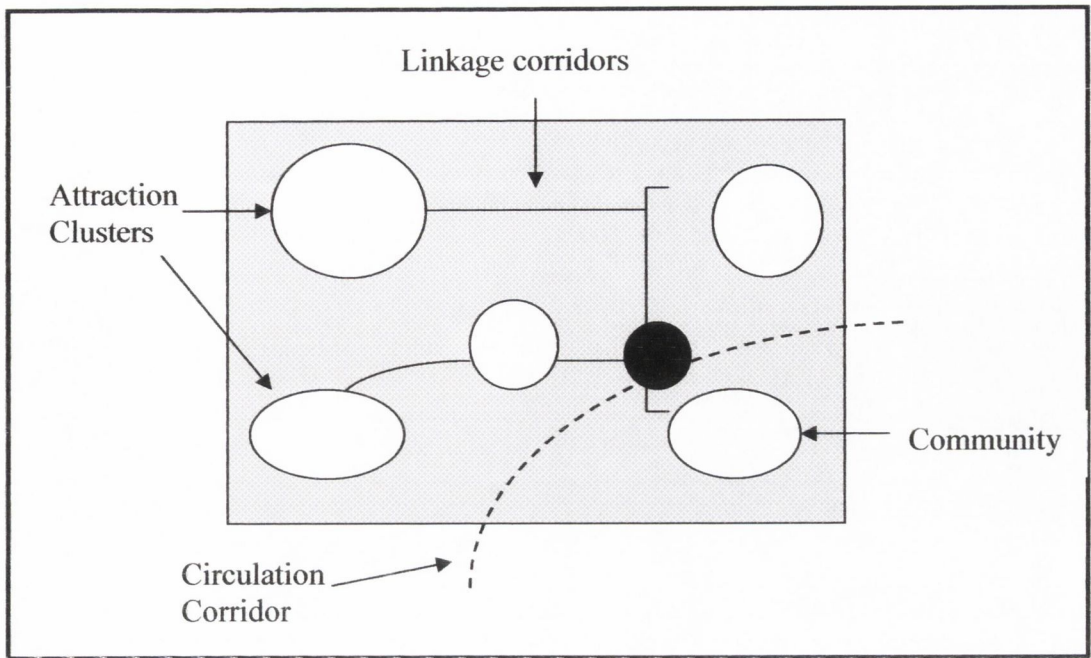


Figure 2.2 Destination Zone Concept

Source: Gunn, 1988.

Each of the elements of this figure are described.

2.4.2 Attraction Clusters

An attraction cluster or base consists of resources available for touristic consumption; they can be natural resource based, cultural or manmade structures. Although people travel to areas for purposes other than to visit attractions, such as to visit friends and family, there is no definable tourist area without an attraction base. Attractions provide things to see and do and are a significant factor in the tourist experience. Attractions can be evaluated according to quality, authenticity, uniqueness, activities offered and drawing power.

2.4.3 Community

A community can be part of the attraction base, but its primary function is to provide services demanded by tourists. An area can be endowed with an attractive resource base, but still suffer from lack of visitation. Accommodation facilities, restaurants and retail shops are a few of the services necessary for a community to function as a destination area. Lack of these services results in short lengths of stay, low expenditures and limited opportunities for ancillary attraction development.

2.4.4 Circulation Corridor

Moving people into and out of an area with minimum disruption is a necessary component of a destination zone. A primary destination zone is usually serviced by more than one type of transportation system. Areas which rely on one type of transportation may find themselves limited with respect to the numbers and type of visitors they can attract. The circulation corridor is represented by the dotted line in Figure 2.2 and the black circle represents a transportation hub.

2.4.5 Linkage Corridor

Linkage corridors connect the attraction clusters to the community. Linkages may take the form of a transportation system dedicated to moving people between attractions and the community, or they may be more promotionally oriented to make visitors aware of the various attractions within an area. The transportation hub integrates the linkage corridors with the circulation corridor.

If all four elements exist within an area, it may be designated as a destination.

2.5 What is Destination Management?

Destination Management has been defined as a process comprising a number of management functions, including organisation, quality of service/experience and resource stewardship (Ritchie and Crouch, 2003:183). These are set out in full in Figure 2.3. The process may be carried out by a combination of local government, local representative groups and the destination management organisation (DMO). Models of sustainable destination competitiveness are premised on partnerships and community alliances which tie in SMEs to the overall management objectives of a destination.

The aim of the process is to arrange the supply side so that it matches the demand for the aggregate of bundles of elements selected by the consumer. The supply side consists of the capacity of the natural, built, social and cultural environments, the destination facilities and attractions.

2.5.1 Destination Management Organisations (DMOs)

Destination Management is operationalised through what are referred to as DMOs - which may mean Destination Marketing Organisations or Destination Management Organisations. In this dissertation the M refers to Management, and Marketing is taken to be a subset of Management. As referred to in Chapter One some destinations experience a high level of cooperation/collaboration and some studies have shown such collaboration to be viewed as the basis for success.

A DMO may be a public organisation, private or combination of both but it should have the following characteristics.

- Coordinator and director of the complex system which makes up the destination,
- Recognised as the leading organisation within the destination,
- Influencer of private and public sector decisions and actions impacting on the visitor experience,
- Initiator of programmes to stimulate appropriate supply development,
- Flexible and dynamic in response to market.

(abbreviated from Ritchie and Crouch, 2003:175).

Where there is a high degree of shared vision, interaction and communication amongst stakeholders, DMOs are likely to occupy a pivotal role. DMOs vary in terms of their impact, funding and local leadership. This dissertation focuses on the destinations where they exist in their mature fully operational form including distinct operating links with tourist local enterprises. The effectiveness of a DMO is enhanced by the information they have at their disposal and how this can be brought to bear on enhancing competitiveness through informed management and marketing decisions. The capture, storage and retrieval of information, a critical part of YM, relies on the destination management system (DMS) which is discussed in the next section.

2.5.2 Destination Management Systems (DMSs)

Destination Management Systems (DMSs) can be described as the IT infrastructure of the DMO (Sheldon, 1997, in Collins and Buhalis, 2003:202). Such information systems are also referred to as Destination Management Information Systems (DMISs) (Ritchie and Ritchie, 2002). A DMS is considered to consist of a product database (attractions,

accommodation), a customer database and a booking reservation system (Baker et al., 1996). They should be able to act as an enabling mechanism to integrate the different services and products from the tourism industry (Collins and Buhalis, 2003). They should be capable of handling both pre-trip, post arrival information requests, but should also integrate an availability and booking service (Buhalis, 1997; Frew and O'Connor, 1998).

The central role of ICT in distributing tourism, the demand for information by the consumer coupled with the inability and/or lack of capital of SMEs to adequately resource extensive electronic distribution has led to the growth of public and/or quasi-public and private DMS systems. Consumer expectations in the Information Society, and the ease with which IT can facilitate products being accessed and combined according to individual need, make DMSs a critical component for success (Sheldon, 1993). DMSs improve the competitiveness of tourism by providing decision support for the marketing of tourism products and services (Baker et al., 1996; Schertler, 1994; Stanton, 1992).

The parallel and complementary development of the Internet with DMSs equipped the consumer to bypass intermediaries such as travel agents and tour operators. This presented the possibility of DMSs developing a competitive capability similar to that enjoyed by the computerised airlines and hotels, and for DMOs leveraging their DMSs to proactively communicate and promote directly to the consumer. As the level of direct communication and electronic interaction increases, the DMO builds up a formidable knowledge of each market segment. The result has been a mixture with enterprises still choosing to deal with intermediaries and some destinations in countries like Austria adopting sophisticated DMSs, which are linked to public/private national DMSs such as TisCover and Gulliver (Ireland).

Funding of DMSs has been the focus of debate and remains a critical issue (Socher, 2000; Collins et al., 2003). DMS as components of public or quasi-public bodies may encounter difficulties in charging fees. A survey of 73 DMSs in England indicates that strategically the direction is towards commercial entities. Such fees are largely dependent on facilitating booking transactions. As DMSs are comparable in function to Global Distribution Systems (GDSs) and are also regarded as competitive necessities, a principle aim must be to provide the customer with a hassle-free means of booking his/her accommodation (Sussman and Baker, 1996:101).

The more ambitious projects (DMSs), therefore, have hoped to emulate the success of GDSs in the airline and hospitality industries (Sussman et al., 1996:102). Yet, despite all the benefits of DMS and GDSs, SMEs do not necessarily flock to maximise their capability. There is a notable corresponding phenomenon in some large hotel chains where individual properties, and likewise hotels within chains, are not always necessarily persuaded and amenable to the benefits of technology (Bramwell, 2004). The chorus of acclaim by academics, therefore, and the widespread acceptance of the concept of DMSs are sometimes in contrast to the slowness with which some SMEs adopt new technology and its associated distribution opportunities (Morrison and King, 2002).

Competitive destination management takes place in the context of social, environmental and economic sustainability. Before considering a detailed model of competitive destination management, sustainability is briefly discussed.

2.5.3 What is Sustainability?

McCool et al. (2001:125) defines the concept of sustainability as, ‘sustainability – and its derivative, sustainable development – are closely linked with management of natural environments, particularly protected areas, and the human communities linked economically, politically, and culturally to those environments.’

This definition captures the interdependency of the social, economic and environmental dimensions of sustainability. The manner in which these are managed, therefore, bears on competitiveness. Yet, there is no agreement on the definition of sustainable tourism (McCool et al., 2001:125)

However, the lesson from sustainability for tourism is to use and develop integrated policies, planning models and regulations which result in the social and natural and economic environment being enhanced (Godfrey, 1996). This can occur through improved living standards, measures to safeguard and restock habitats and avoidance of holiday packages which may cause irreparable degradation to the environment and overwhelm local culture. The latter may be an integral attractor in a destination, yet over-rapid development with little local ownership/investment and employment exacerbates negative impacts. This has prompted the development of processes and frameworks to monitor and shape such impacts (Vellas, 2000). Where there is a mismatch of supply and

demand leading to overcapacity or congestion, this may result in high prices or lack of viability.¹ Effective DMOs are well placed to achieve stakeholder involvement, harness and apply innovative and creative thinking to vacation packages and deploy a DMS to support monitoring and communications of codes of practice and local agreements. A model of a competitive destination is considered in the section which follows. This model comprehensively sets out the functions of Destination Management which may be carried out by a DMO supported by its DMS.

2.5.4 Destination Management Models

A conceptual model of destination competitiveness and sustainability is presented in Figure 2.3. This model identifies nine functions which comprise Destination Management as developed by Ritchie and Crouch (2003). The terms used in the model are explained and this section briefly illustrates how YM will contribute to this model.

¹ The Irish Government has launched many innovative schemes to encourage the building and refurbishment of tourism infrastructure, particularly the accommodation stock (Mulvey, 2001). An innovation tax based incentive scheme, the Business Expansion Scheme (BES) operated in Ireland from 1986 to 2000. It enabled private individuals to claim tax relief on monies invested in certain categories of projects including hotels. Written into the scheme was a proviso that a specified % of the investment be set aside for international marketing for the first three years. This was in part to discourage hotel projects which merely intended to piggy back on existing demand or simply serve the domestic market (Mulvey, 2001).

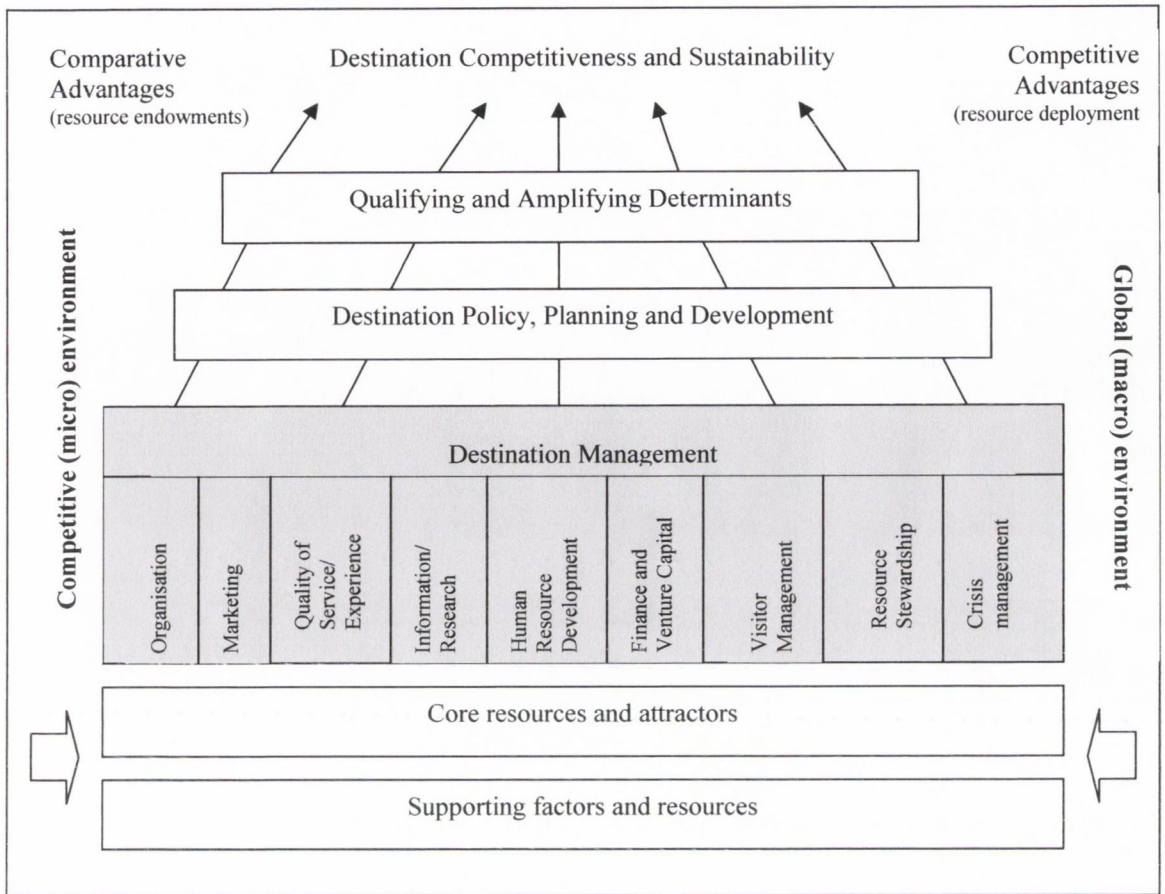


Figure 2.3 Conceptual Model of the Competitive Destination

Source: Ritchie and Crouch, 2003:183

A number of the terms used in Figure 2.3 are described as follows:

Comparative Advantages: This refers to the differences in the endowment of factors of production between one destination and another. This includes natural and created endowments, namely, Human Resources, Physical Resources, Knowledge Resources, Capital Resources, Infrastructure and Tourism Superstructure (hotels), Historical and Cultural Resources.

Competitive advantages: These advantages result from the manner in which resources are deployed and targeted at specific segments, i.e., a state of the art multimedia interpretive centre which prolongs visits to an ancient settlement and permits greater volume, or the use of the seashore to develop golf links.

Global (Macro) environment: This has been discussed already in this chapter and Chapter One. It incorporates the forces of technology, sustainability and the consumer.

Competitive (Micro) environment: This refers to the destinations perceived to be the immediate competitors.

Supporting Factors and Resources: This may include state aid to support a DMO, expertise extant in the destination amongst the stakeholders, a culture of cooperation, success in coping with crisis situations, availability of skilled human resources.

Core Resources and Attractors: These underlie the motivators to travel to a particular destination and comprise physiography, activities, culture/history, special events, superstructure, entertainment and market ties (human relationships between guests and locals).

In addition to identifying the nine functions of destination management, the conceptual model, in Figure 2.3, also identifies other major components of the competitive destination. The elements of the model are underpinned by 36 components and appropriate consumer and industry indicators. These are used to measure consumer reaction and as a benchmark for industry.

The pervasive impact which YM may have on the conceptual model of the competitive destination may be illustrated with reference to the information needs of the components and indicators for qualifying and amplifying determinants which are set out in Table 2.1 as follows.

Table 2.1 Components of Qualifying and Amplifying Determinants

Subjective Consumer Measures	Objective Industry Measures
Component: Interdependencies	
<ul style="list-style-type: none"> • Likelihood of traveller diversion en route • Event (e.g. riots) in substitute or complementary destinations can effect visitation 	<ul style="list-style-type: none"> • Need to pass through /stop-over in another destination en route • Use of an international reservation system (airlines/hotels)
Component: Awareness/Image	
<ul style="list-style-type: none"> • Awareness levels re: destination • Nature of perceived image of destination • Strength of consumer image of destination • Consumer attitudes towards destination 	<ul style="list-style-type: none"> • Relative level of awareness compared to competitors • Accuracy of potential visitor image • Relative level of knowledge of destination compared with competitors • Relative liking of destination compared with competitors • Positioning of destination relative to competitors
Component: Cost/Value	
<ul style="list-style-type: none"> • Consumer perceptions of value received for a range of travel products and services • Consumer reactions to advertising messages on value for money spent 	<ul style="list-style-type: none"> • Price levels as destination as per Travel Price Index • Price levels at destination as compared with other destinations • Exchange rates at a given point in time and over periods of time • Advertising expenditures to convey message of value for money spent
Component: Carrying capacity	
<ul style="list-style-type: none"> • Perception of overcrowding • Perception of environmental impacts • Perception of social impacts • Perceived conflicts between different market segments • Difficulties making reservations or achieving access to the destination 	<ul style="list-style-type: none"> • Occupancy rates • Yield on transportation modes • Visitor number capacities at specific attractions • Results from scientific studies of the environment with respect to the impact of visitor numbers • Results from resident surveys indicating tolerances to visitor levels and attitudes towards tourism

Source: Ritchie and Crouch, 2003:259

The information and data needs of the indicators in Table 2.1 overlap with those of YM. For example the level of information and detailed knowledge required to support decisions and evaluations of the objective industry measures regarding traveller diversion and usage of an international reservation system, usage of travel statistics/research can also enrich the type of analysis required for YM in the destination.

The depth and level of understanding required to make judgements on these areas, such as relative levels of awareness, inform estimates of demand generated by promotional campaigns, a critical aspect of forecasting for YM.

Pricing is one of the activities coordinated by YM. In the DM model the information gathered is necessary to aid setting prices at levels designed to create demand for targeted volumes of visitors at a range of price points, an integral component of YM. A further example is contained in the cost/value component.

Yield or revenue in relation to enterprises is not identified in the model although yield on transportation nodes is incorporated. The information gathered here on occupancy rates is commonly gathered in destinations. It is useful for historical analysis to underpin forecasts, and the calibrating of visitor carrying capacity. That revenue is not mentioned is analogous to the situations identified in the airlines (Cross, 1997), namely that capacity utilisation and pricing are carried out and measured as separate functions.

2.6 The Yield Statistic

The motivation for the yield statistic is the need to consider two important aspects of operational management and financial return. What is commonly referred to as utilisation or occupancy is a measure of how comprehensively the facilities or assets are deployed or worked during a specific time period, such as daily, weekly, monthly, yearly. Revenue is a measure of cash flow and a prerequisite of annual profitability. Considered in isolation these measures can be deceptive – facilities may be fully utilised producing low revenues. In the case of a hotel, a high average daily rate (ADR) may mask a small number of rooms sold.

For this reason ratios of occupancy and average rate are combined into a single figure and expressed as a percentage – the yield percentage. An example is provided below for a hotel with one type of room over a twenty four hour period.

$$\frac{120 \text{ Room Nights Sold}}{165 \text{ Room Nights Available}} = 72.7\% \text{ Occupancy or Utilisation Rate}$$

$$\frac{\text{€47 Average Daily Room Rate}}{\text{€82 Rack Rate (Normal full price)}} = \frac{57.3\% \text{ Percentage of Rate or Price}}{\text{Price Efficiency}}$$

Combine the ratios

$$\frac{120 \text{ Room Nights Sold}}{165 \text{ Room Nights Available}} \times \frac{\text{€47 Room Rate Realised}}{\text{€82 Room Rate Potential}} = 41.7\% \text{ Yield}$$

An important point to note, for clarity in fully understanding Yield Management, is that a hotel may have a range of room types. In such a case, the occupancy rate percentage figure should be calculated separately for each room type with a separate yield statistic for each room type. This is because the room rate potential will differ for each room type and occupancies may differ.

One composite yield percentage for a hotel with a number of room types may be calculated by aggregating the revenue realised for each room type and expressing it as a ratio or percentage of the aggregate of potential revenue.

Making these distinctions is a useful lead in to consumer surplus theory which will be covered in a later section and which lies at the core of YM.

Where the yield percentage is 100% it means that every unit of capacity has been sold at the highest posted rate and capacity. This statistic is used to set operational targets. Where companies such as hotels are using a YM system daily targets are set by reference to the revenue which is forecasted for each rate. Achieving this target is regarded as maximising revenue and hotels may undershoot or “beat the system” and overshoot (Kocsi, 1994).

Perdue (2002) suggests that occupancy rate and price efficiency tend to be negatively correlated and provides an example shown in Table 2.2. He asserts, ‘prices increase (i.e., the availability of discounts decrease) sales generally tend to decrease’. Using the example of a resort he develops the point by suggesting that a resort might choose to operate at a slightly higher efficiency and lower occupancy (B), thereby medium variable costs with relatively little change in yield.

Table 2.2 Hypothetical Yield Table (In percentages)

Price Efficiency	Occupancy Rate	Yield
20	100	20
30	90	27
40	80	32
50	70	35C
60	60	36A
70	50	35B
80	40	32
90	30	27
100	20	20

Source: Perdue, 2002

It may also be appropriate to examine the table for supplementary spending and possibly to opt for a lower yield % and higher occupancy % (Norman, 1997, Adams, 2000).

2.7 Economic and Business Theories Underpinning YM

2.7.1 Consumer Surplus

The theory underpinning willingness to pay (Dupuit, 1844) or consumer surplus (Marshall, 1890) combined with market segmentation, forecasting techniques and inventory allocation is central to YM. Consumer surplus may be explained by reference to the demand curve for a particular room type in a hotel.

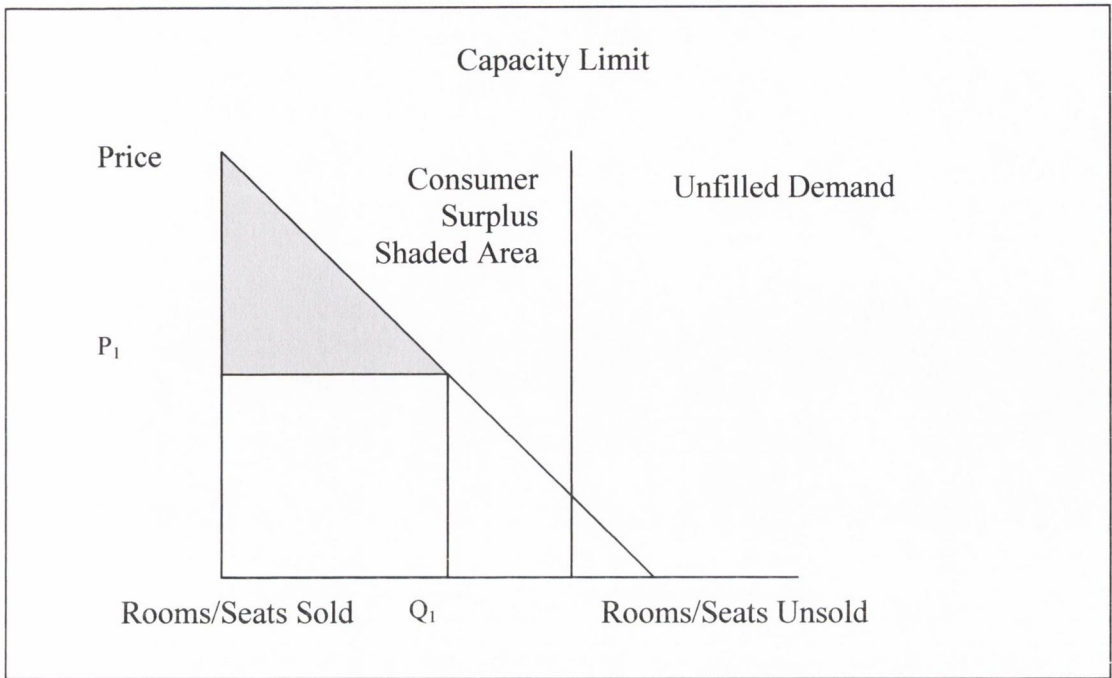


Figure 2.4 Demand Curve for One Type of Room or Seat. Some Capacity Unsold

Typically where one price (P_1) is charged for this room type a certain level of demand (Q_1) manifests itself on any given rental date. Consumer surplus focuses on the revenue forgone by not charging a higher room rate – the shaded area. The demand curve which follows highlights the inverse of this concern. It illustrates the effect of a much lower room rate.

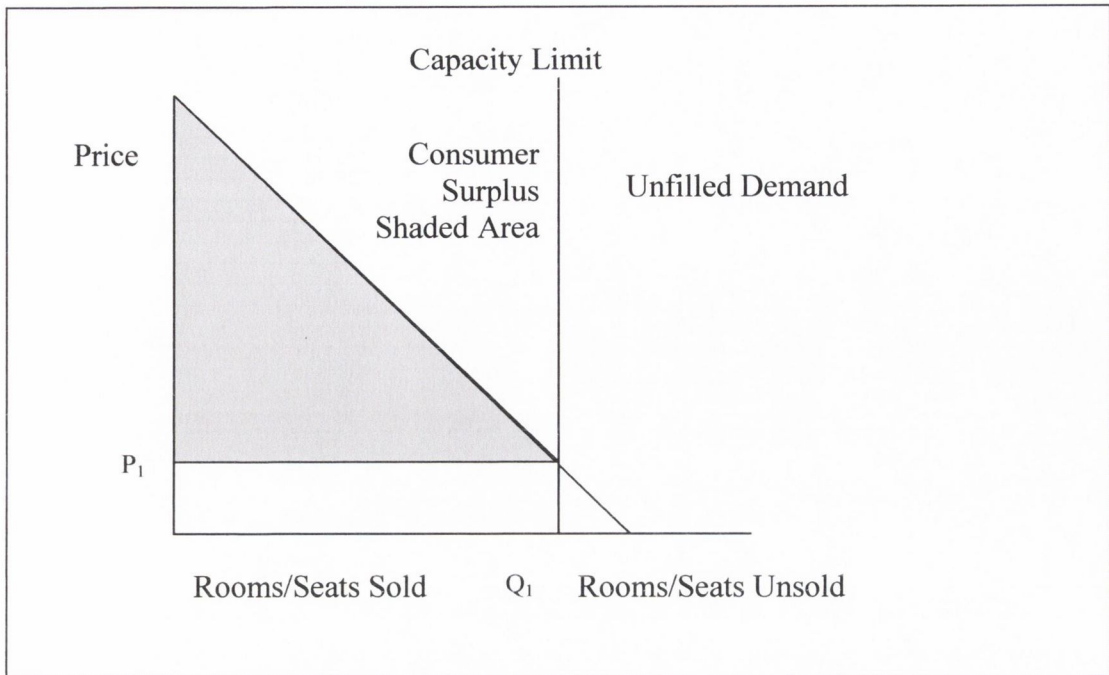


Figure 2.5 Demand Curve for One Type of Room or Seat. Capacity is Sold Out

By offering a lower price the consumer surplus increases implying that many of those clients would pay a higher price. Likewise the low price makes inventory available to people who could otherwise not afford to stay in the hotel. The objective of YM, in this context, is to capture the consumer surplus. This involves charging a range of prices. In the figure below six prices are shown for the same type of room. The consumer surplus is now the shaded area below the curve up to the capacity limit.

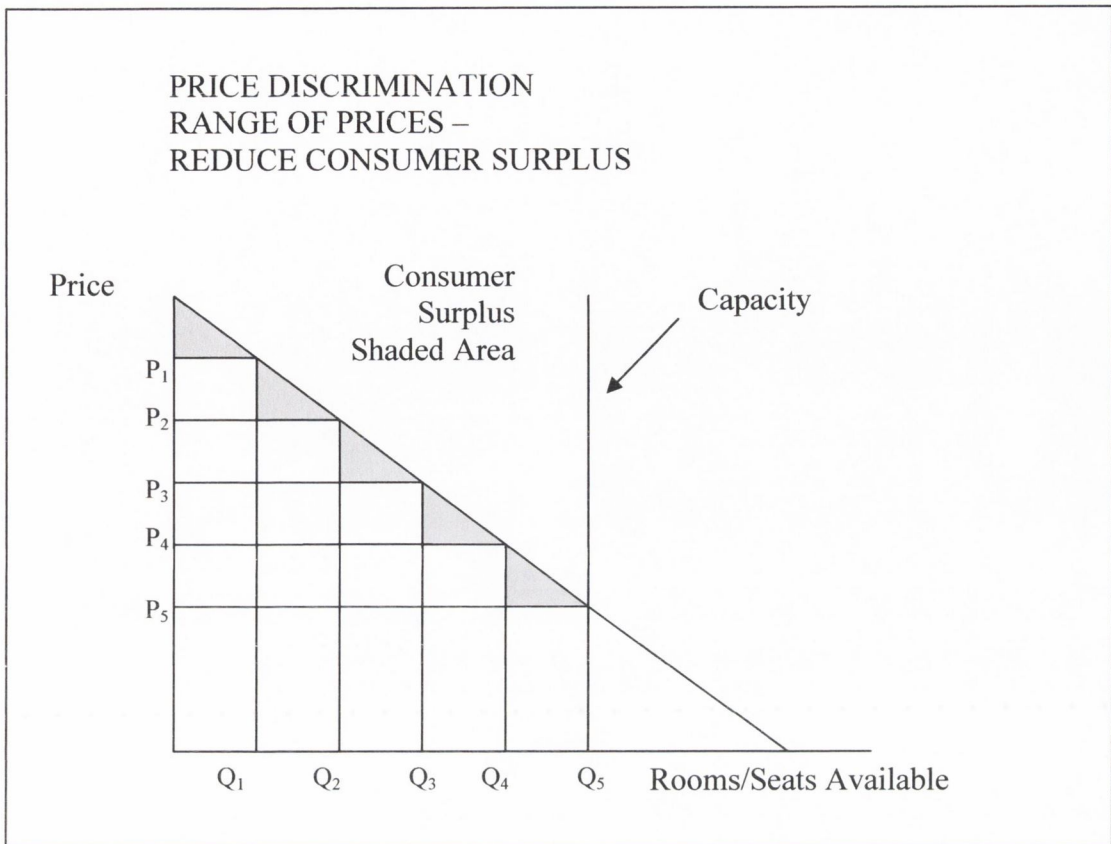


Figure 2.6 Demand Curve for One Type of Room with Six Prices

In this case six prices are posted for six quantities of room nights sold and much of the consumer surplus is captured for the hotelier or airline and revenue is maximised. Price discrimination is the means of operationalising this concept. Market segmentation is a prerequisite for price discrimination and this is discussed in the section which follows.

2.7.2 Market Segmentation

The theory of market segmentation concerns the sorting of customers for a particular service by their needs and behaviours and each segment being measurable, accessible, substantial and actionable (Kotler and Bowen, 1998). The skill of market segmentation lies in the ability to analyse demand – the market - and deduce what segments it comprises. In the hotel industry, market segmentation is traditionally based on economy, mid-pricing and upscale segments and fine tuning to meet perceived customer demands (Hiemstra, 1994:342). In a review of marketing management in tourism, Calantone and Mazanec (1991) identify attitudinal or benefit segmentation as the most often used methods in tourism (Calantone and Mazanec, 1991). This aggregates individuals of the market into groups that have similar attitudes or seek similar benefits when choosing a

travel destination or tourism service. Manifestly, consumers for the same hotel room, rental car and airline seat have different needs and behaviours. Some vacationers, such as tour vacationers, have a need to know many months in advance that their holiday destination, complete with meals, transportation and entertainment, is secured. Airlines and hotels are delighted with such clients as they too can arrange supply to meet this predictable demand. This service – advance purchase, guaranteed ancillary spend on food and entertainment - offers a low price for rooms. Conversely, an individual booking at the last minute with little opportunity to shop around and a need to be near an important business activity the following day will accept a higher price. Yet, the vacationer and the business client may be accommodated in similar rooms or seats. This is known as price discrimination offering a similar physical product at different prices and is considered in the next section.

2.7.3 Price Discrimination

A hotel room of a particular type or an airline seat of certain dimensions or an automobile of certain size and engine capacity is a tangible product. The consumer purchases a service which endows them with the use of such a product for a given duration. It is the nature of the service which determines the price. A differentiated offering of services enables and justifies a range of prices. The business client faces effective barriers to accessing a lower price by unwillingness to buy a tour vacation many months in advance, and, indeed, does not require the ancillary activities – the other tour dates, the associated flight times, meals, entertainment - which accompany it. These barriers are known as rate fences, designed and put in place to prevent potential higher spend customers accessing the lower price. Therefore, the supply or inventory of rooms/seats/cars must be made available to all segments in a manner ensuring that services which attract the highest possible rate always receive or are allocated inventory at the expense of other lower priced segments. Clearly, as well as judicious segmentation and associated pricing, accurate forecasting is necessary. This is designed to ensure that inventory is not wasted and that potential high priced consumers do not ‘spill’ into lower price categories, or that inventory remains unsold at rental date despite demand at some earlier period.

2.8 Demand Management over the Longer Term

The objective of any enterprise using YM is to capture consumer surplus on the aggregate demand for the financial quarter or year. On a strategic basis the objective is to maximise over the life of the enterprise. It is possible to move demand from one period to another through promotion or through restricting rates. For some consumers the particular dates of their stay are not material, flexibility normally confers a lower rate (a retired person taking a break). The enterprise will seek to condition this market and move the demand into a period when their forecasts indicate inventory cannot be sold at the higher rates.

2.9 Operationalising the Underpinning Theories

2.9.1 Core Managerial Activities

YM consists of the coordination and, thereby, the integration into a coherent activity of the following activities such that the objective of capturing consumer surplus through price discrimination is achieved.

1. Market Segmentation and Pricing
2. Forecasting
3. Inventory Allocation and Control
4. Rate mix
5. Reservations acceptance or rejection for enterprises where advance booking is operated.

Each of these is described as follows:

2.9.2 Market Segmentation and Pricing

As indicated earlier, one of the prerequisites of capturing consumer surplus is the capability to segment the market into a number of discrete groups with distinct attributes. These attributes will include customers' sensitivity to the price being quoted for the service, the flexibility required for the reservation, how far in advance the customer is able or willing to reserve the service, penalties or otherwise for cancellation and the volume available from that client. The market for hotel accommodation may be divided into discrete segments which may be illustrated with reference to Rack Rate Customers. The rack or full rate customer does not belong to a market sector with homogenous

characteristics. Rather it is a sector, which, through force of circumstances and non-availability of accommodation, is forced to pay the full rate for accommodation.

2.9.3 Forecasting

In the technical review of YM literature, presented later in this chapter, forecasting is an underlying theme throughout. Forecasting activity relies to some extent on historical data, although in a dynamic marketplace with new products and services constantly coming on stream this represents only one source of guidance for the future. There is a need for recent information on the customer, their generating region, competitor offerings and events. There are issues of standardising data and series of sufficient size to support robust analysis. Large corporations have the resources to warehouse vast amounts of data. Small family businesses in destinations can also access computing resources. Their close contact with the consumer, combined with networking in destinations, can be leveraged for forecasting purposes.

2.9.4 Inventory Allocation and Control

Inventory allocation has to do with how many units of capacity are available and to allocating to each segment and distribution channel. The inventory of first class seats on an airline is fixed, however economy class could be expanded by allocating first class seats, moving the curtain to effect this. Likewise, an analogous situation can apply in a hotel which has a variety of room types – relatively luxurious rooms may be allocated to the economy segments. In airlines such as Ryanair, and hotel chains, such as IBIS and Marriott, which provide large numbers of standardised physical products, re-classification of inventory is less of an issue. Inventory allocation in a destination involves quantifying the available stock and classifying by grade and type i.e., 3 star apartments, 3 star hotel rooms. Capacity may be affected by seasonal closure.

2.9.5 Rate Mix

This is closely related to inventory allocation. Rate mix is concerned with how many units of inventory to allocate to each rate schedule in order to maximise revenues. One can distinguish between inventory allocation and rate mix by reflecting that the total of inventory allocated to all economy may be sold at different rates. All rooms allocated for sale at other than premium rates may be sold at tour rate, preferred corporate rate special midweek rate. Generally segments attracting higher rates exhibit later booking patterns

than lower rate categories, so it is necessary to decide in advance how much inventory to reserve for the later booking higher rate segments. Reserving too little will lead to dilution of revenues from the lower rate categories. Reserving too many may lead to lost opportunities of selling rooms or seats to lower rate categories. Controlling the allocation between channels involves ensuring that when demand manifests itself inventory is made available to that channel. It may be that a salesperson is 'holding' inventory during negotiation while simultaneously there may be demand from customers directly to the hotel.

2.9.6 Reservations Acceptance or Rejection

In order to accept or reject reservations decision support is required which provides solutions/recommendations focusing on the following problems or issues namely:

Overbooking

Displacement

Block Bookings

2.9.6.1 Overbooking

In order to compensate for no-shows or cancellations, inventory in excess of capacity is sold. This practice is known as overbooking and carries the risk of oversales i.e., customers who show up but who cannot be accommodated. Its arguable as to which is the more serious situation, missing a chosen flight or finding no room at a hotel. Most passengers are aware that airlines practise overbooking and of the risk of an oversale, but accept it as part of travelling. Hotels experience stay-overs (customers who wish to extend their stay) and early check outs (checking out before the reserved stay is over). This affects available capacity.

2.9.6.2 Displacement

Displacement refers to bookings involving multiple flight legs or multiple night stays being displaced by a booking for one flight leg or one night. Where it is the goal to take account of displacement an inventory allocation must be made for multiple nights/flights based on forecasted demand.

2.9.6.3 Block Bookings

Block bookings arise when a group or tour operator requests a block of rooms or seats at a given rate. While this can be attractive, business uncertainty regarding the size of the group which will eventually materialise adds complexity to the decision. Requests for such bookings may be made as a series for specified dates over many months straddling periods of high and low demand. In the case of hotels the ancillary spend on other services may be factored into the decision.

2.10 Yield Management Literature Review

2.10.1 Background Note on Origins of the Term Yield Management

The genesis of the term YM lies in the systematic attempts by airlines to control overbooking during the late 1950s and 1960s. Viewed from afar, this was a seemingly less complex era, characterised by fare and route regulation. Maximising revenue centred on tackling the problem of cancellations through overbooking, a practice which did not have the full sanction of the Civil Aviation Board in the USA (Rothstein, 1971). Consequently, the small teams operating the system in the airlines were not publicised and the activity was commonly referred to as Yield Management. Overbooking was legalised in the 1970s (Ruppenthal and Toh, 1982), and the work carried out by YM teams and their systems expanded to operationalising price discrimination through the coordination of pricing, forecasting, inventory allocation and reservations acceptance (Rothstein, 1985). This expansion of the work of YM was spurred on by the advent of deregulation, the growth of hub and spoke networks and more complex routes, vastly increased competition and ever more demanding consumers (Cross, 1995). During the 1980s the term Revenue Management appeared and is used side by side with the term YM.

2.10.2 The Body of Knowledge

The body of knowledge comprising YM dates from 1958 with the publication of simple guidelines for overbooking (Beckman, 1958). It includes journal papers, conference papers, articles, PhD manuscripts and a small number of books. In addition a number of major airlines and hotels, American airlines, Ryanair, United Airlines, Cathay Pacific, Hilton, Four Seasons, Intercontinental and Jurys have developed proprietary systems. These systems may be developed entirely in house and/or also with consultancy input. A

number of consultancy companies, namely Aeronomics, Decision Focus, IDEAS and PROS have been established since the late 1980s and early 1990s. The Airline Group of the International Federation of Operations Research Societies (AGIFORS), established in the 1960s, is the professional body and latterly a track of the INFORMS conference is devoted to YM. A Revenue Management Conference and Technical Briefing by the International Air Transport Association (IATA) has been held every year since 1988. Finally, a community of academics numbering about forty professionals has been involved in publishing journal papers over the past decades. The Flight Transportation Laboratory, a teaching and research unit in the Massachusetts Institute of Technology (MIT), has been in existence since the 1980s and produces reports on YM for airlines. Finally the aircraft manufacturer, Boeing, has conducted studies in this area as it impacts on the capacity size of their aeroplanes.

For the purposes of this dissertation which is concerned with a theory of YM for destinations the literature output may be classified as follows:

Technical: This is made up of algorithms, statistical, technical, operations research and mathematical models which underpin the quantitative aspects of YM.

Implementation: This body of work focuses on change management, human resource training and development, skills levels, issues which commonly cause confusion, frameworks for implementation, critical success factors.

2.11 Technical Issues

2.11.1 Demand Distributions

Work on this area is key to specifying models which predict future demand. The principal source of such distributions is analysis of historical demand. However, such analysis is inherently flawed or biased because data reflects bookings accepted while the allocation of rooms for that rate was “open” or available. Callers seeking rooms at that rate, who were refused because the balance of inventory was allocated to other rates/prices, are therefore not contained in the historical data. Recording denied queries is not satisfactory as the behaviour of the denied callers (their pattern of confirmed, cancelled, no shows) is not complete. Work to approximate demand which focuses on addressing or

compensating for this technical difficulty has been carried out by Swan (1995), Lee (1990), McGill (1995), Smith et al., (1992) and Nahmias (1994). The technical expression for such corrections is the uncensoring of demand data (Orkin, 1998).

2.11.2 Demand Distributions for Pace of Bookings

Work in this area is essential in order to provide a basis for arriving at booking limits which reflect a rapidly changing market place. It may be appropriate to flood the market with cheap seats, or, conversely, to reverse such a policy based on observed pace of bookings and quickly change to increasing the allocation to higher rate businesses. Therefore, dynamic booking limits are needed and the task is to find a statistical approximation to specify the pattern of bookings as they are recorded, building up (or decreasing) for each rental date in each rate category. The overall effect on ultimate demand and appropriate booking limits can be estimated from each build up. Work on the distribution used to model the pace/pattern of bookings as rental date approaches has been carried out by Alstrup et al., (1986), Lee, (1990), Weatherford et al. (1993), Beckmann and Bobkowski (1958), Rothstein (1968, 1971), Gallego and Van Ryzin (1994, 1997) and Schwartz (2000).

2.11.3 Distributions for Overall Demand to Inform Overbooking Decisions

The focus of work in this area is to arrive at a figure for total bookings for a rental date which estimates cancellations, no-shows and go-shows, and, thereby, informs an appropriate level of overbooking. Work in this area has been carried out by Beckman (1958), Taylor (1962), Martinez and Sanchez (1970), Shlifer and Vardi (1975), Belobabba, (1987) and Bitran (1996). Work in this area has shown that the normal probability distribution is a good approximation for total demand.

2.11.4 Use of Regression, Time Series Analysis, Moving Average and Smoothing Techniques

A range of work has been carried out in this area to determine which is the most appropriate forecasting technique. Regression incorporating promotional information has been found to improve forecasting for overall demand over the use of time series analysis. Likewise, these techniques are effective for predicting aggregate demand, but not at the level of demand for each market segment, i.e., disaggregated demand. Recent patterns provide the useful information. In the airline industry, where data is scarce for a

particular route, this is overcome by clustering data from other routes which are similar in terms of duration and market. Finally, in general, simple moving averages and smoothing techniques, with monitoring of all recent information and use of this information, is the most common approach in airlines (McGill and Van Ryzin, 1999; Weatherford et al., 2001; Weatherford and Kimes, 2003; Kimes, 1999; Schwartz, 1997).

2.12 Implementation

As stated earlier, the majority of research output in YM is based in the airline industry. In contrast to the hotel sector there is little explicit reference to implementation in airlines. Notably, however, in one such paper to AGIFORS dealing with the development of a YM system for Air Japan the author states “system factors contribute only a 20 to 30% share toward a successful YMS introduction, and the human factor can dominate, having a 70 to 80% share of the total effect” (JAL, 1990). Likewise, it is notable that papers on YM from the airline industry have a problem orientation, i.e., overbooking, inventory control and multiple flight products (analogous to multiple night stays).

From the late 1980s onwards, the volume of output based on hotels increased. One paper purports to report on misunderstandings of the YM concept in order to “debunk ten of the most common myths” regarding YM (Liebermann, 1993).

In parallel with this, a number of hotel chains, Hilton, Marriot, Holiday Inn, Hyatt, were busy successfully developing their systems (Kocsi, 1994). Empirical studies in the UK and Italy suggest that slow adoption/acceptance of YM by independent hotels is caused by a lack of full understanding of YM (Luciani, 1999; Bradley and Ingold, 1993). An alternative view is that YM has a large organisation orientation which is inimical to SMEs. A number of papers resonate with the Air Japan experience and stress the importance of the human factor (Rowe, 1989; Brotherton and Mooney, 1992; Harris, 1995; Donaghy et al., 1997). Hence, there is a need to ensure that work roles, mindsets, behaviour of reservations staff, relations with customers and how they perceive the operation of a YM – driven environment are designed to support YM (Brotherton and Turner, 2001). Pragmatic considerations by SMEs of implementation costs and benefits can militate against a decision to invest in YM. The cost of allocating expertise and sustaining the human capital development to support YM may not be viable for an individual SME (Marvel, 2001). One SME proprietor, an advocate of YM, silent for some

months on its development, announced to this author that his expertise had been abruptly refocused on purchasing another SME. He perceived this as an easier and more certain route to additional cash flow (Johannes, 1999).

The need to educate all staff involved in YM activities is prescribed by a number of authors (Kimes, 1989; Orkin, 1990). The focus on the importance of people has motivated studies identifying implementation issues (Farrell, 1995; Jones and Hamilton, 1992) and a most comprehensively and empirically based implementation framework has been developed by Whelan-Ryan and Farrell (1998). As an aside, and possibly motivated by the hotel inspired implementation papers, it is notable that an airline based paper recently emphasised the importance of the organisation and its rewards not working against each other in supporting YM (Elkins, 2001). The critical success factors for a YM system are identified through a number of empirical studies (Upchurch, 2002; Griffin, 1995).

In the literature referred to above, focusing on implementation, the solutions are designed to ensure that YM becomes embedded in the operations of each unit. The measures recommended, namely, training, management commitment and developing a new culture seem eminently sensible. However, they may distract from a complementary phenomenon, namely, unevenness in the application of YM in large globalised companies. Some hotels in a company may faultlessly implement the YM system while others simply do not. A general manager or a regional manager may look askance at a system requiring considerable resources of time and capital when there are competing demands (Bramwell, 2004). Hence, central offices of large companies find themselves in the role of persuaders. This is noted here lest the casual observer be misled into the belief that large companies act in regimental unison, perfectly synchronised by global adherence to a common set of standard operating procedures. The latter comments relate to hotel companies (Bramwell, 2004; Ganner, 2004). A similar comment was made regarding the adherence to procedures of large airlines.

The role of the central office as a persuader in large companies is analogous to that which the DMO may have to assume with some less than convinced SMEs within the destination.

2.13 Matrix of Yield Management in its Traditional Interpretation

The following matrix summarises how YM has been conceptualised and developed to date.

	Single Entity	
	Single Operational Unit	Multi-Operational Units
Single Sector		
Multi-Sector*		

Figure 2.7 Matrix of YM Concepts in its Traditional Interpretation

* The shaded portion is by definition excluded, as a single operational unit (i.e. a fleet of cars) can only serve a single sector – the automobile rental market.

For the purposes of this research a number of terms are defined as follows:

Entity: This term refers to ownership. Single entity may refer to an individual or a corporation. Entities may have one or a number of operational units, i.e., a single operational unit or multi-operational units.

Operational Unit: An operational unit is identified by its capacity at a specific geographic location. A 100 seat aircraft, a 200 room hotel, a fleet of 70 automobiles are examples of standard operational units for the airline, hospitality and car rental sectors respectively. (This definition takes into account that the seat per flight in the aircraft is the unit of sale. The automobile day is the unit of sale in car rental, hence a fleet is required.)

Multi-Operational Units: This refers to more than one operational unit. Hence a number of aircraft, more than one hotel, more than one fleet of automobiles.

Sector: This term categorises the type of service provided by each entity i.e., air transportation, hotel accommodation. An entity might operate in a single sector i.e., hotel accommodation only, or more than one providing services which are multi-sector i.e., hotels, cruise lines, airlines and car rental.

2.13.1 Identifying forms of YM using the Matrix

Using the matrix and the above terms YM management is identified in its traditional form.

Single Entity/One Operational Unit/Single Sector: This could consist of an airline with one aircraft, a hotel, a car rental company with one fleet of vehicles operating in their respective sector and air passenger transportation, hotel accommodation and car rental in one sector only.

Single Entity/Multi-Operational Units/Single Sector: A chain of hotels where each hotel maximises revenue individually or similarly a car rental company with a number of fleets of vehicles each operating in their respective sector.

Single Entity/Multi-Operational Units/Multi-Sector: Companies or enterprises such as Hurrahs Casinos have a number of operational units in Las Vegas. These provide services in hotel accommodation, gaming and restaurants each operating in its respective different sectors. Within this definition an entity may choose to yield manage its multi-operational units in aggregate or discretely. In the case of Hurrahs Casino high spending gamblers may be given free accommodation to boost gaming sales.

There are other nuances not explicitly captured in the matrix. A chain of hotels may consist of directly managed and franchised hotels (components of capacity) classified as single entity (the franchiser or brand owner). A local franchisee may elect to opt out of the corporate YM promotional scheme, hence the single entity is not necessarily homogenous.

2.13.2 Destination Yield Management Defined

This section now turns to defining YM for destinations which is the central novel concept underlying the thesis of this dissertation. This contribution to expanding the scope of traditional YM is illustrated by the additional column under the heading 'Multi Entities' in the YM matrix.

	Single Entity		Multi Entities
	Single Operational Unit	Multi Operational Units	Multi Operational Units
Single Sector			
Multi Sector*			

Figure 2.8 Matrix of YM Concepts Developed to Incorporate Multi Entities

* The shaded portion is by definition excluded, as a single operational unit (i.e. a fleet of cars) can only serve a single sector – the automobile rental market.

Multi Entities: Multi entities are defined here as a cluster of individually owned companies or enterprises, which may be operating in one sector or a number of different sectors all within a destination supported by a DMO and its DMS.

The other terms have already been defined.

Using the common terminology, YM for destinations can therefore be defined as:

"Destination Yield Management is Revenue Maximisation for multi entities operating in a single sector and/or multi sectors in a given destination."

This definition envisages YM where individual enterprises benefit from Destination Management such that decisions are informed which support maximising revenue for the destination.

The definition of YM developed in the chapter using the matrix takes account this wider view of a tourism SME as an integral part of a destination. Building on this definition Chapter Four develops a theory identifying the concepts within DYM and develops a theory to assist its application.

2.14 Conclusions

The tourist experience is derived from the destination. The success of some destinations has been attributed to collaboration and cooperation. The changing of the travel distribution process, and the ability of the customer to access it at many points require DMOs and their DMs to engage with the visitor. This engagement and intense competition requires focused customised offerings appealing to lifestyle/experience needs, rather than products. In turn, this imposes a need for collaboration and partnerships within the destination to formulate, promote and deliver such products.

The underlying need to develop market segmentation capabilities to underpin the process of customer engagement and data gathering within the destination supports the database need of DYM. The requirement for DMSs to be more interventionist, speedy and responsive requires them to build and develop such databases in a structured way which can also benefit DYM. Elements of the information needs of a DMS sufficient to support DYM are already identified in existing destination management models.

Throughout the evolution of YM, with varying emphasis on overbooking, booking limits, origin and destination fares, forecasting has been a constant underlying theme as every decision is based on a forecast of a future state.

The experience of over four decades in forecasting has converged to the practise of emphasis on recent data and recent behaviour in bookings and aggregation of data from other similar products where there is a lack of data. There is a premium on recent data/information which may affect the consumer and their intention to purchase or travel.

The essence of the accept/reject decision for each booking rests on available capacity and/or the valuation of displaced business. This may be complex and require a very thorough knowledge of how the availability of inventory might affect possible future booking enquiries. This may require knowledge of interdependencies of demand between products sensitive to pricing, special events, seasonality, block bookings, cancellations, competitor actions, and a knowledge or a feel for 'events'.

As with the evolution of YM systems in other sectors, destinations need to follow a similar stage of development with research on distributions of overall demand,

pace/patterns of bookings, build up, valuation decisions based on forecasts of the displaced bookings and disaggregated forecasting of segments/product demand.

Airlines with many aircraft operate YM as do hotel chains with many units. Airlines operate from one central system whereas in hotel chains the level of central control does not seem to be as strong. Airlines and hotel chains show that it is possible to operate YM for many hundreds of planes or properties distributed worldwide. Analogously providing YM support for SMEs in a discrete area is achievable.

The YM literature appears to be based on single enterprises in all cases. The possibility of a cluster of SMEs practising YM does not seem to have been explored. Yield Management for destinations can be defined as:

“Destination Yield Management is Revenue Maximisation for multi entities operating in a single sector and/or multi sectors in a given destination.”

In conventional models of destination management the components are identified yet the coordination element/mechanisms are missing. This is analogous to the lack of coordination between departments in large companies – which YM was originally designed to address. The lack of reference to mechanisms to maximise revenue in destination management models and appropriate supporting mechanisms is remarkable, yet it mirrors a similar situation in large companies which YM is designed to address. One of the principal functions of YM is that of a coordinating activity which allows different parts of the company to orient their decisions more explicitly and formally in order to maximise revenue. The same need exists in destinations and this is addressed by DYM theory. There is no empirical evidence that SME proprietors are slow to adopt YM because of any innate lack of ability other than the observed phenomenon of a slowness to adopt new technology and lack of YM systems in this sector. There is evidence to suggest that it is not viable for SMEs to develop YM systems. This supports the view that there is a strong argument for developing a DYM theory which recognises that tourism SMEs operate and are an integral part of a wider organised set of elements which are marketed as visitor experiences.

CHAPTER THREE

METHODOLOGY AND RESEARCH APPROACHES

3.0 Introduction

This chapter discusses the methodology and approach adopted in this dissertation. It argues for a theoretical and empirical approach as a first step in the development of a theory of Destination Yield Management. The chapter is set out as follows.

- An overview of the methodological underpinning of the dissertation is provided.
- The context for choosing the methodology and approach is described.
- The initial early exploratory phase of the research which originally focused on traditional yield management is discussed.
- The activities and process of identifying the wider strands of enquiry which evolved to form a theory of DYM is explained.
- The nature of theory is described, namely, concepts, variables, axioms or postulates, propositions and hypothesis. A number of views on the process of theory building are outlined.
- This section endeavours to provide insight into how the wider strands of enquiry coalesced and new theory began to form.
- The use of in-depth interviews for the empirical phase is introduced and the objectives of the in-depth interviews are set out.
- The reasons for the choice of in-depth interviews are discussed.
- The data collection format, the interview structure and panel are introduced.
- The choice of approach and methodology is reflected on.
- Conclusions are drawn.

3.1 Overview of Methodological Underpinning

The methodological underpinning of this dissertation is a combination of theoretical research and empirical research. The theoretical research approach was used in order to develop a theoretical conjecture and then empirical research was conducted as a high level validation of the theoretical conjecture. The approach to this was the one articulated by Remenyi and Money (2004) in which they defined a theory as ‘systematically organised knowledge applicable in a relatively wide variety of circumstances, using a system of assumptions, accepted principles’.

It is important to state that the theory developed in this dissertation is not intended to be a *complete explanation* of Destination YM. It is a first explanation of how YM can be

useful to SMEs to improve their performance and it will be necessary to refine this theory during some extended period. In any event *a complete explanation* of a scientific phenomenon is not always possible. This point has been made by several philosophers of science including Feyerabend (1993) who said:

We may start by pointing out that no single theory ever agrees with all the known facts in its domain. And the trouble is not created by rumours, or by the results of sloppy procedure. It is by experiment and measurement of the highest precision and reliability.

(Feyerabend, 1993, in Remenyi and Money, 2004:301)

With regards to the theoretical component of this research, I define theoretical research to mean drawing on established ideas and concepts from published and non-published sources especially the literature and through a process of reflection and discourse extends previous work to create new explanations, insights and theories which provide better or fuller explanations of the issues and the relationships being studied.

Through theoretical research it is possible to make a considerable contribution to the body of knowledge without having to collect or analyse primary data or evidence. Primary data is in the domain of the empiricist and this is used later in the research. For theoretical research, data may of course be used by reference to already published sources and will thus be, by definition, secondary data (Remenyi and Money, 2004).

The relationship between theoretical and empirical research is symbiotic, as empirical research is rooted in theory which itself will typically be based on ideas derived from observation. One can expect, therefore, to find a well balanced division of research output between these two broad areas. Empirical research is the dominant paradigm in business and management research (Remenyi et al., 1998). There is no incontrovertible philosophical argument why this should be so. Rather, it may perhaps reflect the longer history of the scientific method of the natural and physical sciences.

3.2 The Context for Choosing the Methodology and Approach

With regards to my research, YM is a concept which has been used in practice since the 1970s and it has been developed into a significant field of study with the academic community taking an active interest in this area of work. The success of a number of

airlines and hotel chains has been attributed to this approach. Looking at the pricing strategies of a wide variety of airlines ranging from the Low Price Carriers such as Ryanair to the more business orientated carriers such as British Airways it is clear that YM plays an important role in their strategy (Lawton, 2003).

But besides airlines and hotels, there is relatively far less evidence in the literature that YM has been extensively adopted by other industries. Stelios Haji-Ioannou has made an attempt to introduce YM into the cinema business with his launch of easyCinema, but with limited success (Clark, 2003). As mentioned previously, at the heart of YM lies the belief that there is a wide range of users who can be attracted by a range of prices under conditions of controlled purchase to consume services and that these prices can be offered under specific circumstances which will suit the vendor and which will in turn capture 'consumer surplus'.

The idea of using YM in a wide context which embraces multiple services with multiple ownership inter-linked by their location (i.e. in the tourist businesses comprising a Destination) is a new development. From the point of view of this research, this idea arose from an earlier research focus on traditional YM in hotels. How to achieve the use of YM in these circumstances became the underpinning research question for this dissertation.

3.3 Exploratory Phase of Research

The focus of the early period of research was framed by the conventional concentration of YM on single corporate units, largely hotels and airlines. The airlines, US based, which have YM systems are very large organisations with, in some cases, hundreds of aircraft e.g., American Airlines or United Airlines.

The hotels which practice YM are members of groups such as Marriott, Hilton, Holiday Inns and Grenada. Here we are talking about thousands or even tens of thousands of hotel rooms.

The first step in my research was to conduct a thorough search of the academic literature. Then from this source and also from discussions with colleagues and knowledgeable

informants it became apparent that there was a disconnection between the impression conveyed by the literature and reality.

This can be summarised as follows:

1. Although the literature on Airline YM commenced in 1958, I established that Aer Lingus was not particularly advanced in this area even by the early 1990s and they had engaged a US consultancy firm to assist them (O'Connor, 1995).
2. Some of the literature on hotels in the late 1980s and early 1990s was written as though YM was some new phenomenon. It became evident, through discourse that during this period the largest hotel company in the world, Holiday Inn, had a functioning rudimentary YM system. Likewise, Hilton, Marriott and Granada developed systems in the 1990s. This seems to have been achieved effectively and certainly belies assertions, referred to in Chapter Two, that software was a general problem or indeed that there were fundamental problems of understanding in the hotel sector.

Therefore, YM technology and systems were not in short supply. However, understanding of YM and take up by SMEs in tourism, hotels in particular, was poor. The EU became particularly concerned about competitiveness, innovation and lack of adoption of YM (EU Commission, 1997).

At this stage, whilst useful work might be done in the area of developing user friendly systems for individual SMEs, I came to be of the view that, perhaps, the sources of progress lay elsewhere. The section which follows focuses on what became for a time a broader scope of enquiry.

3.4 New Theory Formulation Phase

Rather than initially focus on SMEs I now looked to the wider context in which these businesses operate, sustainability (Brundtland, 1987) and tourism.

I was also conscious that any research should link to the major development of the day, namely, the Internet and the wider social, cultural and economic changes best expressed as a move towards the Information Society (Bangemann, 1994).

The EU Commission takes an active interest in tourism SMEs and what is referred to in EU documents as the Information Society Technologies in Tourism (ISTT) (EU, 1998). Implicit in its approach, is a view that large companies have no difficulty with the Information Society, but SMEs are under competitive threat. The emergence of large distribution companies such as Expedia is cited.¹ The latter concern seems to have been well founded, as currently even very large hotel companies feel under threat from these electronic intermediaries (IHG, 2004; Bramwell, 2004; Ganner, 2004). As an aside, I would observe that within the EU it seems that a US controlled threat and a target, if it is a European SME, is likely to attract EU assistance and concern. The view that the consumer might ultimately benefit if the market were allowed to function does not seem to have been examined.

I understand the thrust of the EU concern. The EU also identifies YM as an enabling technology of the IST and separately views YM as an area of expertise wielded by large companies, i.e., hotel chains. SMEs in tourism – explicitly small hotels - do not benefit from this. Again, one is tempted to state that YM may have been viewed as a made-in-the-USA phenomenon.

I engaged separately with these strands by initially focusing on a proposal to apply a YM technique used in network flow to the problem of tackling sustainable yield in visitor use of a National Park (Mulvey and Dzidonu, 1998).

Separately, I developed an eCommerce model of Tourism SMEs which proposed the idea of much closer cooperation and integration of SMEs through common ICT infrastructure and systems to deal with guest check in, purchasing, payroll and security thereby accessing the economies of scale enjoyed by larger organisation (Mulvey et al., 1998).

Destinations became the focus in considering the wider context of sustainable tourism in which many tourism businesses operate. SMEs rely on their host destination for meaning and identity. As described in Chapter 2, they are elements of a cluster of enterprises, which taken together with man-made attractions, the host community and the natural and

¹ Expedia takes inventory from hotels selling it on to the consumer taking a margin on the transaction. Market power enables Expedia to extract greater concessions from the supplier. Prices are driven downwards. The consumer surplus is partially captured by the intermediary and the supplier suffers lower profitability. This may lead to the degradation of the accommodation stock.

built environment, make up a destination. The unit of study, therefore, became destinations rather than just YM in an individual enterprise or corporation. This resonated with a number of recommendations (set out in Chapter One, Section 1.6) already proposed to reduce obstacles to the widespread adoption of YM by SMEs (EU Commission, 1997).

As a result of the earlier exploratory phase new opportunities presented themselves to have access and ongoing dialogue with knowledgeable informants from constituencies important to the research.

The University of Innsbruck launched an initiative of post-graduate education for SMEs in the 1990s, because as proprietors advance in years their non-formally qualified offspring tend to take over the family business. The programme included Yield Management, which I delivered to a number of cohorts of approximately 20 – 25 persons. This afforded a good opportunity to have dialogue over a period of two to three days and evenings for each session. A special seminar involving a cohort of Destination Managers from across Europe was also included in this series.

In parallel, and a later stage, I delivered a similar programme for a middle management development programme for the Intercontinental Hotel Group, Middle East and Africa Division and two programmes for a mixed audience of participants (chain hotels and SMEs) for the Hotel Association of India. During this period I was appointed moderator of an EU discussion and authored a Green Paper to inform the research strands of Information Society in Technology in Tourism EU 5th Framework (Mulvey and Fedra, 2000).

This combination of conferencing, discussions with colleagues and other knowledgeable informants and participation in Think Tanks, over a number of years created an environment which enabled the strands to coalesce. Thereby, the process of theory development took firm steps forward. In the section which follows the definition of theory, its building blocks and the process of theory building are discussed.

3.5 The Building Blocks of Theory: Concepts, Variables and their Attributes, Hypotheses and Tests

A theory consists of concepts, variables, postulates and hypotheses (Babbie, 2000:52).

Each of these is discussed in turn in relation to the theory developed in this research for the use of YM for destinations.

3.5.1 Concepts/Constructs

A concept may be defined as an abstract or generic idea that will often be a building block of theory. It may also be expressed as an abstract element representing a class of phenomena which corresponds to a distinct entity or its essential features (Babbie, 2000: 52). Weber chooses the term focal construct to describe the fundamental components of a theory. Constructs represent properties of things. Theory may seek to explain or predict the values of, or changes in the values of, these properties. There may not be a focal construct and the emphasis may be on how some equilibrium arises between a number of constructs (Weber, 2003). A subset of values of a construct may have a special status as the dependent variable/s explained or predicted by the theory. This is the focal construct and the others are ancillary. Finally, concepts are regarded as real. Constructs become real through a process called reification (Babbie, 2000:122). Later, in Chapter Four, destination experiences are identified as one of the constructs of DYM theory.

3.5.2 Variables

Variables are identifiable aspects of each concept which may be measurable. Visitors are an identifiable and even measurable aspect of the construct of demand for destination experiences. Likewise, the capacity of the accommodation stock, the natural environment, the built environment, the host community, attractions and services have measurable properties. The capacity of the natural environment may be measured (Pearce et al., 1990:241) and a limit set on the throughput of visitors per day in a particular area. The capacity of the host community may be measured by the nature and type of visitor who is welcome in the locale. Doxey's IRRIDEX is an example of how such variables may be measured (Doxey, 1975, in Gartner, 1996:180-182).

3.5.3 Attributes

Attributes are characteristics or qualities that describe an object (variable) which, in turn, is a logical grouping of those attributes. The variable, visitors, for demand for visitor experiences has attributes, such as market segment, lifestyle, income, volume, length of stay and expenditure per capita on accommodation and ancillary services. The variable visitor may also have other attributes, such as satisfaction levels or predisposition to care for the environment.

3.5.4 Axioms or Postulates

A number of assumptions underpin DYM, i.e., Destinations SMEs aspire to maximising revenue, all Destinations wish to maximise revenue within the parameters of social, economic and environmental sustainability. Likewise as identified in Chapter One Section 1.8, Destinations which have a culture of collaboration and cooperation are more successful than those which do not. Candidates for DYM have a strong IT infrastructure and embrace the Information Society.

3.5.5 Propositions

Propositions are specific conclusions which have already arisen about the relationships among concepts derived from axiomatic groundwork (Babbie, 2000:52): Destinations with DMOs are more likely to successfully implement DYM than those which do not. Provision of daily forecasts by a DMO for SMEs is a feasible and primary step in initiating fully fledged YM for Destinations.

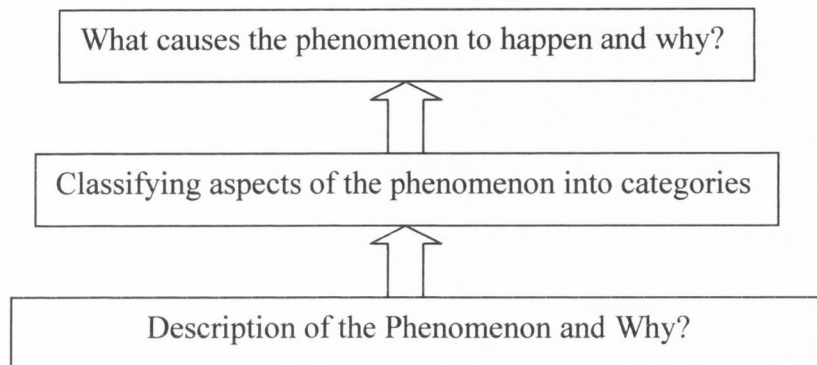
SMEs have difficulty in taking unilateral action on pricing policies, such as advance purchase and cancellation fees. The market place is inefficient in facilitating the utilisation of unused capacity.

3.5.6 Testable Propositions

A general proposition provides a testable expectation and research designed to test the proposition. The in-depth interviews are guided by a number of testable propositions to provide a falsification mechanism. This provides feedback to modify the theory and also suggestions on how to add to or improve the tests.

3.6 What is the Process of Theory Building?

Christensen and Raynor (2003) propose a three stage iterative model of theory formulation.



Careful attention is required to observe the phenomena as this serves as the foundation of the theory. The second stage involves a classifying process. YM can be considered by sector, airlines, hotel, by generic models and techniques used (Mulvey et al. 1997), by generic underpinning theories of market segmentation and price discrimination. This research moves away from its observed manifestation as a single entity phenomenon to advancing it as an activity embraced by clusters of enterprises with a common identity, that of elements of a destination. The final stage is what causes the phenomenon to happen and why – a theory. This has predictive value. Where prediction is contradicted by something not explained by the theory, categories can be added or eliminated or rethought.

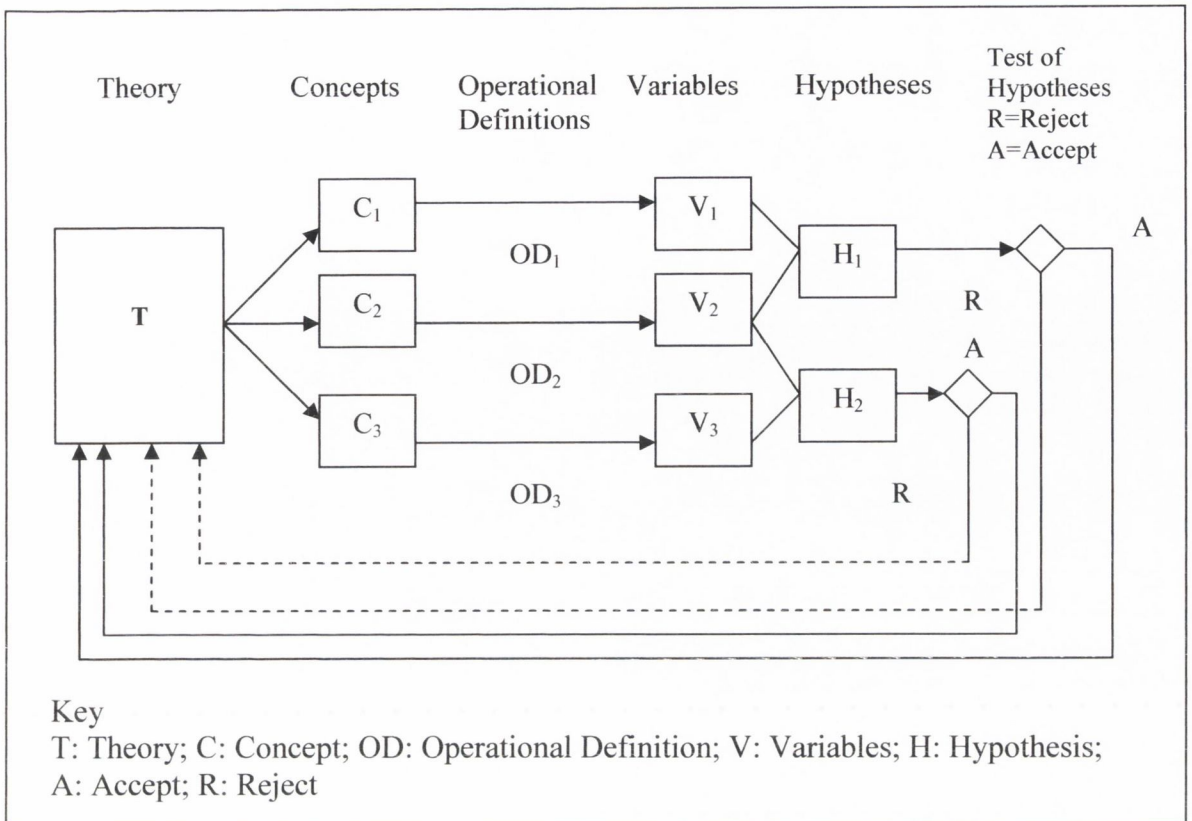


Figure 3.1 The Relationship among Theory, Concepts, Variables and Hypotheses

Source: Pizam, A., in, Ritchie, J.R. and Goeldner, Charles, (1994:95).

Pizam’s interpretation of the relationship among theory, concepts, variables and hypotheses is illustrated diagrammatically in Figure 3.1 above. His accounts differ from Babbie in terms of terminology. What Babbie describes as attributes of variables is referred to by Pizam as variables. Pizam refers to relationships between variables rather than between constructs.

Weber proposes a series of steps and in doing so advocates parsimony in identifying and articulating constructs, distinguishing between those which are the primary focus and those which act as controls (Weber, 2003).

3.6.1 Articulate the Constructs

Constructs represent the properties of things. A subset of these properties may have a special status, as one or a number of dependent variables. Such a variable (or variables) serves to identify the ‘focal constructs’ or constructs – the others are ancillary as they have an association or explanatory value. Weber distinguishes between theory with focal

constructs and building a theory of how some equilibrium arises between constructs – hence all are considered focal constructs. This latter description is appropriate for DYM which is focused on 3 constructs:

1. Demand for sustainable destination experiences,
2. Destination core resources and attractors and infrastructure,
3. Destination Management Organisation including its Destination Yield Management System (DYMS).

3.6.2 Articulate the Relationship amongst the Constructs of the Theory

The relationships between constructs of the theory may be specified with varying levels of precision. This is specified in Chapter Four, Section 4.4.4.

3.6.3 Articulate the Lawful State Space of the Theory

Weber characterises this as an abstruse notion. Given the choice of constructs, the theory might apply for certain values of each of the constructs, i.e., in DYM all transactions meet the criterion of fairness.

3.6.4 Articulate the Lawful Event Space of the Theory

This is the set of changes of state of the constructs for which the theory is expected to hold. The boundaries in this case are identified in Chapter Four, Section 4.7 as the laws and regulations in the country of operation.

3.7 Strands Coalescing and New Theory Emerging

Having engaged in the process there is no doubt that development of a new theory is a slow and anxious but stimulating process. Likewise, it is not a process amenable to the precise definition of where the new theory began to emerge. The process has been variously described as ‘mysterious’, as requiring detective work and creativity (Mintzberg, 1979, in Bannister, 2001:109) and characterised by lengthy periods of time.

It is perhaps useful to give a brief practical insight insofar as it is possible to be precise about a challenging process. As briefly pointed out earlier in the exploratory phase I diagnosed a disconnection between the airline YM literature and the reality in certain companies regarding the pervasiveness of YM systems. It was also pointed out that whilst such systems are centrally administered they are prone to various departments intervening

or even frustrating their intent (Swan, 1995). A similar picture emerged in a globalised hotel company (Luthje, 2000). This is not quite the picture one might expect of a corporate organisation bound by shared values and culture. One could characterise globalised corporations as mosaics of joint ventures, management contracts, local leasing agreements, outsourced services, franchising, cultural differences, rather than homogenous corporations. In this context, securing compliance of corporate YM policies relies as much on communication, education and persuasion as it does on corporate sanctions (Bramwell, 2004). Destinations, as discussed in Chapter Two, Sections 2.4 and 2.5, are clusters of community and political interests and vested commercial agendas. One of the features of DYM is the concept of many individually owned enterprises advised and guided by a set of policies and, where willing, sharing a common ICT infrastructure. I became encouraged in the view that additional coordinating of SMEs in a discrete geographical area may indeed be more amenable to teamwork and dialogue than monitoring globally dispersed locally embedded units.

As the strands of thought began to coalesce, the wider context of tourism was narrowed to Destinations. In turn, a sharpening of that focus to the management of destinations ensued. In this regard, the emerging theory, DYM, is as much about DM as it is about YM - considering SMEs not so much as enterprises but as elements of DM.

Thus the early stage of my research involved me in:

1. Being fully acquainted with the academic literature
2. Having in-depth discussions with colleagues and other knowledgeable informants
3. Participation in conference through presentation of papers.

The later stage – the theoretical formulation stage continued these processes but also included:

4. Delivering a number of courses on YM to executive groups and engaging with them in an ongoing dialogue about the applicability of this technology to European SMEs
5. Participation in a number of Think Tanks
6. Moderator of an EU Forum on IST.

When the theoretical stage of this research was completed I had a theoretical conjecture and a set of policies to support destination yield management. Although this was necessary for a doctoral research degree, I did not regard this as sufficient and therefore I

undertook a program of empirical research. After considerable reflection I decided that the optimal approach to this was to undertake in-depth interviews in a destination which I felt actually applied some of the ideas contained in my theoretical conjecture. I decided on this course of action because it was a way to validate my theoretical conjecture.

This validation process is of course limited by the fact that the in-depth interviews accounted for only one destination. However, even with this sample of one, the findings allowed the theoretical conjecture to be refined and permitted a higher degree of confidence to be claimed. In addition this empirical work supports my claim for accepting the theoretical conjecture as a valuable addition to the body of knowledge. It is offered as an additional first step in the development of a robust theory of destination YM.

In Figure 3.2 below the structure depicts in linear sequential fashion the role of the in-depth interviews in this dissertation. Their use here is not to perform one or a number of the tests but rather to serve as a check on all aspects of DYM. Figure 3.2 integrates, in diagrammatic form, the perspectives of theory building of Christensen and Raynor, Pizam, Babbie and Weber. It refers to testable and untestable propositions, rather than hypotheses, as the approach taken in the empirical research is qualitative. The in-depth interviews as they are used in this research is an integral part of a first step in theory development.

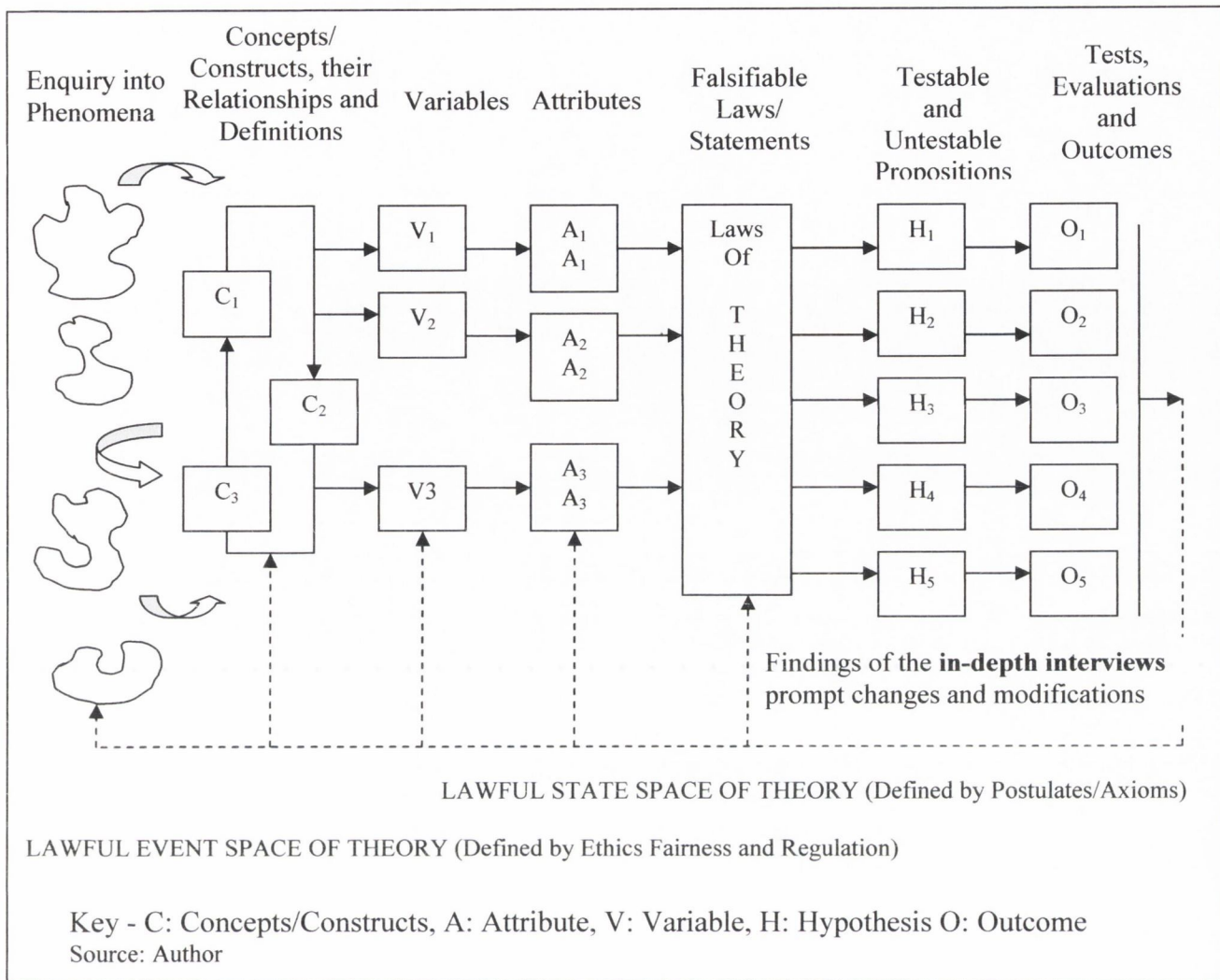


Figure 3.2 The In-Depth Interviews in Destination Yield Management Theory Development

Destinations are accepted as a focus for research in tourism (Leiper, 1979; Eligh et al., 2002).

In the period from the 1970s tourism emerged as a focus of many scholarly meetings (Graburn and Jafari, 1991).

3.8 Approach Adopted for the Research

Both quantitative and qualitative approaches to research are used in tourism although the bulk of research is quantitative (Riley and Love, 2000).

Quantitative approaches consisting of mathematical and statistical techniques have traditionally underpinned research in the natural sciences. Qualitative enquiry comprises five main methods, observation, interviewing, ethnographic fieldwork, discourse analysis and textual analysis (Travers, 2003:2). The social sciences use both methods. There exists a view that use of each of the approaches, qualitative and quantitative, and their methods is based on fundamentally different epistemological assumptions of positivism and interpretivism. In the social sciences Max Weber and Emile Durkheim exemplify the two sides of this debate. Durkheim championed positivism, he argued that, ‘unusual ways of thinking (common sense) are more likely to be adverse than favourable to the scientific study of social phenomena.’ (Durkheim, 1985, cited in Travers 2003:63). Weber argued for getting inside the heads of those being studied, with understanding being the goal. The positivist position, with its association with the natural sciences is suggestive of the existence of an objective reality – realist epistemology – this may then be discussed in ontological terms, namely can objective reality be accessed, i.e. referring to views about the nature of reality. The interpretivist perspective leads to the view that only different viewpoints can be described.

As interviews can accommodate either quantitative or qualitative approaches the issue is which is more appropriate. The objective is to check, understand and explore the theory in a practical setting. The nature of the theory itself includes a number of propositions. In this regard qualitative research is appropriate as it proceeds with not one but a number of guiding propositions (Decrop, 1999).

DYM is a simple concept but complex in communication as a theory. At the stage of this first check of the overall theory it is not readily amenable to the structured, standardised techniques and criteria of quantitative research. In this aspect as the process includes gaining understanding the gathering of information may be too subtle and too complex for a quantitative approach (Teare, 1994, in Decrop, 1999:338).

For this reason, therefore, a qualitative approach in the form of in-depth interviews with a small number of key informants was used.

3.9 Data Collection, Interview Format and Guidelines

3.9.1 Data Collection

Two basic methods of data collection are used in qualitative research in tourism – the individual interview and focused group discussion (Peterson, 1994). At this stage the aim is to engage at an individual level and focus on a single perspective without the layer of interaction which is a feature of group discussions.

The individual interviews consist of structured dialogue guided by the hypotheses of the theory and the objectives stated earlier. The goal of the in-depth interviews is to initiate and engage the interviewees in discussion about the phenomena which are the focus of DYM.

3.9.2 Role of the Informants

The label ‘qualitative interview’ has been used to describe a broad range of types of interview, from those that are supposedly totally non-directive, or open (Easterby-Smith et al., 2002:87). The interviews in this research are conducted so that insight is gained. They are an opportunity ‘for the researcher to probe deeply to uncover new clues, open up new dimensions of a problem and to secure vivid, accurate inductive accounts that are based on personal experience’ (Burgess, 1982:107, in Easterby-Smith, 2002:87).

The interviews are a check to elicit what ideas/thinking within the developing theory may be already present in some form in destination management practice in Ireland. Also the purpose is to elicit from the knowledgeable informants the extent to which they believe that the issues which are not already present could assist them in their attempts to use DYM.

As the role of the informant is to provide insight each respondent may therefore be considered as an informant (Remenyi et al., 1998:176) or a knowledgeable informant. Put another way, the use of a knowledgeable informant is to obtain information from an individual who knows the tourism sector. Such a person desirably may have one or all of the following: personal knowledge, experience of professional training in the area and the ability to express himself/herself clearly.

3.9.3 Format of the Interviews and the Panel of Informants

The format of the interviews was as follows:

1. Introduce the topic of the interview as bearing on Destination Management and as an explanation of ways in which destinations can improve yield through the utilisation of capacity and the use of a different approach to pricing. The objective is to manage demand and use price discrimination so that the utilisation of capacity is expanded, the consumer benefits and businesses maximise their revenues.
2. Discuss the existing approach to destination management to ensure that there is clarity of understanding. The objective in DYM is to enable the SMEs to delegate much of their property management functions to an automated destination system. Explore and discuss the interviewees' understanding and view of this and the extent to which such a facility may already be in existence.
3. Discuss the three constructs, the interviewees understanding of them and issues which may be related to them. Are they complete?
4. Discuss the variables and the attributes and the interviewees' understanding and comment on them.
5. Discuss the statement of theory and discuss the interviewees' comments and issues which arise.
6. Discuss the testable propositions. What is the interviewees' reaction to each of these?

The above serves to provide some underlying structure or guide to the interview. The key informants are in positions of considerable executive responsibility. The objective is to ensure they understand what is being proposed in a general way by DYM and to zone in on what they perceive as the key opportunities and the key issues which may arise. In overall terms the objective is also to gauge to what extent this is all new or is already in operation through some means, how well are the aspects operating, can they be built on and strengthened. The interviews are conducted as one session with the facility to return to follow up a detail if necessary.

3.9.3.1 The Key Informants

The key informants consist of highly placed individuals in the Irish Tourist Industry who have an in depth knowledge of the sector and the views and needs of diverse stakeholders. They are individuals who have an overview and who are in a position to understand the subject of the research and to have a view on the extent to which DYM already features in some way and the likelihood of its enhancement.

The Key Informants are:

Mr Paul O'Toole, Chief Executive, Tourism International Ireland. This organisation, set up under the Belfast Agreement, amalgamates the function of the previous Irish Tourist Board and The North of Ireland Tourist Board and is responsible for the marketing of Ireland to all tourists.

Mr John Concannon, Chief Executive, Ireland West Tourism, the Regional Tourism Authority for the West of Ireland.

Mr Brian Flynn, Secretary, Board of Ireland West and outgoing Chief Executive.

Dr Stewart Stephens, Chief Executive Gulliver Information Systems. This system currently provides tourism information on all products in Ireland to the consumer and supports all the regional tourism offices throughout the country.

Ms Catherine Lowry, Proprietor of a four bedroom bed and breakfast, Ireland West, a prominent member of local community groups and has a high level of regional knowledge.

3.9.4 Guidelines for Individual Interviews

Peterson (1994:491) proposes a number of guidelines as important for a successful study.

- i. Participants need to be carefully selected.

This is accomplished as I have knowledge of all the participants. They are selected on the basis that they have considerable experience through their involvement and expertise in careers in the phenomena which are the focus of the DYM.

- ii. The development of the interview guide is critically important.

The key to success here is the parsimony of the theory which facilitates the selecting of testable propositions that are central to the phenomena being described by the theory.

iii. Selection and thorough training of the interviewers.

As I conduct all the interviews this is less of an issue than where third parties are involved.

iv. Interpreting the results.

The interviews, whilst they include an unstructured element are fundamentally guided by the Statement of Theory, the Testable Propositions and the Summary of the Constructs, Variables and Attributes. In this way additional comments and insights are more readily isolated and classified. Likewise, fundamental concerns and any findings arising from exploration of these may also be identified.

3.9.5 Evaluation of Qualitative Research

Remenyi et al. (1998) propose a number of constructs to evaluate qualitative research. These are taken in turn in adapted form.

1 Validity

The notes of all interviews are provided to each knowledgeable informant for feedback to ensure access has been gained to their understanding (Collins and Young, 1988, in Remenyi et al., 1998:115).

2 Demonstrating a 'good fit' between Theory and Reality

Triangulation of the study may be considered here for this purpose. Triangulation is generally considered to be a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation (Stake, 1994:443). Although no observation or interpretation is perfectly repeatable triangulation serves also to clarify meaning by identifying different ways the phenomenon can be seen.

The role of the researcher here is to interpret an observation against one issue, perspective or utility, then against others (Stake, 1994:443).

3 Reliability

In the context of qualitative research, this is achieved by establishing an audit trail which allows others to verify how the researcher arrived at the outcomes of the study.

4 Generalisability

The function of qualitative research here is to identify what aspects of DYM may already form part of the practices in tourism, and highlight those which the respondents feel will improve their practice DYM. Understandings gained of the process in Ireland can form the basis on which such processes are understood in similar settings in other destinations.

5 Credibility

Credibility derives from the grasp which the knowledgeable informants have of the research setting and their ability to be a source of evidence.

6 Transferability

This concerns what statements can be made. The in-depth interviews provide feedback on the statement of theory of DYM.

7 Dependability

This bears on the earlier point made about preserving the richness of the data. Any changes in the conditions of the phenomena or the research design because of better understanding of the research setting are reported.

8 Confirmability

The research approach is set up to ensure that the findings can be confirmed by a similar study.

3.9.6 The Focus and Location of the Interviews: Ireland and Ireland West

The focus of the in-depth interviews is Ireland with a particular focus on Ireland West within that destination. Ireland has an established tourist industry with its origins as a destination for foreign tourists extending to the 19th century. Although it may have issues which need to be addressed (Tourism Review Group, 2003), Ireland is well regarded internationally as having a dynamic and successful approach to marketing and brand

development (Morgan et al., 2003). The Gulliver system was one of the first ICT destination management systems to be developed (Irish Government Report, 1994).

The Ireland West Region was chosen for the following reasons. I have a professional knowledge of the region having spent a number of years there as general manager in two hotels. The Regional Tourist Authority was keen to collaborate. The outgoing Chief Executive with 37 years of experience was complemented by the new perspective brought to bear by the current appointee. The region has a mix of urban and rural attractions, activities, and beautiful landscape. It has a tradition of tourism extending to the early part of the 19th century. In all of these aspects it is typical of a tourist region in Ireland.

3.9.7 Analysis and Evaluation of the In-Depth Interviews

Remenyi et al. (1998) advise against losing the richness of the collected evidence whilst they emphasise the importance of deciding what is important and what is not. In this regard there is material which supports the presence of elements of the developing theory in existing DYM, material which points to those elements of the developing theory being useful had the knowledgeable informants thought about it. Finally material which does not fall into this category is carefully considered as irrelevant to the research or as pointing to some important issue outside the developing theory which may require consideration.

The transcripts of the in-depth interviews were considered carefully and the content sifted so as to isolate the main ideas and issues. Content analysis was used to analyse and present the findings as follows:

1. Replies were categorised under each of the three constructs of the theory of DYM and each respondent's replies were scaled. The scaling was calibrated with reference to the extent to which each respondent agreed with the construct, cited examples and accordingly developed ideas. A template of the format used follows in Table 3.1 below.

Table 3.1 Template of the Format used to Categorise Interview Transcripts

Topic	Interviewees	Agreed with Construct cited examples in practice					Developed Ideas				
		1	2	3	4	5	1	2	3	4	5
Destination Experiences	CL										
	BF										
	JC										
	SS										
	PO'T										

The Scale of 1 - 5 indicates the level of engagement, extent to which DYM overall is embraced and the extent to which challenges are posed

1: Very low, 2: Low, 3: Medium, 4: High, 5: Very High

2. There was a further categorisation of comments germane to the theory of price discrimination, the management activities of demand management and forecasting and the policies of destination pricing and competition analysis. These comments are presented as additional insights without scaling being applied.
3. Finally, content analysis was used to isolate three themes which span the comments on individual elements of the theory. This was accomplished by counting the aggregate number of occasions these themes were cited by the respondents. The table is presented below and appears later in chapter 5.

Table 3.2 Summary of Number of Citations for Three Selected Themes for Concluding Discussion

Themes	Interviewees					Total
	CL	BF	JC	SS	PO'T	
A Building on existing DMS and local Ireland West self catering reservations system.						
B Diffused role of Destination Management Organisation, Local Creators of Experiences						
C Trade Association Involvement and Town and Country Homes Prepaid Voucher System						

3.10 Reflection on Methodology and Approach

The process involved in the first step of a development of DYM falls into a theoretical phase and an empirical phase.

The theoretical phase may be considered as a deductive approach. This has the advantage of encompassing a comprehensive view of the secondary data. The outcome is not constrained by what could be considered as limitations imposed by the finite number of participants and their contributions in empirically based research.

One of the points which is sometimes made about theoretical research is that it cannot claim to be based on direct observation and this can be regarded as a limitation. However, both arguments here may be making too sharp a distinction between theory and knowledge gained from data as it could be claimed that responses in empirical research are theory laden.

The argument for a qualitative approach has already been made. The theoretical approach may be claimed as accommodating an objective view of reality. In this regard a positivist approach could naturally follow in order to support the theory through large scale surveys and probability established statements and findings.

The strength of the dissertation lies in its combined approach of theoretical and empirical research.

3.11 Summary and Conclusions

In this Chapter I have outlined my methodology and I have described how I developed my theoretical conjecture. Furthermore, I have argued that in addition to the initial theory generation I decided that it was necessary to carry out in-depth interviews as a means of validation. It is the combination of these two approaches which allows me to assert that this work had made a contribution to the body of knowledge in my field.

Of course developing such a theoretical conjecture is a first step and this work needs to be further developed over time. I am reminded of the the most elegant statements of Checkland (1986) when he pointed out:

Obviously the work is not finished, and can never be finished. There are no absolute positions to be reached in the attempt by men to understand the world in which they find themselves: new experience may in the future refute present conjectures. So the work itself must be regarded as an on-going system of a particular kind. A learning system which will continue to develop ideas, to test them out in practice, and to learn from the experience gained.

(Checkland, 1986, In: Remenyi and Money, 2004: 301).

CHAPTER FOUR

DESTINATION YIELD MANAGEMENT THE THEORY

4.0 Introduction

In this chapter the developing theory of DYM is presented as follows:

- A Statement of the Theory is presented, followed by the testable propositions derived from the statement.
- The metrics used to evaluate DYM are described.
- The constructs, variables and their attributes which make up the theory are detailed.
- The functionality of the theory is animated by a description of how DYM is operationalised. This is carried out with reference to the architecture of the DYMS.
- The Lawful State Space and the Lawful Event Space of the Theory within which DYM operates is defined.
- The empirical, theoretical and economic bases which underpin why destination stakeholders, particularly SMEs, pursue mutually reinforcing trajectories are discussed.
- Conclusions are drawn.

4.1 Statement of Theory

Destination Yield Management (DYM) takes the concepts of traditional Yield Management (YM) and provides a framework which assists in applying them to an entire destination. This can materially improve the returns earned in the tourism industry in a way which is measured by increased yield for the destination, particularly its Small (including micro) and Medium Sized Enterprises (SMEs). DYM focuses on the premise that tourists and day trippers are motivated to travel, rarely by the unilateral initiatives of a single insufficiently resourced SME, but rather by the magnetism of the destination core resources and attractors and the experience/s associated with them.

At the heart of DYM is a coordinating strategy and this is facilitated by Information and Communication Technology (ICT) destination management systems which have the functionality to support destination yield management decisions. An established DMO with a leadership role in the destination coordinates the key players who are often SMEs

and/or micro enterprises. This includes all destination services: accommodation, transport, attractions, shops, car rental, tours, environmental services, policing and parks.

Within DYM, the DMO has a primary role in the creation of destination experiences and in promulgating the use of DYM. The DMO coordinates the DYM activities through the development of a series of destination policies which provide guidelines and support to key stakeholders, particularly SMEs for destination competitor analysis, pricing and rate fences (to operationalise price discrimination). The DYMS provides an electronic platform incorporating a service with YM functionality for each SME to manage its bookings/reservations and associated transactions as presented. It provides economies of scale, enabling SMEs to avail of a modelling subsystem which analyses the inventory of the SME, and makes recommendations to the consumer.

It aggregates the units of capacity of SMEs and monitors the status of their bookings, thereby facilitating more rapid assessment of periods when bookings are above or below expectations. This in turn informs timely promotional and appropriate pricing responses. From a visitor and supplier perspective the DYMS enables a more comprehensive and rapid response to queries from individuals and groups seeking to book any one or a number of elements which comprise the destination experience. It provides to each stakeholder real time reports, particularly forecasts to all providers of destination services which support the sustainable destination experience.

DYM, therefore, through its DYMS, supports, facilitates and informs Destination Revenue Maximisation which is a function of visitor numbers, their expenditure and the capacity of the destination constrained by local, community and environmental norms. SME revenue maximisation results in destination revenue maximisation. DYM, by bringing together the variables of the visitor (tourists and day trippers) and their associated revenues, supports optimal utilisation of capacity by dynamically managing the relationship between demand and the supply of destination core resources and attractors. This serves to underpin positive, enjoyable and sustainable destination experiences and optimise destination occupancy and earnings. DYM creates a critical mass of enterprises which is necessary to condition the market to pricing structures designed to expand utilisation of capacity, shift time insensitive demand to off peak

periods and offer competitive pricing to time sensitive customers during periods of buoyant demand.

DYM helps to tackle the problem of too high a volume of last minute bookings, through coordinating the implementation of policies on pricing and rate fences, which include incentives for advance purchase, cancellation payments and prepayments. It endeavours to influence the market which an SME acting alone could have great difficulty in achieving. DYM provides a competitive framework within which each stakeholder, particularly SMEs, are orientated towards their role in responding to the needs of the visitor for a destination experience rather than simply the unilateral purchase of a unit of capacity, such as accommodation, a souvenir, a rental car and other tourism services.

The orientation by the SMEs and other stakeholders towards their role in responding to the consumers' need for experiences is achieved through their involvement in developing and then adopting the pricing guidelines and rate fence policies in addition to participating in the competitor analysis. Each SME can provide valuable inputs into the destination competitor analysis (which focuses on other destinations) by gaining insights from guests who are staying in its premises, purchasing goods from holiday outlets, rental service and other destination activities. This facilitates innovations in the destination experience grounding them in the unique aspects which each of the enterprises has to offer. Experiences which have as an essential component the participation of SMEs may more successfully counter both intra-destination competition and external destination competition. DYM leads to a greater total volume of revenues and tourists and higher average revenues per component of capacity than destinations which do not practice DYM.

As a means of representing the issues and topics in DYM, a schematic diagram in the form of a “mind map” (Easterby-Smith, 2002:150) is presented in Figure 4.1 below. It identifies the three constructs, the stakeholders and issues such as competition. Linkages are shown as lines connecting the constructs, i.e., the Destination Core Resources and Attractors provide the motivators which attract the visitors and they are the basis for the destination experiences.

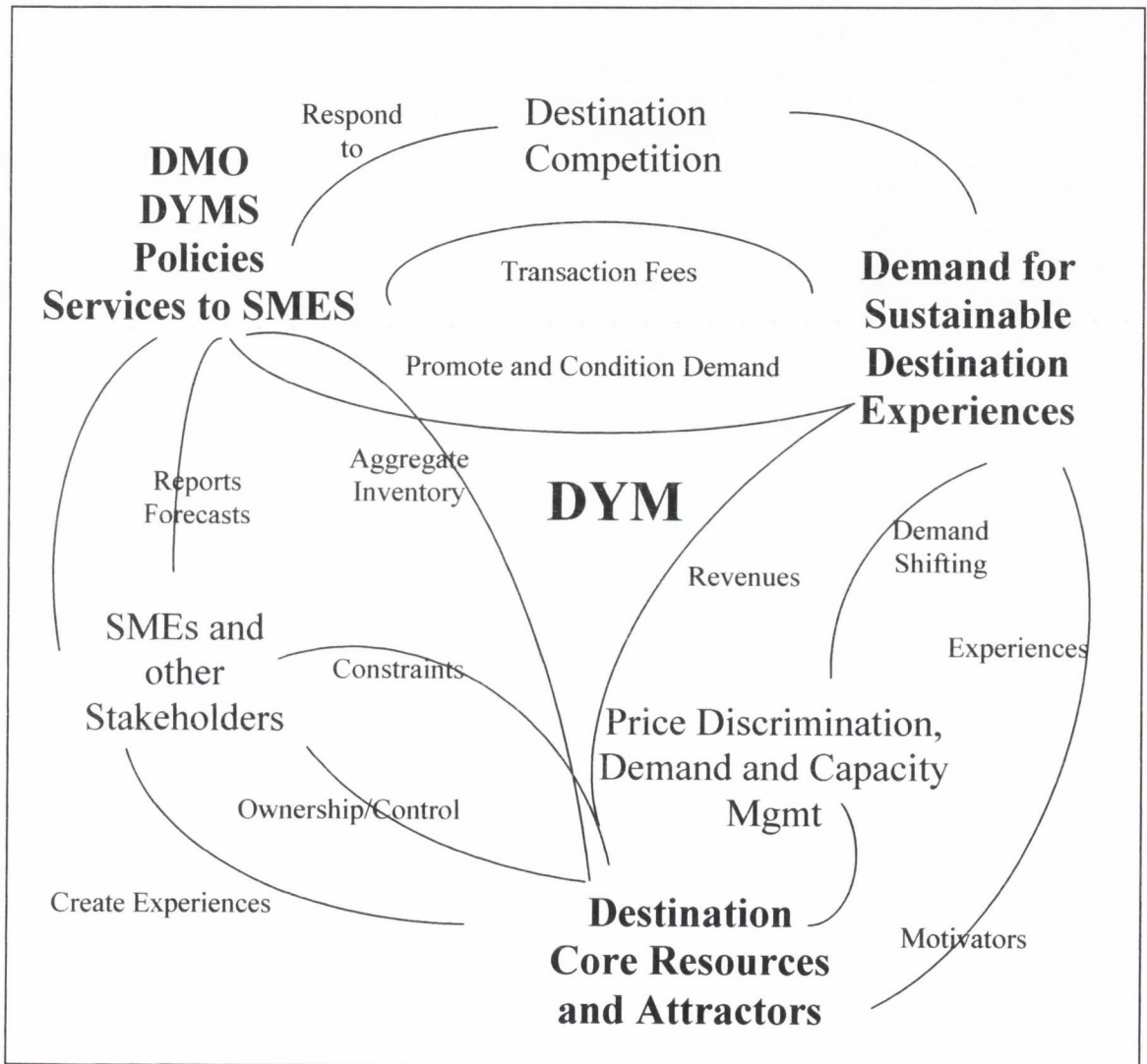


Figure 4.1

“Mind Map” of DYM

Key: DMO: Destination Management Organisation, DYMS: Destination Yield Management System, DYM: Destination Yield Management, SMES: Small (including micro) and Medium Sized Enterprises, Stakeholders: Community, Local Government, Destination Management Organisation.

4.2 Testable Propositions

A central coordinating mechanism enables producers and the DMO to achieve a greater level of precision in synchronising supply with demand. DYM can more rapidly identify periods of slack demand because it is aware of the destination wide status of sold and unsold inventory. It can therefore respond by targeting promotional spend during these periods.

DYM facilitates a more rapid and dynamic response to crises. It is aware of the current status of sold and unsold inventory and is thereby enabled to propose scenarios to meet the challenge. DYM contributes to data warehousing, a more precise level of forecasting and greater analysis of the booking patterns of the consumer.

DYM integrates the community, economic and environmental responsibilities of the DMO with the commercial interests of the SMEs. The competitive framework of DYM orients the involvement of the SMEs towards the visitor's demand for sustainable destination experiences.

DYM contributes to improving value to the consumer by offering unused capacity at rates which certain market segments could not otherwise afford. In turn this increases capacity utilisation and thereby reduces dependency on demand lead pricing at peak periods.

DYM provides the framework and mechanisms which enable YM for SMEs. This is effected through economies of scale by providing a common platform to support and coordinate transactions, market segmentation, pricing, rate fencing, inventory allocation and the required ICT infrastructure.

DYM facilitates SMEs in assisting the pooling of their inventory for the purposes of tendering for group business or prepaid voucher business. It facilitates the operationalising of loyalty points and the offering of slack inventory as a bonus on payment of peak rates.

DYM provides the base for 'reference transactions' which build the case to change perceptions regarding pricing policies and rate fences necessary to operationalise a greater level of price discrimination and rate fencing by all destination SMEs. This avoids

a lone initiative by one SME. The challenge of what would more than likely be an unsuccessful attempt at such a policy if taken on a unilateral basis is taken on by the destinations as a whole.

DYM counters the instability and quality assurance problems caused through last minute booking by providing a critical mass of incentives to encourage early booking.

DYM boosts demand by maximising capacity utilisation, supporting value, diversifying the markets, supporting revenue maximisation by SMEs and increasing total year round spend in the destination.

4.3 Tests and Evaluations for Revenue Maximisation by DYM

Central to this thesis is the view that the DYM is of benefit to destinations by maximising the revenue of SMEs.

Three measures used to test traditional YM in hotels have already been described in Chapter Two, Section 2.6:

Occupancy rate, Average revenue per unit sold, Yield Percentage.

In this way the DMO may demonstrate in absolute terms how it is performing by compiling such statistics for each type of business within the destination and aggregate the data to arrive at a measure of yield for each sector or for all capacity in the destination. However, it is also important to know the extent to which this is relative to the market. Hence, increases in occupancy and revenue need to be compared with those being experienced by competitor destinations. In this way the DMO, indeed all stakeholders, of a given destination may evaluate their performance. The indices necessary for this comparison and their computation are provided in the section which follows.

4.3.1 Explanation of Destination Evaluation Indices

DRGI – Destination Revenue Generation Index

DMPI – Destination Market Penetration Index

DARI – Destination Average Rate Index

The indices are calculated as follows:

Destination occupancy %

$$\frac{\text{Destination occupancy \%}}{\text{Competitive Set Occupancy \%}} = \text{Destination Market Penetration Index (DMPI)}$$

Competitive Set Occupancy %

The DMPI measures how well/badly the destination is doing in terms of occupancy in comparison to its competitive set. Anything over 1 means it is doing better.

Destination Average Daily Rate

$$\frac{\text{Destination Average Daily Rate}}{\text{Competitive Set Average Daily Rate}} = \text{Destination Average Rate Index (DARI)}$$

Competitive Set Average Daily Rate

Destination Revenue Generation Index = Destination Market Penetration Index x Destination Average Rate Index

Destination Revenue

$$\frac{\text{Destination Revenue}}{\text{Destination Potential Revenue}} = \text{Destination Yield \%}$$

Destination Potential Revenue

The Destination yield percentage may be calculated by aggregating the revenues realised by a range of destination providers and expressing it as a ratio or % of the aggregate or potential revenue.

4.3.2 Hotel Accommodation Example

For example the Average Daily Hotel Rate of the destination for the five star category is compared with its competitive set in Table 4.1. Greater than unity signifies the destination is achieving better rates. However, it is the combination of rate and occupancy which signifies how well the destination is balancing volume and price. The Revenue Generating Index illustrates this: where any level above unity signifies that the destination is performing better than its competitors.

These indices and illustrative statistics are provided in a report format below. Such a report could be prepared by aggregating data from all or a sample of sectors in the destination, i.e., for all campsites, hostels, car rental. Comparative data can only be provided by another selected destination. It could be that the Aran Islands in Ireland could compare data with Bornholm Island in Denmark.

Table 4.1 Monthly Comparative DYMS Evaluation with Competitor Group Report

Month	2004	2003	Change %	2004	2003	Change %	2004	2003	Change %
	Market Penetration Index			Average Rate Index			Revenue Generation Index		
Destination	1.06	1.05	0.8%	0.98	1.02	-3.4%	1.04	1.06	-2.6%
Competitor Group	0.98	0.98	-0.4%	1.01	0.99	1.6%	0.98	0.97	1.2%
Ranking	2	2		4	4		4	2	
	Occupancy Rate			Average Rate			Revenue PAR		
Destination	59.1	69.0	-14.3%	219.56	253.99	-13.6%	129.83	175.31	-25.9%
Competitor Group	54.6	64.5	-15.4%	225.65	248.08	-9.0%	123.15	160.02	-23.0%
Total Market *	56.0	65.9	-15.0%	223.68	249.98	-10.5%	125.19	164.69	-24.0%
Year To Date	2004	2003	Change %	2004	2003	Change %	2004	2003	Change %
Destination	1.09	1.07	2.1%	0.97	1.02	-4.1%	1.07	1.09	-2.1%
Competitor Group	0.96	0.97	-1.0%	1.01	0.99	2.1%	0.97	0.96	1.0%
Ranking	2	2		4	4		4	3	
	Occupancy Rate			Average Rate			Revenue PAR**		
Destination	63.2	68.9	-8.2%	223.15	251.98	-11.4%	141.07	173.55	-18.7%
Competitor Group	55.4	62.2	-11.0%	231.75	245.97	-5.8%	128.39	153.06	-16.1%
Total Market*	57.8	64.3	-10.1%	228.87	247.94	-7.7%	132.27	159.32	-17.0%

* Total Market is the Competitor Set

** Revenue PAR = Revenue per available room

This illustrative table which compares a destination's monthly performance in 2004 with the same period in 2003 also includes year to date information for each of the six metrics. Focusing on the current month, note that levels of occupancy are down at 59.1% from 69.0% for the destination. The competition has also been affected and is down to 54.6%

from 64.5%. Notice how the higher level of occupancy translates into a higher Market Penetration Index of 1.06%. However, the higher levels of business attract a lower rate of 219.56 per day less than 225.65 of the competitors. However, the destination has achieved a better balance of occupancy (volume) and rate with a revenue generation index of 1.04.

4.4 Constructs and their Dynamic Interactions

In the theory development of DYM as discussed in Chapter Three, Section 3.6 all constructs may be regarded as focal (Weber, 2003). In identifying the focal constructs, Occam's dictum¹ of parsimony, albeit referring to numerically expressed constructs, is observed. The constructs, their variables and attributes are set out in the table which follows.

Table 4.2 The Constructs, Variables and Attributes of Destination Yield Management

<i>Constructs*</i>	<i>Variables</i>	<i>Attributes</i>
	Measurable aspects of the concept	Characteristics of a variable
Demand for Destination Experiences	Tourist Day tripper	<i>Market Segment Characteristics</i> <i>i.e.</i> Booking Trends
Sustainable Destination Core Resources and Attractors	Overnights Revenues Admissions Inventory	<i>Inventory & Management</i> <i>i.e.</i> Grade of Rooms Capacity of Attractions Prices
Destination Management Organisation (DMO) (including the Destination Yield Management System DYMS).	Production of experiences Destination Yield DYM practice	<i>Evaluators of Experiences</i> <i>i.e.</i> Authenticity <i>Evaluation of Practice</i> Pooling Inventory

* Note: Constructs help to organise, communicate about and understand things that are real. Constructs can work in this way because while not real or observable in themselves, they have a definite relationship to things that are real and observable (Babbie, 2000: 122).

The three constructs identified in Table 4.2 are now described:

4.4.1 Demand for Destination Experiences

As discussed and described extensively in Chapter Two, Section 2.3 the visitor is motivated by a bundle of elements which make up the overall experiences. They rarely

travel motivated by the singular desire to stay in a hotel. Destinations comprise such clusters of attractions.²

This construct is delineated by a focus on the destination and for the consumer framed by the fairness and accompanying reference prices. This latter area is dealt with in Section 4.7 on the Lawful State Space of the theory. A competitive destination's ability to generate demand rests on creating and integrating value-added products that sustain its resources while maintaining market position relative to competitors (Hassan, 2000).

4.4.2 Supply of Sustainable Destination Core Resources and Attractors

This construct comprises the inventory of units of capacity of the destination. In turn, the capacity determines the ceiling for maximum revenue generation. Jafari uses the terms destination and magnet interchangeably (Jafari, 1987). The core resources and attractors are the sine qua non which draws the tourist. It is this construct which may give a location a sense of place (see Box A) (Human, 1999). This is the construct which underpins Urry's concept of the tourist gaze (Urry, 1990, in Human, 1999:80).

Box A

Destinations as clusters of these resources and attractions were described earlier in (Chapter Two, Section 2.4.2) Local government plays a key role through land use, planning approvals and regulation such as environmental health in influencing and managing the spatial structure of the destination, clustering/dispersion of attractions, services, transport and communicating. These processes and the need for a planning culture which embraces the consideration of tourism matters in local government are referred to as destination place management (Dredge, 1998). Proper environmental management can turn deterrents into attractors or prevent attractors becoming deterrents (Mihalič, 2000).

4.4.3 Destination Management Organisation and its Destination Yield Management System

One of the primary purposes of the DMO and its supporting destination management system, the DYMS, is the production, promotion and service quality of destination

¹ 'That descriptions be kept as simple as possible until proved inadequate' or 'Entities should not be multiplied beyond necessity' (Gujurati, 1995:40).

² The lexicon of destination tourism was expanded recently, as destinations were colloquially referred to as "clusters of diversions" (Connolly, 2004).

experiences³ which generate demand, translating that demand into optimal⁴ core and attractor utilisation and supporting the revenue maximisation aims of each SME. The role of the DMO also includes providing effective services, including a common ICT platform to enable SMEs to trade electronically⁵. The destination management systems inter alia provide the mechanisms for Destination Yield Management. It functions by monitoring current demand and by forecasting future requirements suggesting pricing and other policy tactics⁶ which maximise destination revenue.

4.4.4 Statements of the Dynamic Interactions between the Constructs of the Theory

The constructs of the DMO, Demand for Sustainable Destination Experiences and Destination Core Attractors and Resources operate in symbiotic equilibrium.

This is honed in on by Ritchie et al.,

‘when all the complexities of destination choice are stripped away, it is essentially the core resources and attractors that underlie the basic desire to travel to a given destination. These also provide the foundation for an exciting and memorable experience,’

(Ritchie et al., 2003:110).

Within this symbiotic relationship the vibrant role of the DMO is captured by the same author’s phrase as ‘...responsible for the well being of all aspects of the destination’ (Ritchie et al, 2003:74).

³ Smeral (1998) in calling for holistic destination management and flexible production technologies advocates the delivery of ‘commodifiable experiences’ to meet ‘post-modern’ tourism demand. A staged version of a tribal dance in shortened form whereas the authentic ritual might be spread over some days (Gartner, 1996:170) is an example of such an experience.

⁴ The term optimal rather than maximum is used here. Most services have an optimal level of capacity that is lower than the maximum capacity because customers are generally most satisfied when it is neither too busy not too slow (Lovelock, 1997, in Klassen and Rohleder, 2001:3). If it is too busy, service quality suffers (waiting, balking, loss of good will) but equally if volume is very low it suffers in a different way (an almost empty restaurant, too lonely beaches, a very small crowd at a circus).

⁵ Smeral (1998) sees opportunities for destination SMEs meeting the threat of globalisation by building highly integrated destinations with flexible operating networks of alliances to meet individualised customer demand.

⁶ Baker defines the role of the management systems of the destination as ‘a form of regional or national champion of the SMEs’. In explaining the use of knowledge management and destination databases on Cheju Island in South Korea, Pyo et al. (2002:401) explain that, ‘the destination can use the knowledge to determine its marketing strategy and tactics in real time, as changes develop in the market place and new tourist demands arise.’

Matching Supply with Demand = function of (Demand for Sustainable Destination Experiences, Destination Management Organisation (DMO) and Destination Core Resources and Attractors.)

Subject to the capacity of the destination core resources, attractors and constraints of the natural/built environment and the host community

Destination Revenue Maximisation⁷ = function of Revenue Maximisation⁸ by (SMEs other revenue generating units within the Destination Core Resources and Attractors).

Subject to: Water, sanitation, safety, host community⁹ capacity of SMEs, attractions, events and natural/built environment.

Destination Revenue Maximisation¹⁰ is a function of:

(Tourists) (Daytrippers) (Overnights) (Revenue) (Admissions)

Subject to Constraints of: Destination Core Resources and Attractors, Accommodation, Natural/Built Environment and Host Community

Rooms (Type, Grade, Location, Restrictions, Volume) Attractors (Capacity)

The Statements of Theory are prescribed by the Lawful State Space and Lawful Event Space which are provided in Sections 4.6 and 4.7 respectively.

⁷ The inextricable link between the destination SMEs and the wider destination may be summed up by reference to Adam Smith's comments, 'It is not from the benevolence of the butcher, the brewer or the baker that we expect our dinner, but from their regard to their own self interest...By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it.' (Smith, 2003)

⁸ Withiam (2001:3) captures the essence of revenue maximisation stating 'The ideal outcome of a revenue management strategy is to match customers' time and service characteristics to their willingness to pay – ensuring that the customer acquires the desired service at the desired time at an acceptable price, while the organisation(s) gains the maximum revenue possible given the customer and business characteristics....based on customers' demand levels management can shift demand of those customers who are relatively price sensitive but time insensitive to off peak times. Shifting that demand clears prime times for customers who are relatively time sensitive but price insensitive.

⁹ It should not be assumed that revenue maximisation as formulated here necessarily means always endeavouring to attract the highest spending or wealthiest individuals. Research has shown that where too great disparities exist between visitors from different cultures and life-styles a so called demonstration effect may ensue. This causes economic, social and political impacts – which may lead to a feeling of exploitation. Cultural deterioration may also occur (WTO,1997:15) Gartner provides examples from tropical islands, 'where locals have become part of the beach bum crowd. Whereas the tourists can return home and recharge themselves financially and emotionally, the local beach bum finds that he has adopted a monoculture with few psychologically counterbalancing opportunities' (Gartner, 1996:168).

¹⁰ Destination Revenue Maximisation has already been described in Chapter Two, Section 2.1.3 as: ***"Destination Yield Management is Revenue Maximisation for multi entities operating in a single sector and/or multi sectors in a given destination. "***

4.5 Variables

4.5.1 *Tourists, Day-Trippers, Overnights, Admissions, Production of Experiences, Destination Yield and Membership Levels*

From a demand or market segment perspective, Leiper's comment on the reasoning underlying the difference between the definitions of these terms is useful,

'The overnight stay criterion demarcates tourists from day trippers, partly to isolate tourism from this far larger phenomenon and partly because overnight stays influence the psychological sets of the participants. The change in routine stemming largely from overnight stays effects behaviour patterns¹¹, giving tourism a discrete characteristic within the leisure spectrum.'

(Leiper, 1979:395)

The technical definition of a tourist has been provided already in Chapter Two, Section 2.2.1.

Overnights are in turn generated by tourists and the total volume is then calculated. The destination may elect to track any number of attributes of each segment of the market – the example in Table 4.1 is booking trends which are tracked by the DYMS.

Admissions refers to the volume of traffic through each attraction. Revenues and inventory associated with all destination core resources and attractors are measured. Examples of attributes include the grade of all accommodation inventory, the capacity of each attraction, the prices of admission and the prices of accommodation.

The number of innovations in experiences is measured. As stated earlier in Section 4.4.3 this is one of the DMOs primary purposes. Experiences may be evaluated under such headings as authenticity.¹² The metrics for Destination Yield were fully discussed earlier

¹¹ Jafari (1987) sees the tourist emancipated from ordinary bounds and metamorphosed into a tourist. The tourist can now play any role of his choice – practical jokes by middle – aged conventioners, the 'have nots' pretentiously acting rich.

¹² Authenticity reflects a 'sense of place'. It represents what currently exists, cultural, historical and natural resources form the foundation of establishing authenticity. Development of authentic attractions and associated experiences are more compatible with a sustainable development strategy. In general terms, the farther removed from an authentic attraction the destination community becomes, the greater potential for higher levels of sociocultural impacts, but also for higher economic returns (Gartner 1996, 358 and 360).

in the chapter in Section 4.3. Membership levels refer to the number of stakeholders and SMEs participating in DYM.

4.6 Lawful State Space of the Theory

All transactions meet the criterion of fairness (see box B).

Destination Yield Management extends to those destinations where the constructs identified in the theory are present – mature destinations with an ICT infrastructure.

Respect non-regulatory local customs and agreements.¹³

Box B

Researchers, in particular Kahneman, Knetsch and Thaler, have shown that fair behaviour is instrumental to the maximisation of long-run profits This centres on:

- i. 'reference transactions' – how a customer *thinks* how much a given service should cost. Reference prices come from market prices, posted prices and past experience with the company
- ii. Customers believe that the value to the firm should equal the value to the customer, this leads to the principle of dual entitlement: customers believe they are entitled to a reasonable profit. Three hypotheses emerge
 1. Customers feel that raising the price to *maintain* profits is fair. If costs increase, customers consider it reasonable for the price of the service to increase
 2. Customers believe that raising the price to *increase* profit is unfair
 3. If costs decrease, customers believe that it is reasonable for the company to maintain the same price (Kimes, 2002).

4.7 Lawful Event Space of Theory (Defined by Regulation)

DYM complies with the laws^{14 15} and regulations¹⁶ applicable in the country of

¹³ Surfing for fun and fishing for a living provides an intuitively appealing and very specific example. Surfers are used to free access to surf breaks, but this culture is derived from Europe. On Pacific Islands and in South East Asia, the local cultures have a Polynesian, Melanesian or Micronesian background. Excluding Hawaii, surfing is not part of the local culture, but fishing is subsistence fishing. Consequently every village controls access to nearby seas and reefs. For foreigners to surf without permission, therefore, is certainly rude, possibly illegal under customary law (Buckley, 2002).

¹⁴ A fascinating case which illuminates many issues germane to yield management came before the US courts in 1990. It involved Rainbow Travel Services (TRS) and Hilton Hotels. In the course of giving evidence Hilton stated its policy was to book up to one hundred and fifteen percent of capacity – based on historic no-show rates. RTS quoted the fictitious pro forma excuses provided in Hilton's manual which included 'burst pipes, broken glass, malfunctioning air conditioning etc and the advice 'always remain calm and as pleasant as possible'. RTS were awarded \$37,5000. Overbooking is not illegal in the USA but a good deal of evidence given during this case showed that the instance of getting it wrong was not an isolated incident. Hence the award to RTS was for damage to reputation (Tenth Circuit, 1990).

¹⁵ EU Competition law prohibits 'concerted practices' involving cartels or 'gentlemen's agreements' (McMahon et al., 1989:423).

Operation. In this regard protocols agreeing the uses for which information is applied are agreed between the DYM and the SMEs and other participants.

4.8 Brief Description of the Functioning of DYM

The functioning of the DYM from customer query to reservation is described in this section and is represented in Figure 4.2 which follows.

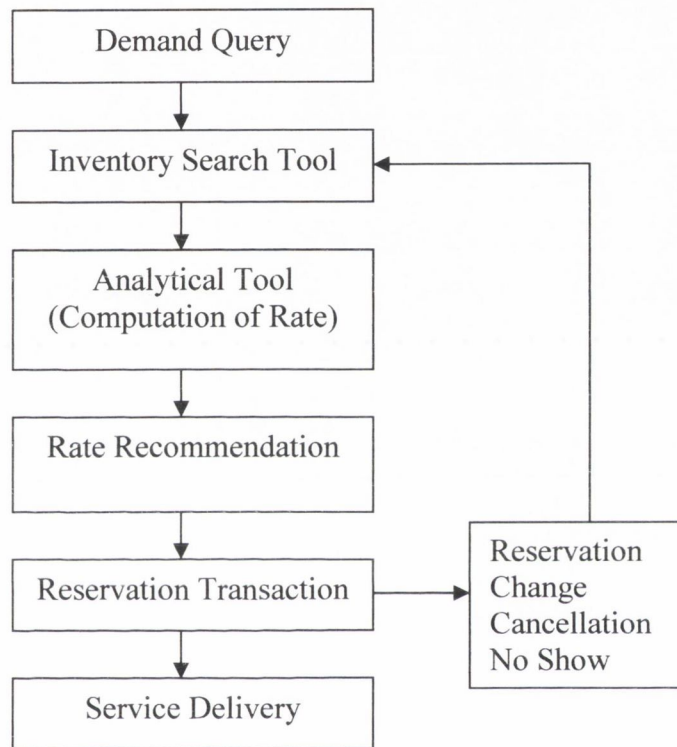


Figure 4.2 Description of the Functioning of DYM

4.8.1 Demand for Destination Experiences

The customer presents himself/herself in person (walk in) or more likely by phone, by Internet via a channel such as a Global Distribution System (GDS), or a travel agent.

4.8.2 Inventory Search

The DYMS searches its database of inventory to determine what capacity is available to meet the customer's needs.

¹⁶ In the EU, regulation governs the level of compensation which an overbooked airline passenger is entitled to claim. Such regulation currently exists for airline passengers only (Irish Government, 2004).

4.8.3 Analysis Modelling Sub-System

The DYM matches available capacity from the providers (SMEs) with customer's requirements (duration of stay, time of stay) and combines this with the rates which are available at the time. For each provider that has inventory available which satisfies the customer's requirement, the system computes the rates (See Box C) which are applicable and recommends these to the customer.

Box C

Marginal Revenue Approaches

To decide how many units to sell at discounted cost and how many to reserve for full pricing paying customers, Bodily and Weatherford (1995) advocate the use of a simple decision rule. The total contribution, which must be maximised, can be written as:

$$\begin{aligned} & q_d R_d + X R_f \text{ if } q_d + X < q_c \\ & q_d R_d + (q_c - q_d) R_f \text{ if } q_d + X \geq q_c \end{aligned}$$

Where: R_f is the revenue a full tariff generated; R_d is the revenue a discount tariff generates; q_c is the capacity of the service; q_d is the maximum number of discounts.

The basic idea is to increase the availability of discounted spaces (q_d) when the number of full price customers are added becomes unacceptably high. If the probability of 'spoilage', i.e., of having empty spaces ($q_d + X < q_c$), is p then the decision rule is given by:

Continue to offer discounted spaces until:

$$p R_d + (1 - p)(R_d - R_f) > 0.$$

This can be simplified to:

Reserve an additional discounted customer if:

$$p > \frac{R_f - R_d}{R_f}$$

For example, suppose that a reservations manager was managing a hotel with 100 rooms of the same type and there was a policy of letting some rooms at a 40 per cent discount. Rooms would be offered at the discount price provided that the probability of not reaching capacity was greater than 60 per cent.

The spoilage probably can be estimated from the forecast demand. If the forecast demand for full price paying customers has a continuous probability distribution then the '>' sign can be replaced with an equals sign to give an exact relationship.

Suppose that in the above example the demand for rooms was normally distributed with an expected level of 60 rooms and a standard deviation of 15 rooms and that the full price of each room contributes to £150 to fixed costs. The number of rooms to be discounted would be obtained from the probability of spoilage. The probability of the spoilage is to be equal to:

$$\frac{60 - X}{150} = 0.4$$

If X rooms are retained for full price sale, X is found from the inverse of the normal probability distribution.

$$\left[\frac{60 - X}{15} \right] \leq \phi(0.4) = 0.255.$$

Thus $X = 60 - 0.255 \times 15 = 60 - 3.825 = 56.175$. Thus 56 rooms should be retained at full price and 44 offered at discount.

The expected revenue is obtained from:

$$EC = Yr_f + q_d r_d - c_v(Y + q_d)$$

Where Y is found from:

$$Y = \bar{D} - s_d \phi \left(\frac{C - q_d - \bar{D}}{S_D} \right) + (C - q_d - \bar{D}) \left[1 - \phi \left(\frac{C - q_d - \bar{D}}{S_D} \right) \right]$$

Where \bar{D} is the expected demand; s_D is the standard deviation of demand; c_v is the variable cost; r_f is the full price; r_d is the discounted price; q_d is the quantity of discounted; C is the capacity; and Y is the number of rooms sold at full price. In Table 4.1 the expected revenue for different combinations of discounted and full price rooms is given, confirming the optimum to be 56.

Table Expected Revenue

Number of full price rooms	Number of discounted rooms	Expected revenues £
100	0	8,697.43
70	30	10,921.31
56	44	11,251.63
30	70	10,281.53
0	100	8,499.98

Source: Ingold, Anthony, Una McMahon-Beattie and Ian Yeoman (2000) 48 – 50.

Note: X is the number of rooms allocated for sale at full tariff.

4.8.4 Rate Recommendation

The DYMS then displays/proposes a schedule of available options, and a display of one or a number of providers. The customer may wish to interrogate further and search into the individual provider's website for details of his/her facilities.

4.8.5 Reservation Transaction

The DYM enables the selected offer to be accepted and payment made. The DYMS updates its database on the outcome of each enquiry. Each outcome may consist of the following categories as outlined in Figure 4.1.

Query, information requested, recommendations, no sale made, reasons for no sale recorded if this information is available.

Query information requested, recommendations, pricing plan, sale and confirmation, visitor experience feedback.

Query information, requested, recommendations, price plan, sale – confirmation cancellation of sale.

Query, information requested, no capacity available to meet need.

Each of the above may be analysed to review marketing strategies. In the sections which follow the detailed process of DYM which focuses on decision support for Revenue Maximisation for SMEs is described. There is a general overview of the DYMS architecture which incorporates the processes just described in this section.

4.9 General Overview of the DYM Architecture

Figure 4.3 summarises the principal components and information flows of the DYM architecture.

The previous section has already described the query and reservations making process. The dotted line in Figure 4.2 shows that the consumer, depending on the wish of the SME proprietor, may also access the SME directly to make a transaction. Through interface with the SME these direct transactions are also recorded. The thrust of DYM is to provide each SME with a common platform which allows them effectively to ‘outsource’ this function to the DMO. The remaining operations are now described in the next section. The links to these sections appear in Figure 4.2 also.

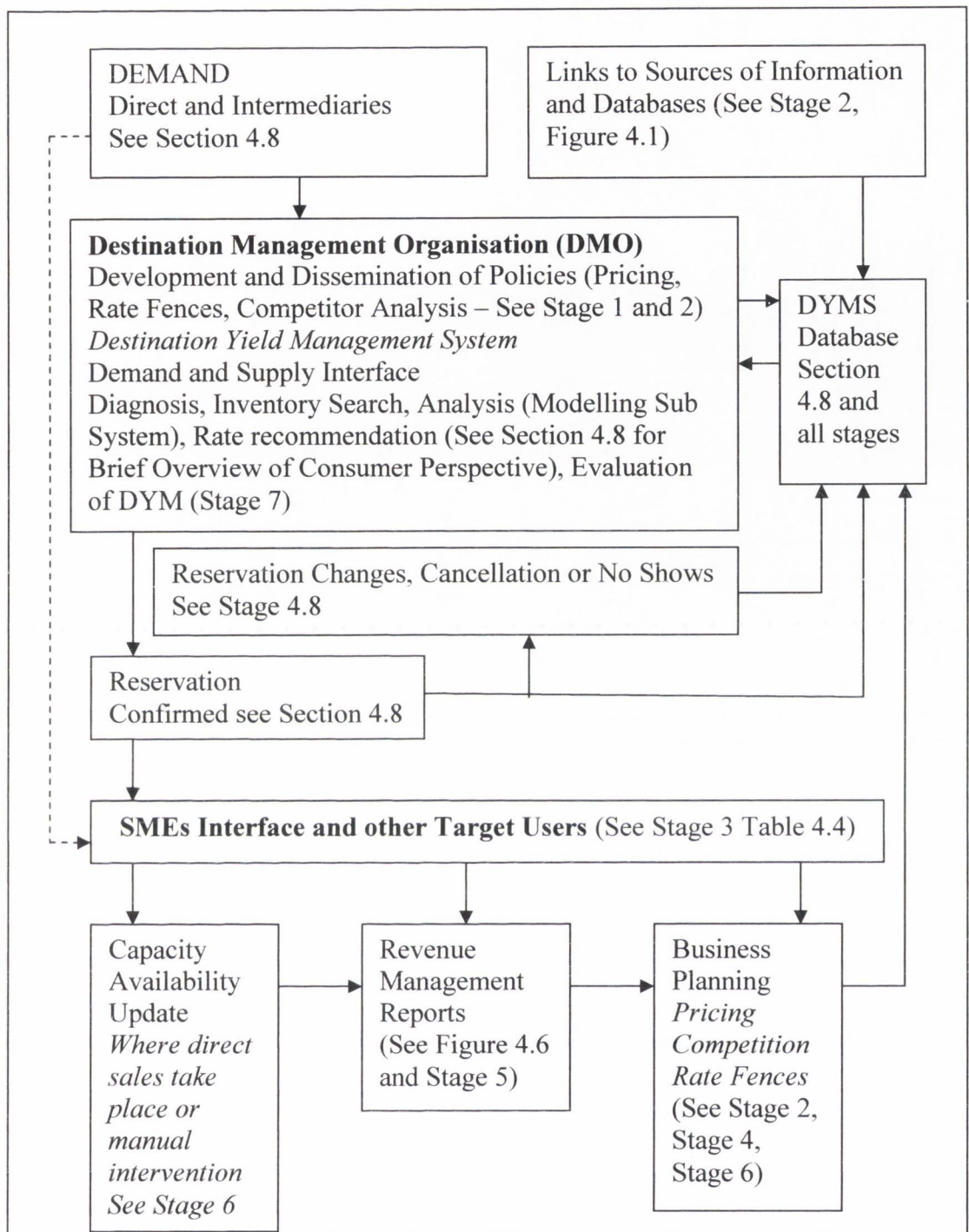


Figure 4.3 The DYM Architecture

Source: Author

The operational processes required to activate the architecture are described in the next section. These operational processes are linked to the DYM architecture through their stage numbers.

4.10 Operationalising the Process of Destination Yield Management

In Figure 4.4 the stages involved in operationalising destination yield management are outlined. This is followed by a detailed description of the process.

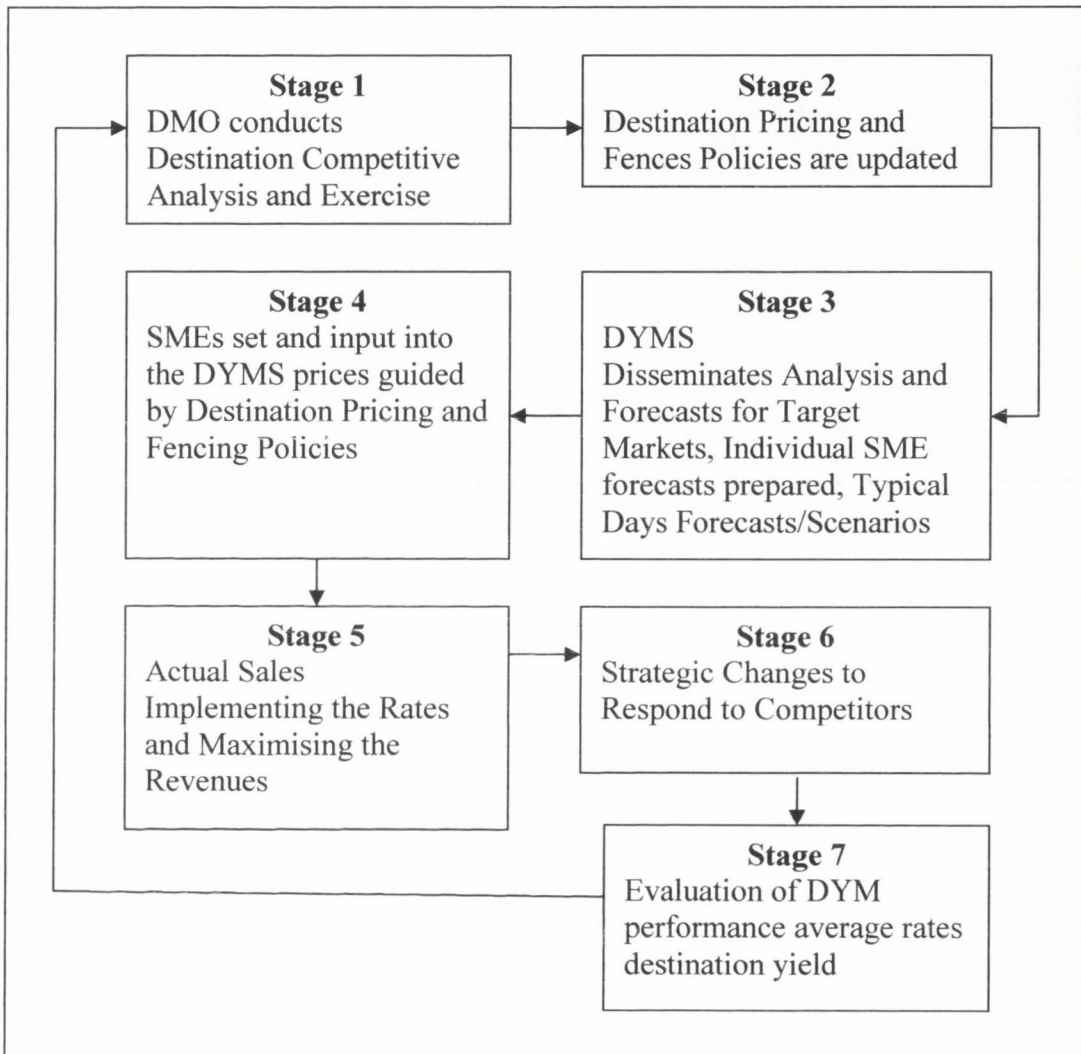


Figure 4.4 Operationalising the DYM Process

4.10.1 Stage 1 DMO Conducts Destination Competitive Analysis

The DMO conducts and completes a Destination Competitor Analysis Policy. This is a high level exercise and involves the following steps.

- a) Determine what are the competing destinations for the segments and visitor experiences which are on offer.¹⁷

¹⁷ Small tourism companies compete within the specific geographic area of the destination. However the consumer in making their choice looks outside the area. As Smeral (1998:374) has argued, 'the most

- b) Analyse each competitor for his/her strengths and weaknesses for each category of accommodation.
- c) Relate the Destinations Core Resources and Attractors inventory to the competition.
- d) Recommend competitive bands of rates for each destination activity and service.

4.10.2 Stage 2 Destination Pricing and Fences Policies are Updated

Update the Destination Pricing Policy and Fence Policy. The content of these policies is discussed in more detail later in the chapter.

The following is a selection of fences which could be applied by accommodation providers in a destination.¹⁸ A more complete list is provided in Appendix 1.

Table 4.3 Sample of Possible Rate Fences

Required stay over Friday or Saturday. Max Length of Stay 3 nights.
Required stayover Saturday. Min Length of Stay 2, Max Length of Stay 5. One night penalty if cancelled within 7 days of arrival.
Bookable 7 days or more before arrival. Available all days of the week.
1 night deposit is required. 1 st night cancellation fee will apply if entire stay is cancelled or the arrival date is changed within 7 days of arrival.
Requires 1 st night deposit that cannot be refunded and arrival date cannot be changed.

4.10.2.1 Destination Pricing Policy

This policy is a schema of rates for all activities and services also based on an analysis of the competitor set of destinations but equally based on analysis of the consumer behaviour of the historical and prospective constituency of visitors for the destination.

important effect of globalisation is an intensified competition through market extension: more and more destinations competing with each other. A significantly higher market transparency regarding prices and/or other comparable destination attributes has additionally increased competition’.

¹⁸ As section 3.5.1.5 already discussed, SMEs have difficulty in taking unilateral action on pricing policies, such as advance purchase and cancellation fees. Yet consumer surplus theory requires rate fences to achieve revenue maximisation. Belobaba (1987: 71) in his research on airline pricing practices established that American Airlines despite being one of the largest carriers in the United States was obliged to curtail its pricing policies and associated rate fences as it was too far ahead of the rest of the market. Likewise, the Marriott Corporation counselled its individual hotels to apply rational pricing or a price discrimination approach only in situations where it occupies a leadership position in the local marketplace (Marriott, 1996).

The policy will provide guides regarding the differentials which can feasibly exist between the range of rates for services, such as accommodation i.e., the percentage difference between a weekend rate and a discount weekend rate, the percentage difference between corporate rates and leisure rates.

4.10.3 Stage 3 DMO Disseminates Analysis and Forecasts for Target Markets, Individual SME Forecasts Prepared, Typical Days Forecasts/Scenarios

The DMO communicates the updated policies to all SMEs and requests them to determine and confirm their rates for the forthcoming season. Each SME is provided with a comprehensive range of forecasts which includes:

- a. Analysis of historical data and forecasts of each day by rate segment.
- b. Walk in business and cancellations where applicable.
- c. Forecasts for the destination for each target market by segment showing increases/decreases on previous years.
- d. Details of the current promotion plan for all markets

The operation and range of forecasting activities is now detailed. The importance of tourism demand forecasting is described in Box E.

4.10.3.1 Forecasting

The level and quality of forecasting is a key part of the DYMS. Hence, in addition to having links with its sources of information each of these sources is also provided with information regarding the flows of visitors expected into the region.¹⁹

The DYMS is dynamic in that as reservations arrive forecasts reflect this. There is a learning process continually at work. The sources of information for forecasting are set out in Figure 4.5 below.

¹⁹ In Austria considerable thought is devoted to mitigating travel impacts by reducing the use of automobiles to travel to destinations where there are large scale festivals or festivities. This is principally done through incentivising public transport but also promotions to build awareness of the pollution caused.

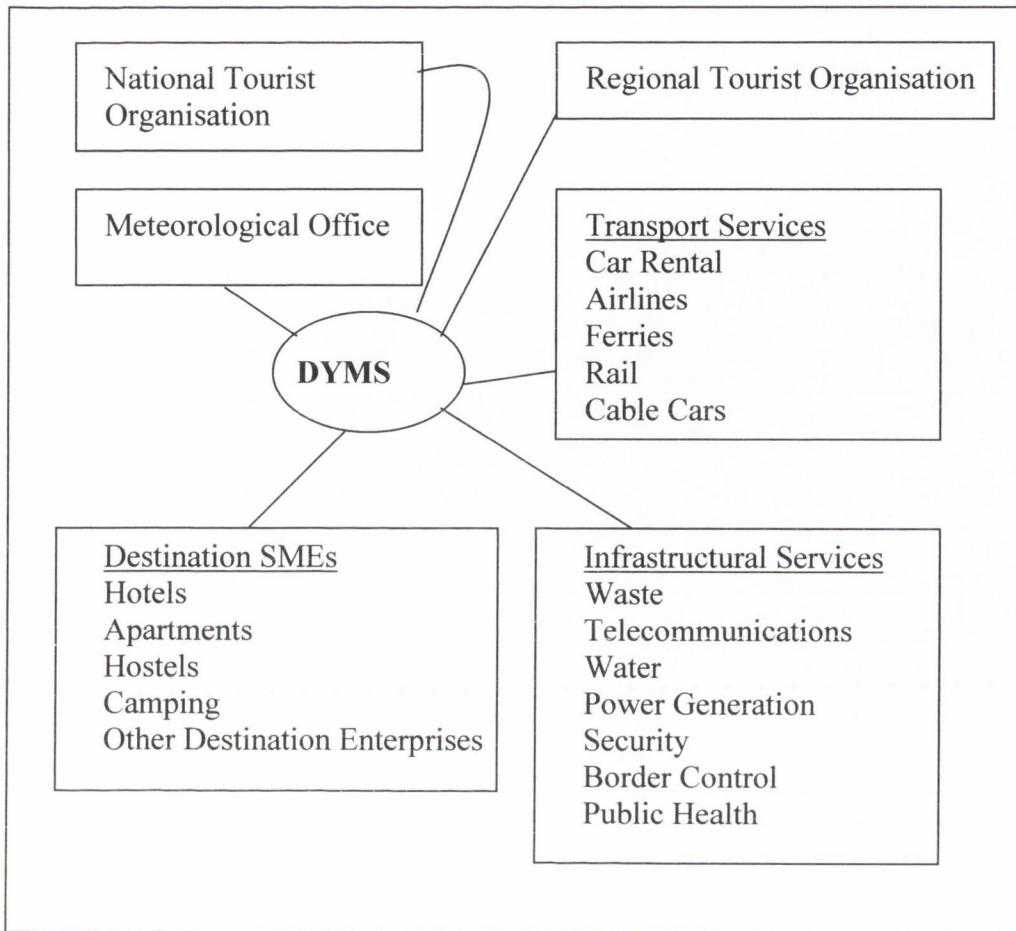


Figure 4.5 Integrated Destination Yield Management System – Links to Sources of Information and Databases

Source: Adapted from Mulvey and Dzidonu (1998).

The forecast model makes allowances for overbooking policies and includes likely percentages of no-shows.

Because price changes affect demand, the model considers the likely change in demand in response to a given price change incorporating competitor destination responses.

The model must have the capability to forecast group business. Group business is important as it may displace other lucrative business but a series fills capacity at slack times.²⁰

The SME may also be assisted by reference to analysis performed by the DYMS which assembles profiles of 'typical days', i.e., patterns of days which have a certain composition of market segments and the timing of such days. This assists building a forecast and rate mix.

The pace at which each market segment makes reservations may be plotted analysing the number of days in advance of arrival that each segment makes reservations. DYMS uses these statistics when performance falls behind or accelerates ahead of its normal booking pattern. This analysis can be carried out for groups and also for specific seasons within the year. The manner in which this information may trigger a response is discussed in more detail in Section 4.10.5.

DYMS can also make comparisons between pace of reservation build-up by accommodation type and measuring responses to promotions. This information can be used to review rate fences such as advance purchase plans.

The DYMS provides individual SME analysis based on individual historical data but also provides forecasts based on aggregating the data drawn from all similar establishments in that particular grade or category – hence maximising the benefit of larger amounts of data.

In addition to providing decision support to SMEs, the DYMS will provide information in the form of visitor forecasts to other bodies which provide services that support the destination experiences.

²⁰ A study of forecasting errors for group business found, not surprisingly, that the average forecast error declined and the forecast error declined over time. Large hotels forecast group business more accurately than small properties. (Withiam, 2001:16).

Table 4.4 Target Users

Target Users

Enterprise Proprietors	Purchasing Managers
Regional Tourism Managers	Car Rental Executives
Transport Managers – Rail, Air, Shipping	Environmental Officers
Accommodation Managers	Local Government Departments:
Utilities – Power, Water	e.g. waste collection, clean up services,
Park Rangers and Managers	lifeguards, police, and customs officers

The aim of providing such forecasts is to support the timely and efficient deployment of resources which underpin the destination experience.

The forecasts can be accompanied with information on the correlation between market mix and demands on resources and services per capita, such as litter/waste, security, rescue, medical, water, community issues, environmental damage.

Box E

The Importance of Tourism Demand Forecasting

1. *The tourism product is perishable.* This puts a premium on shaping demand in the short run and anticipating it in the long run, to avoid both unsold 'inventory' on the one hand and unfulfilled demand on the other.
2. *People are inseparable from the production-consumption process.* Much of the production-consumption process involves people interacting as suppliers and consumers, such as hotel staff, waiters and waitresses, flight attendants and entertainers. This puts a premium on having enough of the right supply personnel available when and where visitors need them.
3. *Customer satisfaction depends on complementary services.* While a hotelier directly controls only what happens to guests in his or her hotel, the visitor's experience depends on satisfaction with a host of goods and services that make up the visit. A hotel's future demand, therefore, depends on the volume of airlines flights and other transport access to its area, the quality of airport services, the friendliness of taxi drivers, the quality and cost of entertainment and the availability of recreational opportunities, to name just a few of these elements. Forecasting can help ensure these complementary services are available when and where future visitors need them, which will rebound to the benefit of the hotel or other individual tourism facility.
4. *Leisure tourism demand is extremely sensitive to natural and human-made disasters.* The ability to forecast such events and their projected impact on tourism demand can help minimise the adverse effects of catastrophes on the tourism-related sales, income, employment and tax revenue of a place

Adapted from Frechtling (2001:5-6).

4.10.4 Stage 4 SMEs Set Prices guided by Destination Pricing and Fencing Policies

The SMEs prepare their rates with the guidance of the output of the following policies referred to earlier in Stages 1 and 2.

a) Destination Competitor Analysis Policy

This facilitates each SME having a view of the prices its corresponding providers achieve in competitor destinations and how its destination is positioned within this competitor set. Hence, a destination which deems itself to be in a leadership position in the set may accordingly price its services at a premium. Likewise, a destination in a leadership position may have concluded that in the five star hotel sector its provision is less competitive and for that particular segment may advise pitching its rates slightly lower. Accordingly this advice may be considered by the relevant SME and balanced by considerations of local factors, i.e. a particular enterprise may have a prime location which commands a premium.

b) Destination Pricing Policy

For each provider the Destination Pricing Policy provides guidelines on building a rate structure, rack rate and lowest rate for a similar product. These decisions are also supported by reference to forecasts for the individual SME provided by the DYMS.

c) Destination Fences Policy

The SME selects those fences which are appropriate to its market segments and category of accommodation. Implementation of a common policy on fences is important as an individual SME, unless dominant in the market place, may have difficulty in unilaterally enforcing conditions attached to its rates.

In summary, the purpose of these policies is to provide guidelines to assist each SME to set and pitch its prices in a manner which has an overall coherence, such that the consumer understands the reason for the range of rates.

When each SME has decided its rates, these can be inputted into the DYMS. Hence the policies disseminated by the DMO are ultimately guidelines and the final decision is a matter for each enterprise.

4.10.5 Stage 6 Actual Sales Implementing the Rates and Maximising the Revenues

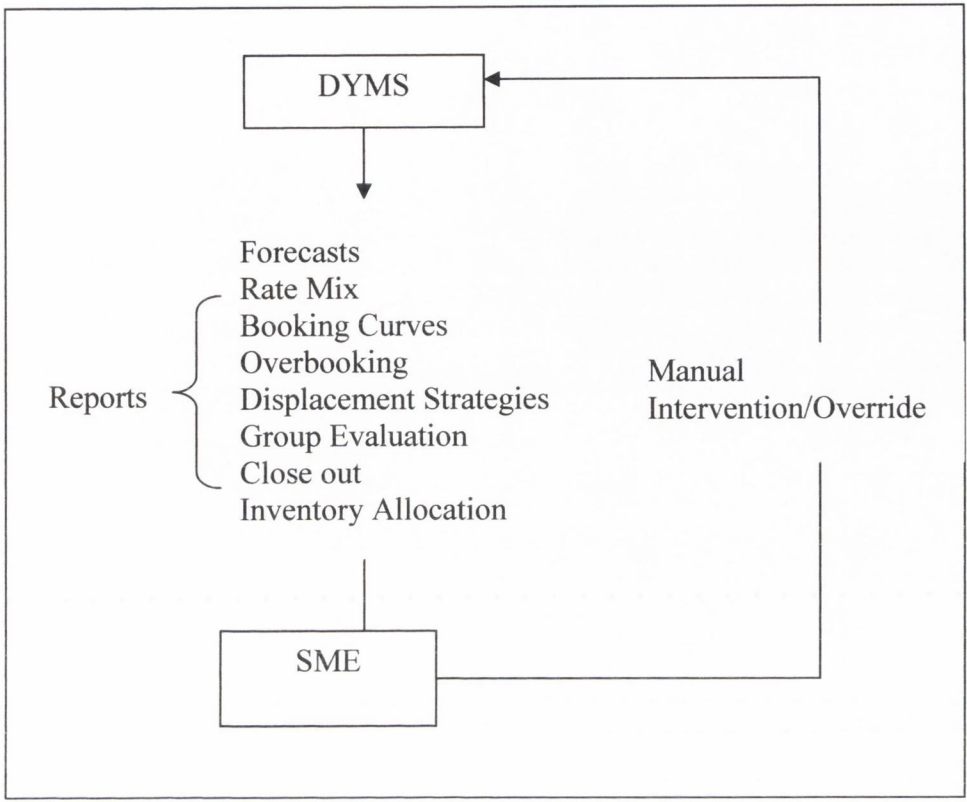


Figure 4.6 Implementing the Rates and Maximising Revenue

4.10.5.1 Reports

Reports on each of the topics listed are accessible by the SME in relation to its own property and destination wide information.

4.10.5.2 Manual/Override

Each SME may decide to manually override the decisions or recommendations at any time. At the level of the SME the aggregation of data facilitated by the DYMS supports a superior quality of prediction. The DYMS performs the optimisation and inventory allocation as an enterprise-by-enterprise exercise. SME proprietors can view these decisions and the output of any qualitative data, then make decisions to override if they feel this is required. The detail of this is now described.

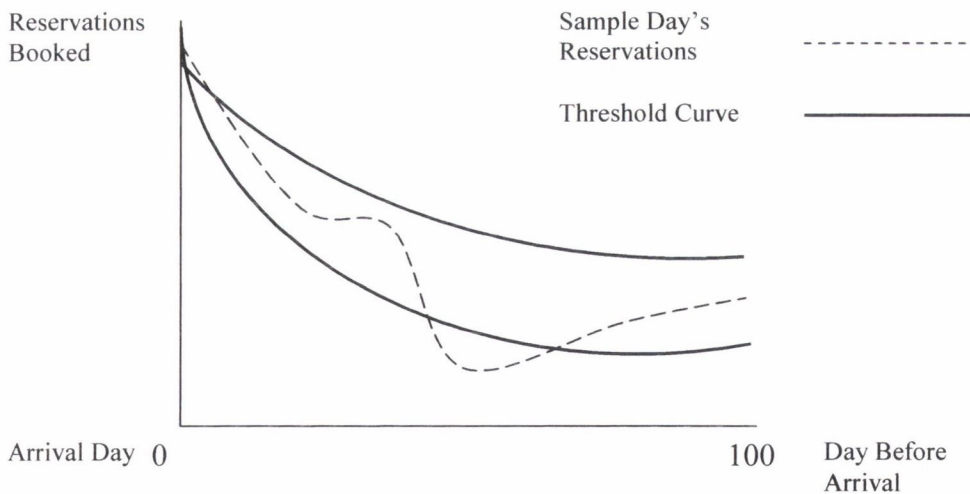
4.10.5.3 No Intervention or Automated Responses

Although each SME may decide at any time to manually intervene to change allocations or rate mix, there is also the option to allow the system to implement certain strategies in response to specific triggers.²¹

The following tactics may be implemented: for periods of buoyant demand, where walk-in guests are common, the DYMS may signal to enterprises that rate segments should be closed down when confirmed bookings reach a certain level of capacity, say 90%. The automated strategy would reserve the remaining 10% for rack rate business exclusively in the remaining period to rental date and the balance to be available for walk in guests on rental day itself.

Threshold Curves

The purpose of a threshold curve is to trigger action if at any time in advance of rental date bookings are above or below expectations



In the graph above, the band between the smooth curves depicts the “threshold values” or the expected demand pattern for this hotel in this market on this day. The actual booking level is represented by the line between occupancy points, one for each day. When actual bookings vary from the expected or ideal pattern, that date is flagged as having potential to generate more revenue by adjusting rates, i.e., make discount rates available or restrict discounted rates. Source: Relihan, 1989, 43

4.10.5.4 Destination Rates by Accommodation Type/Availability Control Report

For the purposes of forecasting, controlling inventory and promotion to target markets each rate schedule is mapped onto a broader rate segment. This is demonstrated in Table 4.5 for the example of accommodation rates.

In the sample portion of this report three rate segments are displayed A, B and C. The A segment contains the rack rates which are for the set of people whose plans are such that they cannot avail of any other rates.

B contains the leisure rate schedules (DLW, DLM and DLE).

Another rate segment listed here is C which contains the conference rate schedules (DC1 and DC2). This features hotels who are responding to delegates with rate schedules for one night stay or a minimum two night stay.

For each rate segment, and therefore their corresponding rate schedules, there is a forecast prepared which is relayed to the providers. Inventory control is operated by either rate segment or room type. Each segment carries a forecast for each day by category of room. The forecast is expressed in terms of the level of inventory which will be absorbed by that segment. Hence, in a period of buoyant demand a forecast may predict that all accommodation in five star will be saleable at rack rates. In which case each five star would be expected to 'close' its other rate segments and hold off for the rack rate demand. Alternatively, the forecast may project that 75% of five star accommodation will be booked at that rate. There is then a decision to be made by each five star hotel. Within the five star market each operator takes a view of what share of the 75% he/she/it are likely to secure. This bears on the positioning of each provider in the rate schedule combined with what facilities he/she/it offers. It may be that a well located five star with rates pitched just below its highest prices will always take a disproportionate share and may decide to close out all other rates. A less dominant provider may still keep one or two other rate segments open to guard against unsold inventory. Each provider is also supplied with an individual analysis based on these past performances. Forecasts are updated as reservations are confirmed.

Table 4.5 Destination Rates by Accommodation Type/Availability Control Report

Destination Level Availability Control						
Rate Segment Codes Availability Control	A	B			C	
Rate Schedules Availability Control	Rack	DLW	DLM	DLE	DC1	DC2
Room Types						
5 star						
Penthouse						
Deluxe						
Superior						
Standard						
4 star						
Deluxe						
Superior						
Standard						
3 star						
Standard						
Single						

Key: Rack = Full Rate, DLW = Destination Leisure Week, DLM Destination Leisure Midweek, DLE = Destination Leisure Weekend, DC1 = Destination One Night Conference, DC2 = Destination Two Nights Conference

4.10.6 Stage 7 Strategic Changes to Policies to Respond to Competitors or Crises

Monitoring of Destination Competitor actions and preparation and evaluation for a range of responses to meet competition. Responding to a campaign of discounts by a close competitor can be informed by the DYMS and appropriate addendums to policies provided.

A decision to extend the season through either the introduction of a new product or pricing capacity at much lower levels at periods of slow demand may feasibly be undertaken. This counteracts the natural tendency for a lone operator to constrain the season and keep prices high. The DYMS can inform the type of finely tuned fences required to avoid dilution of rates and high spend business ‘spilling’ into the lower priced products.

DYMS can aggregate the performance of each distribution channel. This includes volume of business delivered, timing, value of spend, estimates of ancillary revenue, fees paid and cancellations. This bears upon negotiations of arrangements for the forthcoming period. It also tracks volume for the purpose of loyalty points and minimum levels of reservations required to qualify for a particular rate.

Through analysing the displacement or otherwise of groups or conference bookings a DYMS can advise which hotels will most profitably accept such a booking whilst maintaining the same price to the consumer. The business mix will always be different between a number of hotels. Where the opportunity cost is highest and the hotel accepts a booking the displaced business may go to another destination – lowering total demand – and the DYMS could work to influence the group to go to the provider with the lowest opportunity costs. In the event of a crisis which affects demand, such as a foot and mouth disease outbreak or a terrorist attack, the DYMS can inform the destination's optimal response to reinvigorating demand.

4.10.7 Stage 8 Evaluating the DYM

The metrics used to evaluate the DYM have been discussed in detail in Section 4.6.

4.11 DYM and the Participation of SMEs and other Stakeholders

Despite competitive pressures ten countries attract approximately 70% of the international tourism market (Morgan et al., 2003). There are, therefore, powerful arguments for destination management and associated marketing. How is it achieved?

Branding of destinations is viewed as the means to communicate experiences to the consumer (Morgan, 2003; Prideaux, 2002), 'as style and status indicators, destinations can offer the same consumer benefits as other more highly branded lifestyle accoutrements' (Morgan, 2003). Finding an optimal mix of government and private sector participation is argued for by others (Socher, 2000; Bieger, 1998, in Socher 2000; Keller, 1998, in Socher, 2000). Where several countries are promoting an experience the need for strategic alliances is the solution for the examples of the Mekong Delta (Henderson, 2001) and the Mediterranean region (Pechlaner, 2000). An environmental approach and/or land use approach is seen by others as the key to success (Mihalic, 2000; Hassan, 2000; Dredge, 1998). The benefits of social inclusion are also demonstrated by

case studies focusing on Turkey (Tosun, 2001) and the Pacific Island countries of Vanuatu and Niue (King, 2000).

The extent to which mass tourism and sustainable tourism are polar opposites or reconcilable through management is a further dimension to the discussion (Weaver, 2000). The potency of ICT adoption also features in this debate (Gretzel et al., 2000).

Throughout, the destination proceeding as a unified entity is the subtext. In reflecting on the power of the web to facilitate information representation, collaboration, communication, interactivity and transactions, Gretzel et al. (2000:148) emphasise that, 'the real opportunity is to rethink the business models that organisations employ, both in terms of delivering value to the customer and in building relationships with customer, suppliers and other business partners'.

The consumer is not an innocent participant in all of this. As Socher engagingly puts it, the clever tourist²² may even try to find another hotel than the one with the marketing expense because this other hotel without marketing costs will be cheaper (Socher, 2000:40). DYM although it is based on the self interest of enterprises, has a destination approach. Hence, it too requires a measure of community orientation by the stakeholders.

The remainder of this section argues that empirically, theoretically and economically, SMEs and stakeholders are on symbiotic trajectories which aid the destination perspective. The three sets of policies, the overall forecasting framework, the changed aspect of the destination with its distinctive pricing structure, the DYMS and the additional level of information feeding into existing networks of local enterprises all serve to provide an orientation which frames actions and initiatives in terms of critical mass and in the context of destination experiences rather than the single SME.

²² Equally one should not underestimate the clever locals. The village of Steuben is the poor lower priced cousin of a small constellation of alpine settlements of Lech, Oberlech and Zurs. As one of the local 'top dogs' remarked, one might stay in Steuben but it was difficult to get to Lech and the other villages as the road was rarely cleared on that side of the destination (Manhart, 2000).

There are empirically based examples of where enterprises collaborate to support destination wide initiatives. In extolling the benefits of computers Domke-Damonte and Levsen (2002) note that previously in a South Carolina destination SMEs had pooled resources to gather mutually beneficial data on the market. A number of campaigns have been launched in Irish Tourism which involved financial contributions from industry to support promotion campaigns (Bord Fáilte, 2000; IHF, 2001).

In considering the question why enterprises might collaborate there is evidence to assume that not all are driven by rational economic objectives. Much of the one and two star inns, guest houses, room, breakfast places and local restaurants in Austria fit the criteria of 'Lifestyle' small businesses (Wieirmair, 1992 in Weirmair et al., 1998:5). Lifestyle businesses tend to be set up to provide owner-managers with an acceptable level of income at comfort levels of activity. 'Satisficing' behaviour typically produces new routine and tactical management (Wieirmair, 1998). In a case study in Norway on the dynamics of so called 'co-opetition' in a destination, the author notes that while independence is important for owners nevertheless they are somewhat paradoxically bound up in a social and economic network (Grangsjø, 2003). Grangsjø notes that the behaviour and actions of the entrepreneur take place in a process of interactions with other participants 'and a certain local consensus of norms is established' (Grangsjø, 2003:428). These norms translate into accepted approaches regarding the management of the destination.²³

In a different context, that of public policy making involving many diverse public and private groups and individuals, a related pattern was the subject of work by Lindblom (1965). Individuals and groups who are each pursuing their own interest and who do not have a dominating common purpose interact and find accommodations (metaphorically). Lindblom described this process as 'partisan mutual adjustment'. Lindblom, an economist, advanced this model as a counter to a rational – comprehensive prescription of behaviour which in his view did not always occur in practice. Partisan mutual adjustment he felt was more in accord with the democratic pluralist tradition common to

²³ The Clifden Jazz Festival in Clifden, Ireland, despite being a superficial financial bonanza for local publicans was voluntarily jettisoned as it was a consensus that the accompanying antisocial behaviour was not desirable (Author's note).

most western societies (Lindblom, 1965). This theoretical view resonates with the independent enterprises arriving at established norms in Grangsjö's case study.

From an economic perspective there are sound quantifiable arguments which argue for the presence of mutually supportive orientations. The relationship between that value of an enterprise which is property based, such as a hotel, derives from its income stream and intrinsic real estate worth, endowed by attributes such as location and quality of the structure. Although it is conceivable that an SME may enjoy unilaterally healthy levels of business it is not in its interest to allow the general destination to degrade through inadequate revenues. One can observe the vibrant condition of Irish towns of today in contrast to the neglected and often shabby appearance of a decade ago. General prosperity has raised all real estate values.

Finally, Adam Smith's explanation of the sometimes unwitting but effective link between the self interest of the enterprise and the good of society is discussed in Section 4.5.

It is against this backdrop that DYM is developed in this research as another destination management tool which facilitates the mechanisms of the marketplace. Promulgation of this concept is best served by DMOs establishing themselves as Baker puts it of DMSs as a 'form of a regional or national champion of the SME' (Baker, 1996:10).

4.12 Conclusions

DYM relates the concept of a visitor experience to the need for revenue maximisation by each individual SME and the sustainability of the destination. This is achieved by: Destination Competitor Analysis and Destination Pricing and Rate Fence Policies. These study the comparisons which may be made by the purchaser. This ensures that the pricing of the destination will stand scrutiny and make a competitive offer which positions the products at the appropriate price points and relate to comparable destinations.

The Destination Competition Analysis in combination with the DYMS facilitates a more rapid response to competitor initiatives and crises. It also facilitates proactive approaches to market share by enabling the destination to propose various scenarios relating to new products, pricing and existing products. These may be based on aggregating the current inventory, historical performance of each SME and the sustainable capacity of the destination.

The DYMS through its links with the other stakeholders such as park rangers, local services, environmental control and other target users can ensure that tourist flows may be combined with day trippers to ensure that overall visitors are kept at sustainable levels. The forecasting capability of the destination is enhanced by the DYMS. The system is aware of and maximises the use of historical data from each SME and the level of current bookings. By aggregating this as well as providing individual SME forecasts, predictions are more informed. DYM can more readily and rapidly identify when levels of business are running ahead of or behind expectations. In each case appropriate responses such as closing out or opening lower rates and promotional campaigns may be made in timely fashion.

The DYMS can more readily respond to requests from conference planners and tour operators because it has an overview of the destination inventory and can make proposals to each SME regarding particular enquiries. This approach also facilitates an overarching revenue maximisation response by indicating how an offer to a group impacts most favourably on destination profitability (the SMEs who have the lowest opportunity cost for a particular booking).

The DYMS captures the inter-related nature of reservations acceptance from a market segment with a range of ability to pay and enables the SMEs to leverage this knowledge. A low opportunity cost for one booking also serves to constrain capacity and the business displaced then flows to other providers. The DYMS facilitates a measured approach to tackling broader questions which arise in tourism management namely, how to increase the number of high yield visitors. This is linked to opening capacity to accommodate lower spending visitors at times which do not displace high yield business and with rate fences which prevent dilution and 'spill'.

The DYMS provides economies of scale through a shared ICT infrastructure and affords the SME the opportunity to automate many or all reservations acceptance decisions if desired. The facility to delegate tasks to the DYMS frees up management resources which may be deployed to tackle other issues.

The DYMS is itself a knowledge based competitive advantage and reinforces the leadership collaborative and coordinating role of the DMO which are the hallmarks of successful destinations.

The DYMS has the capability to interlink with other destinations thereby facilitating an EU network of interoperable tourism systems. The DMO can more credibly negotiate with telecommunications providers and online travel intermediaries. In this regard DYM advances the Information Society in Tourism. The theory of DYM facilitates the research and development efforts of vendors and computer companies to design products and infrastructure for tourism businesses.

DYM provides a framework and a supporting critical mass which enables SMEs to apply fences to their pricing structure. This precludes individual SMEs being isolated in the market in their pricing practices. Through a more structured pricing approach this imposes a greater degree of discipline on the market which may reduce the level of very late booking.

The mindset of cooperation which progresses destination management approaches such as DYM has a firm empirical, theoretical and economic foundation. This is based on case studies, a model from government policy making which describes how diverse groups and individuals interact and adjust their independent stances and positions and the economic drivers which underpin the value of property based enterprises.

DYM takes the concepts of traditional YM and provides a framework which assists in applying them to a destination. This can materially improve the returns earned in the tourism industry in a way which is measured by increased yield. This contributes to addressing the competitive deficit between destinations comprised largely of SMEs and wholly owned resorts and other large scale tourism providers.

CHAPTER FIVE

VALIDATING THE THEORY

5.0 Introduction

The purpose of this chapter is to validate the theoretical conjecture as described in Chapter Four. This validation process was based on a series of in-depth interviews held with senior knowledgeable informants in the tourist industry. In fact, several of the individuals concerned could be considered to be thought leaders in their chosen field. These thought leaders were not randomly chosen. They are senior executives from government, quasi-government and a proprietor of a micro-business from the private sector. It is believed that their views and opinions represent an important element in current thinking in the Tourist Industry, especially in Ireland. The findings of the in-depth interviews permit the theory to be refined which is an integral step in the process of confirmation of theory (Remenyi et al., 1998:83).

- This chapter presents direct quotations from these individuals, tables summarising their views as well as discussion of their thinking. Not all the direct quotations obtained have been used. Only these which directly relate to the DYM issue are quoted here.
- Comments and observations are categorised under the three constructs of the theory,
- Demand for Sustainable Destination Experiences, Destination Core Resources and Attractions, Destination Management Organisation and its Destination Yield Management System.
- There are sections which address comments germane to price discrimination, forecasting, demand management, Destination Competitor Analysis and Destination Pricing Policy which are the policies needed to operationalise the theory.
- There is a concluding discussion which focuses on three themes that reoccurred throughout the interviews. These are as follows:
 - A: Building on the existing DMS and local Ireland West self-catering reservations system
 - B: The diffused role of Destination Management Organisation and local creators of experience
 - C: Trade Association involvement in DYM and the Town and Country Homes prepaid voucher scheme.

5.1 The Format of the In-Depth Interviews

The high profile positions of the majority of the interviewees required an approach which secured their dynamic engagement with the ideas in the theory and which enabled them to articulate their view of existing practice and how the theory may provide a vision of future practices. This was achieved as follows:

A document (See Appendix 2) containing the following was prepared:

- The Statement of Theory with explanatory footnotes,
- The Testable Propositions,
- A table summarising the constructs, variables and attributes of the theory,
- A schema representing the elements of the theory.

The informants were contacted by telephone by me asking them to consider a research document which I was forwarding to them. I requested their views, comments and observations on the ideas contained in the document which focused on Yield Management for Destinations.

Where I could not speak directly to the individuals I forwarded the documents and cover letter. In all cases my calls were returned, confirming their wish to contribute.

I made arrangements to stay in the premises of the B and B proprietor and apprised her of my research. At a later stage I forwarded the research document.

The in-depth interviews were held between August 17th and September 10th, 2004. They were conducted in locations to suit the participants: hotels, my office, a telephone conference which was followed by a meeting in that interviewee's office, and the proprietor's premises. The average duration was 90 minutes.

I requested permission to take notes. In one case, I halted the discussion to bring in my secretary as the individual spoke rapidly with numerous comments and ideas. The transcripts were made up of the notes. Key quotations were extracted.

The interviewees were sent a copy of the transcripts.

5.2 Opening Comments

Table 5.1 summarises the level of engagement, the extent to which the theory was embraced and the extent to which challenges were posed. The headings for Table 5.1 below have the following meanings.

<i>Engaged with the ideas</i>	<i>Embraced the ideas</i>	<i>Posed Challenges</i>
The extent to which the interviewees showed that they had read and thought about the ideas in the document circulated to them.	The extent to which they were either overtly broadly supportive or the extent to which the content of their discussion contained ideas which built on an implicit acceptance of the ideas.	There is an overlap here with engagement and embracing the ideas. This refers to the participants who posed issues which they regarded as challenges going forward as the ideas are implemented.

The following abbreviations are used in Table 5.1 and generally to label the extracts from the interviews.

Paul O'Toole, Chief Executive, Tourism Ireland Ltd:	PO'T
John Concannon, Chief Executive, Ireland West Regional Tourism Authority:	JC
Catherine Lowry, Proprietor, Ave Maria Bed and Breakfast, Derrygimlagh, Clifden, Co. Galway:	CL
Stuart Stephens, Chief Executive, Gulliver Ireland Information and Reservations Systems:	SS
Brian Flynn, Chief Executive (Outgoing) and Secretary to Board, Ireland West, Regional Tourist Authority:	BF

Table 5.1 Summary of the Range of Engagement with and Acceptance of DYM.

Interviewees	Connected with Ideas					Embraced DYM					Posed Challenges				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
CL				✓					✓				✓		
BF					✓					✓			✓		
JC					✓					✓				✓	
SS					✓					✓					✓
PO'T					✓				✓						✓

The Scale of 1 - 5 indicates the level of engagement, extent to which DYM overall is embraced and the extent to which challenges are posed

1: Very low, 2: Low, 3: Medium, 4: High, 5: Very High

The comments were positive and the interviewees engaged with and were stimulated by the central ideas. This resulted in individual detailed insights, comments, caveats and examples of elements of the Statement of Theory or the model as some interviewees referred to it in their responses, operating in current practice. As they embraced the theory they suggested developments going forward of the ideas.

‘It’s in many people’s interests to have this – institutions would like it too. I approve of the thrust of the proposed theory...the ideas here are pioneering the way to do it – the system for self catering bookings which is hosted by Ireland West Regional Tourist Authority is an example...your paper prompted me to ask Ireland West to quantify the revenue value of under utilised capacity.’ JC

‘Very interesting...in principle (the proposed theory) – you could say this is something whose time has come – it’s badly needed – there are fundamental issues which need to be addressed...we would have spoken to the Tourist Board over a number of years about providing a YM service, but there was no productive outcome...I found myself reading it and thinking these are things I have been thinking about for years, we would like to develop this further with you.’ SS

'Theoretically the model could work...the Statement of Theory does not develop a number of issues relating to certain conditions which must exist – a number of practical realities.' PO'T

'The system for self catering accommodation bookings which is hosted by Ireland West (Regional Tourist Authority) is an example – the inventory is held and managed by the RTA for a number of providers.' BF

Each construct now provides a heading for the comments made.

5.3 Demand for Destination Experiences

For some, this construct was seen from the perspective of brand marketing and the issue of securing the confidence of providers was seen as a function of the extent to which a regional authority is in a position to influence demand. Table 5.2 below summarises the relative positions of each interviewee and this is followed by key quotations relevant to this construct.

Table 5.2 Summary of the Range of Acceptance of and Further Development of the Construct: Destination Experiences

Topic	Interviewees	Agreed with Construct cited examples in practice					Developed Ideas				
		1	2	3	4	5	1	2	3	4	5
Destination Experiences	CL				✓						✓
	BF			✓					✓		
	JC					✓					✓
	SS				✓						
	PO'T				✓					✓	

*'There is this issue of creating a brand identification for Ireland West¹ – you need to be spending – significant funds – **if you are spending and managing demand – then you can manage the supply** – in relation to experiences– the brand encompasses this – the experience creation.'* JC

'In Ireland all of the marketing should be done centrally – the international market is where it's at – less local small scale messages – problems with multiple messages.' SS

Tourism policy and state funded marketing has focused on promoting Ireland. The rationale is that in a competitive global market, it is difficult enough to promote visibility of the country, and developing regional brands would simply dilute the international impact.

Within existing demand there are different views as to which segment is most important and the next comment focuses on the need to be aware of the effects of targeting a particular segment.

*'...tourism will increase in Ireland West because of developments in infrastructure – **the question is – about the yield – stag parties? hen parties? booze tourism?**'* JC

The following comment is indicative of a theme which was reflected throughout all the interviews that experiences were primarily a function of industry and community creativity rather than initiated by the DMO.

*'...experiences do not have to be a big deal – **it can be genuine interaction, warmth of welcome, something different and surprising about the room** – there's a B and B in Tipperary doing story telling weekends – and sloe gin making weekends.'* PO'T

The following comments on the potent influence of the trade associations also formed a pattern in the responses.

¹ The role of Ireland West Tourism is to organise the tourism industry in the region in order to facilitate and co-ordinate marketing and development activity. (Fáilte Ireland, Ireland's Tourism Information and Reservations Network, 2004).

'So all 4000 B and Bs cannot go this way – *the Town and Country Homes*² could go this route – a branded approach offering a certain type of experience across the country.' PO'T

'The way maybe to get the smaller businesses to see a way to *become involved in the destination view is for a subgroup of the Town and Country Homes, i.e., a Galway group to form and get centralised support from Town and Country Homes in Letterkenny to look at how more people could be drawn into the region.*' BF

5.4 Destination Core Resources and Attractions

The extent and the boundaries of the management of the many components which make up the tourist experience drew varying comment. The extent to which each interviewee agreed with the construct as articulated, cited examples and developed the ideas is summarised in Table 5.3.

Table 5.3 Summary of the Range of Acceptance of and Further Development of the Construct: Destination Core Resources and Attractors

Topic	Interviewees	Agreed with Construct cited examples in practice					Developed Ideas				
		1	2	3	4	5	1	2	3	4	5
Destination Core Resources and Attractors	CL				✓						
	BF				✓						
	JC					✓					✓
	SS				✓			✓			
	PO'T				✓						

The total capacity of the destination determines the maximum revenue. Likewise setting prices to achieve a targeted yield is premised about a certain level of capacity of the Destination Core Resources and Attractors. In a given destination this may not necessarily be clearly defined for every category of service as this comment shows:

² Town and Country Homes Association - There are over 1,800 Bed and Breakfasts in the Town and Country Homes Association which has been in existence as a professional trade representative body for 30 years. This category of accommodation covers a variety of houses in urban and rural areas. Their main attraction is their homely atmosphere and the opportunity they provide to meet people in their own homes. (Town and Country Homes Association and Fáilte Ireland Websites, 2004).

'There is a vast number of unapproved B and Bs, possibly 6000 (in Ireland – approximately 24,000 rooms).' BF

At national level there is perhaps a natural desire not to be involved or held responsible for every detail of what might affect the tourist experience.

' – the state acts best as a facilitator – impartial – I see us as advocates for the consumer's needs – we would be saying to the trade, You need to have: Wonderful properties, Easy access by air/sea, Good signposting, All the other things, security, litter/waste collection³, clean water – these are things which the citizen wants anyway.' PO'T

At regional level there seems to be a different view about the level of hands-on activity:

'There is a type of semi forum which needs to be revived – it includes the police and other agencies – it's a chance for everyone to have a collective view of tourism. There is another point here – local authorities in France and Austria collect local regional taxes which can be used to fund initiatives and which give these more influence.' JC

The management of resources and components outside the control of SMEs elicited a different perspective on this. The comment which follows draws attention to the presence of other agencies and other agendas such as industrial development which interact with tourism. It also makes a link between demand management and infrastructure.

'...there is a plan being drawn up with academics and industrialists working on it to develop a type of economic zone which will tie in Cork, Limerick and Galway. It is resulting in better roads.' BF

³ This comment reflects the evolving role of the tourist board. The Tidy Towns competition was inaugurated in 1958 by Bord Fáilte in an effort to improve the appearance of towns and villages throughout the country for the main tourist season. It developed into one of the most successful voluntary movements in the history of the State. In 1995, the Department of the Environment and Local Government took over the running of the competition from Bord Fáilte. Tidy Towns is no longer primarily concerned with just the physical appearance of towns and villages, the criteria for adjudication have been broadened to take account of the wide range of factors which go to make up the urban and village environment. Local communities are asked not to over-emphasise the tourism aspect; while tourism is an obvious knock-on benefit of doing well in Tidy Towns, the main beneficiary is the local community itself.

Not everybody sees the tourist authority adopting a hands-on approach to destination core resources and attractors and as this interviewee points out there is a question of resources and authority.

‘...Dubai is an example...they made a strategic decision to reduce dependence on oil – they built a tourism industry from nothing – just sand and water – they planned everything but they had the means of doing it.’ PO’T

The provider reflects on the condition of local attractions which use a publicly owned facility:

*‘...there is a local music and song evening session during the summer in the town hall. **The hall is a little uncared for, maybe it needs refurbishment... the Clifden horseshow, the fairgrounds haven’t changed for 20 years.**’ CL*

Expanding the utilisation of a powerful destination attractor is not necessarily a matter of direct control or even formalised linkages or forums, rather it can involve happenstance and networking as this insight shows:

*‘...**the racing festival**⁴ has been expanded, it used to be five days – now it’s seven – it was helped by having a local man on the national board – it’s possible from the inside to know what is happening in other race tracks – are they going to close down on certain days – Galway then takes this day up – **they are constrained in what they do by what is happening in other courses (racetracks).**’ BF*

DMO is discussed in the literature as an organisation. The interviews indicate that in the example of Ireland organisations which might equate to a DMO do not necessarily have the mandate, or the resources or the belief that they should have the burden of this entire role – rather it seems this role may be more diffused.

⁴ In a country famous for its bloodstock, the Galway Racing Festival (July) is a fixture in the Irish Social Calendar. It’s estimated that it is worth in excess of €20m to the city’s hotels, restaurants, shops and other facilities. Every additional day of racing adds to this.

The interviews make it clear that not everyone shares the view of a holistic approach to destination management driven by an omniscient national or local state agency. Implicit in some of the comments is the notion that it's best for the state to remain impartial and at a distance from the detail of DM. DYM theory is predicated on the more holistic approach advocated in the literature.

5.5 Destination Management Organisation and its Destination Yield Management System

The comments and discussion bearing on this construct point out the need for a system and accept that YM has to be practiced and that there is a benefit to be gained. Within this agreement the precise way forward and who should do what can vary depending on the lens through which the statement of theory is being viewed, the proprietor, the regional chief executive, the national chief executive and the chief executive of the privately controlled DMS providing services to the state.

Table 5.4 Summary of the Range of Acceptance of and Further Development of the Construct: Destination Management Organisation and its Yield Management System

Topic	Interviewees	Agreed with Construct cited examples in practice					Developed Ideas				
		1	2	3	4	5	1	2	3	4	5
Destination Yield Management System (DYMS)	CL				✓					✓	
	BF					✓				✓	
	JC		✓								✓
	SS				✓						✓
	PO'T				✓				✓		

For this topic the table above summarises the broad high level of agreement with the thrust of the ideas. One of the interviewees, whilst keen on the basic concept of DYM, felt that the existing DMS was based on a design which was inherently constraining of full scale DYM and advocated a different type of design with a view to progressing DYM, hence a high score in the second column. One respondent, BF, was enthusiastic about the existing system and its capabilities.

The statement that ‘the DMO has a primary role in the creation of destination experiences...’ was mildly seized upon by two of the interviewees:

‘I would dispute that it’s the DMO who creates the experiences – it’s the industry – the providers – you leave it to them.’ SS

‘There is another possible contentious issue – the DMO’s role as a creator of experiences – ...it’s difficult to see how it works when you are marketing a countryside destination or even an urban area... I can see it maybe for some time-defined event, such as a festival.’

PO’T

From the perspective of the provider, it was ‘the people’ – the community who are the source of innovation and create the experiences. This was very much an immediate and instinctive reaction and was accompanied by a view of the relative abilities of one community over another.

‘...I always think the people of Kerry are far better at getting tourists than we are...if they had the Alcock and Brown⁵ landing site they would really make something of it. Mayo is the same, they have a great drive...I always say that the people of Mayo are prepared for the next Famine.⁶ We are more complacent in Galway, maybe we have so much.’ CL

5.5.1 The DYMS

The responses in this area identified features of the existing Gulliver DMS which they felt in part does or could provide the type of support envisaged by a DYMS. A number of the responses cited another smaller scale system local to Ireland West self catering providers which manages the reservations and inventory of a number of individual enterprises in this sector.

⁵ Derrygimlagh bog is situated close by this proprietor’s B and B – it was mistaken for firm ground by John Alcock and Arthur Brown as they just completed the first transatlantic flight.

⁶ The Famine of 1846–1850 lives on in Irish culture as this colloquialism shows.

'...self catering does allow something like that...because of a reservations system set up many years ago by my predecessor – because of the way it is set up – it could be developed further – Ireland West has knowledge of their level of bookings – they also get direct bookings, so you would need to know those also.' BF

'...it's possible that the trade will put their inventory into an outsource system – but they will have to see a benefit ...the system for self catering accommodation bookings which is hosted by the Ireland West Regional Tourist Authority (RTA) is an example – the inventory is held and managed by the RTA for a number of providers' JC

The B and B proprietor is happy to give inventory for sale at a specified price to the IW Tourist Authority.

'...this year I gave an allocation of rooms to the system (the Gulliver DMS) – they have authority to sell those rooms – they take a percentage and a credit card number – and the visitors pay directly (to the B and B), no shows have not been a problem.' CL

'...Gulliver you could call it the DMS for the country it helps to see it in this way...by helping enterprises attempting to do this already – to manage inventory.' PO'T

As the discussion continued with this interviewee it emerged somewhat intriguingly that the large tour operators sought a judicial review of the operation of the system and Gulliver's relationship with Bord Fáilte (the national tourist authority was so named at the time in 1998).

The interviewee had handled the matter, which did not go to court. Implicit in his comment which follows is an assessment of the leverage wielded by Tour Operators. It highlights and confirms one of the concerns of the EU and discussed in Chapter One, SMEs in destinations need to access and have a measure of control over the distribution process through an interoperable DMS. As pointed out in Chapter One, YM is an enabling technology for SMEs to participate fully in such a network of interoperable systems.

‘...there was a private partner and Bord Fáilte controlling Gulliver – the national tourism information system...they took inventory and offered it randomly...something the way your model describes...it was a beginning...you could seek to control demand. Yes it was associated with technical difficulties – but it was also dogged by private intermediaries – their view was – you are the state – keep out of this area.’⁷

‘.....had the case gone to court Bord Fáilte probably would have won – but Irish Tourism could have lost. Ireland was a test case for the tour operators – they could have blacked Ireland...a solution was worked out.’ PO’T

It was confirmed that the current system has the capability to carry out many of the functions to operationalise DYM.

‘You need data for something like this – information on demand and inventory – our service is in a position to provide information...in the past we have/do advise people on their pricing if we feel they are out of line with their structure – I think there is a lot of benefit to be gained by us feeding people current market information – and we are in a position to do this through the extranet 7– which providers already access three to four times per day – we could give feedback or advice or guidelines – this would be enormously beneficial.’ SS

‘your paper prompted me to ask my organisation (Ireland West) to quantify how much underutilised capacity exists and to translate that into revenue...’ JC

At the Regional Tourism level there was an acknowledgement that the existing systems could do what is envisaged in DYM. The interviewee, in the comments which follow, developed the discussion to consider the extent to which the existing system could be effective, speculating that its original design might compromise the level of success which

⁷ The following note appears on the Fáilte Ireland website in relation to Gulliver: ‘A point of note in regard to Gulliver’s business is that the information side and reservations side are separate businesses. Gulliver Infores owns the database and software and earns commission from making bookings (10% commission plus booking fee). As a separate business Gulliver handles the Tourist Information queries to Fáilte Ireland. It should be borne in mind that for these calls Gulliver acts as agents for Fáilte Ireland so the calls are answered differently from reservation calls that come directly to Gulliver’. (Fáilte Ireland Website, www.failteireland.ie 2004).

could be achieved by DYM. These comments are somewhat contradictory of the view expressed in the preceding comment but this difference bears upon how best to progress DYM while implicitly accepting it as a viable theory.

*'...existing systems are not designed with this idea – **the systems may be able to do it – but it's not happening** – they have to be friendly to the trade – they have to make it happen...'*
*'...for yield management you **need a system which is proactive which pushes the offers – the special deals** '...the systems needed now therefore must be consumer focused – **they must involve active updates by the trade** – hotel rates are loaded up now, but the communication must be ongoing with updates – **a proactive approach.**' JC*

*'...the role of an organisation like Fáilte Ireland would purely be **data integrity** ensuring that appropriate information on attractions and activities is uploaded. This then enables tourism actions...would allow the setting up of special deals and packages including details like transport. Fáilte Ireland would probably be the ones to **fund** what could be called a power database.'* JC

Looking to the future, when such a system might be entirely privately controlled, the interviewees specified what they felt that future role of the tourist authorities might be.

*'...with such a system it could be used for so many things – **identifying best practice** – it would be evident who is **optimising their occupancy and rates** – the system could identify those then it would be possible to approach these providers – **share best practice** – the RTA could do this as it is a not for profit organisation – it's there to provide a service to tourism.'*
JC

Having accepted the principle of a DYMS and its desirability a number of responses focused on other positive possibilities afforded by DYM.

*'Confidentiality is a factor but the most significant will always be – is there a benefit – the RTA would need the funds to provide the brand and the system...**when everyone is on one***

system then it is possible to send selected promotional emails – you build data on particular customers across businesses and promote directly to them – it's not a problem with the providers. So much information could be captured from the site – if the RTA is seen to be helping their businesses then the providers will not have any problems.' JC

Also possible challenges which might have to be faced in securing universal participation in a DYMS were raised with the belief expressed that once the benefits were made explicit this would not present an insurmountable problem.

'...There may be blockages – behavioural – at the moment businesses are looking to link with as many intermediaries as possible, such as Book Assist.Com. One issue may be will they tell the RTA when they have received bookings through another channel... There would be no need for intermediaries, if everyone was on the system an eCommerce portal.' JC

Where it was assumed that a regional authority or a national tourist authority would be actively involved in the DYMS it was posited that it was simply not feasible to act impartially.

'...the model assumes that a DMO can exist and act impartially and would be able to act impartially as it helps many enterprises to optimally utilise their inventory.

'...the state – when it's not acting in a purely commercial way – it must be impartial – if a particular form of SME is favoured – we do not do it well...' PO'T

At one remove the interviewees who are employed by the government describe situations where SMEs collaborate and have allowed their inventory to be managed, yet later it's a 'bridge too far' or 'they just won't do it.' I draw the conclusion here that technologically not only is DYM possible but that the existing information system is to some extent acting in this way. The state is paying the private contractor for the tourism information service and responses may be conditioned by the history of the threatened court case. However, individuals who hold positions at national level in tourism may be instinctively wary of

advocating advances which may impose greater responsibilities on the governments. This may explain the positive comments and analogies made by those with national responsibility and at other times their assertions of practical difficulties. DYM draws out a welcome as well as caveats to anticipate or head off confrontation with powerful interests/drivers. DYM may be as much a political theory as one rooted in social sciences/tourism.

5.6 Price Discrimination and Demand Management

The interviewees identified with the theory of price discrimination linking it to examples in the airline business. Demand management is associated with tackling the problem of seasonality in the hospitality sector of tourism as hotels offer variable rates by season to increase capacity utilisation. Theorising about raising prices to take advantage of peak traffic is one thing but dealing directly with the individuals who are at the receiving end of such a policy may explain a lack of enthusiasm for such an approach:

'...I don't think that somehow it's right to increase prices when it's busy but maybe that's me...' CL

In relation to advance purchase and incentives for earlier bookings, the B and B proprietor did not immediately associate it with the hospitality sector and was interested to hear of its use by Marriot Hotels:

'...that's a good idea and it could work...but you know it can work in reverse too, because sometimes you can buy holidays at the last minute for less than booking in advance.' CL

In relation to expanding the length of the season by using such pricing structures, their comments made were.

'...I suppose I'm not in this to the extent that others are...its not my sole source of livelihood...but for others in the area who are doing this for a full time living they could generate business for a longer period and do in some cases...' CL

'...yes there is scope to develop this...but there needs to be some sort of equilibrium between supply and demand – I don't think it works when supply greatly exceeds demand.' PO'T

A good example of operationalising price discrimination was provided.

'...the hotels here if they are looking at a lean February – they will lower their rates but only for the domestic market – they believe if they lower their rates for the international market then its impossible to get them back up again.' PO'T

He then confirmed an example of strategic bundling of services⁸:

'...YM is utilising capacity in a clever way – rather than lowering your prices...it's adding value...you offer three nights if you buy two.' PO'T

The Town and Country Homes once again are quoted as exemplars:

'...also the Town and Country Homes are very well organised in relation to contracts with Tour Operators – they agree cancellation terms, they have all the necessary protocols in place – in fact they may be better at this than hotels.' BF

This interviewee was of the belief that price discrimination was not widely used and that there was scope for its application.

'Price discrimination is not really used – I put this to a B and B operator in Cork, someone with 8/10 rooms – use price as a marketing tool – there is plenty of scope. Two nights for one but how do you communicate this – if there was a website this is the type of thing which could be done. Then destinations could compete against each other, Galway versus Kilkenny. Not much evidence of price differentiation at the moment.' JC

⁸ 'Bundling' strategies sell packages of peak and off peak services by giving a discount on the services provided during peak times, an example is the frequent flyer miles provided by airlines (Klassen et al., 2001). Destinations could use such strategies, but a tracking system is essential to monitor each guest.

And an example of price discrimination applied to a destination rather than to one specified provider is provided by the B and B proprietor:

‘the voucher system operates whereby accommodation is prepaid – but they are not allocated to a premises or a time – it is the visitor who decides where and when to stay and the business must provide the accommodation if it is available.’

She elaborated further explaining that this did not always work perfectly:

‘not everyone accepts them when its busy, they get sent out from the town, on occasions I have spent a lot of time sourcing accommodation for people in difficulty.’ CL

The imperfections are confirmed by another interviewee:

‘It could be that in peak times there could be a problem – it operates imperfectly – when there are very busy periods – the SMEs prefer to accept cash.’ PO’T

The preceding comments and example are analogous to a situation which can arise within large hotel groups which feature ‘last room availability’ as a benefit accompanying certain rates. A hotel, although it may be certain of selling its rooms at rack rate, is obliged to honour a rate which features ‘last room availability’. Commonly, such rates are negotiated by large globalised corporations which in turn generate many thousands of bednights throughout its hotel chain. A hotel within the chain may try to shirk obligations by stating it has no room available. The consumer may complain to the central office which can validate the hotel’s claim by checking its database. Likewise, if all guesthouses were using a common platform such problems could be quickly resolved thereby ridding the market of the imperfections identified by one of the interviewees.

It is accepted that providers endeavour to manage demand in a number of ways:

'...hotels have vastly improved their marketing...it's particularly showing in weekend business – good operators like the Abbey Glen Hotel [located in Clifden in the West of Ireland] – they have their low price periods.' JC

The following is interesting for what seems to be almost a counter-intuitive analysis of the relative expertise of hotels and micro enterprises.

'Hotels have vastly improved their marketing – essentially because of the success of the B and B sector – they got scared – and led by the IHF⁹ (Irish Hotels Federation) they improved.' BF

Finally this comment confirms that in the eyes of the micro business the hotel sector has indeed made strides in the area of demand management and price discrimination in recent years. There is also an allusion to over supply or insufficient demand and the belief that hotels will meet the prices of the B and B sector in order to secure business.

'the hotels offer really good deals now...they send them in the post...if more people come the hotels will take them...they will be in there with their offers...hotels must sell rooms, if they are empty...' CL

Implicit in the latter statement is a reference to the difference between part time micro businesses which sometimes have the option of relative ease of exit from the marketplace (i.e., a B and B may revert to being a home). The stakes are higher for a purpose built hotel and a return must be made on the capital invested. The comments above taken in their entirety reinforce an advantage of DYM which facilitates the possibility of a critical mass of SMEs responding as a coherent force rather than a single entity unilaterally endeavouring to meet a challenge.

⁹ Founded in 1937, the Irish Hotels Federation (IHF) is the national organisation of the hotel and guesthouse industry in Ireland. The primary functions of the Federation are to promote and defend the interests of its members. (Irish Hotels Federation website, www.ihf.ie, 2004).

5.7 Forecasting

A new and innovative source of real time information on spending was proffered by one interviewee:

*'You need data for something like this – **information on demand and inventory** – our service is in a position to provide information – in real time on spending in the economy. This is from information on currency exchange transactions – the retailer interrogates your rates and presents the customer with the option of paying in dollars or euros (cash) and the effect is to divide the commission between them (which might otherwise go to the card company.) Such information can be analysed/categorised by sector.'* SS

'...data tends to be very sketchy – this is in contrast to other sectors where it would be unheard of to come to the table without research and data.' JC

The facility whereby the DMO could readily extract real time data on the status of bookings was regarded as necessary and welcome. It was contrasted with the slow and uncertain availability of data on bookings at the moment.

*'At the moment, **Ireland West has no direct link with any of the hotels, it has to approach them directly** to find out what is happening in some cases the hotels know – but they don't always know – its not at the push of a button. We phone the businesses – 70 to 80 of them and ask – not all would actually know or be able to tell you – it's a little anecdotal but it gives an idea – **its not done at the moment that Ireland West has all the access to inventory (of rooms) that we can see how things are looking** – could be considered?'* BF

The system for self catering hosted by Ireland West and already referred to in terms of an embryonic DYMS is cited again to support DYM by this interviewee:

*'the information that you describe could be taken from the **self catering system** because of the way it is set up ...you would need information on direct bookings...it could be developed further.'* BF

Finally the following comment is qualified as this interviewee has an all Ireland perspective and has had the experience of tour operators taking issue with how the State uses information in the marketplace:

‘Unquestionably there is a benefit in having all inventory on a system and having access to the information...’ PO’T

This interviewee then posed a question which he felt might cause difficulty. How does the DMO through its DYMS remain impartial in the allocation of business? If the system advises an enterprise to accept bookings at a certain rate, one enterprise might implement the recommendations and a competing local enterprise may then be able to sell inventory at a higher rate at a later stage due to shortage of capacity in the area.

The counter to this is that it may occur anyway without a DYMS. The DYMS, through its modeling subsystem, simply automates the pricing and inventory decisions which are decided by each enterprise informed by the Destination Competitor Analysis Policy and the Destination Pricing Policy.

5.8 Destination Competitive Analysis and Destination Pricing Policy

One of the policies envisaged in the operationalisation of DYM is an analysis of comparable destinations internationally as an input into preparing pricing guidelines. The following comments relate to the extent to which SMEs are aware of their competition in other destinations.

‘...no I’m not aware but it may be that information like that has been sent out and provided by Ireland West.’ CL

Identifying the competition may not be so easy:

‘...have a particular memory of a very effective slide show shown by Ryanair to an audience in Killarney...it started with a picture of the Lakes of Killarney and the statement – “you can fly from Frankfurt to Kerry for 20 euros” – people were happy with that, then the next slide

clicked in to the fjords of Norway and a similar statement was made...then Vienna, then Venice...people do not know who their competition is.’ SS

For another interviewee the terminology was different and a snappier title than that of Destination Competitor Analysis was proposed:

‘...there is a need to profile the international competition – so that everybody knows what the competitor has to offer. I call it the “cappuccino index”, you take a basket of average prices and benchmark the destination – a cappuccino, a taxi, a room...’ JC

From the national viewpoint the information regarding the need to be competitive with comparable international destinations is certainly disseminated. A note of concern and frustration surfaces in a comment confirming this:

“we do say to people... you may believe you have to charge the prices you are charging but this is the competition.... and the competition for a comparable experience could be Scandinavia, Scotland, Brittany even Croatia now” PO’T

DYM envisages a pricing policy document as part of its operationalisation.

‘Maybe it’s wrong to focus on an individual component – it’s the overall price that is important. ‘...in the past we have/do advise people on their pricing if we feel they are out of line. ‘...perhaps there is a need for some type of cross subsidy – the tourism authority could determine the type of reduction necessary to stimulate demand.’ SS

This point is well made. It reinforces the need for DYM. DYMS can far more readily aggregate the various price components for a variety of holiday ‘scenarios’ for different categories of visitors. Analysis of this may lead to more imaginative packaging and adjustment of individual pricing structures to make the overall price more attractive. This would focus on all elements of the experience. Shops offer variable prices and offer special

concessions for groups. Certain categories of business, such as pubs do not have variable prices. A focus on overall price would highlight this and perhaps prompt new initiatives.

The B and B provider confirmed that the Regional Tourism Authority provided documentation which she gave to me, a marketing handbook published by Fáilte Ireland which deals with many topics including YM. An extract is provided in Appendix 3.

'I know that the RTA sends out information on marketing for small businesses, the Town and Country Homes they agree rates and you should not exceed these rates'. CL

A letter issued by Town and Country Homes to their members and given to me by the B and B proprietor deals in part with rates for the travel trade, i.e., travel agencies or tour operators. These are arrived at by vote of the *'majority of membership and ratified by the Management board.'*

There is a low and high season guideline. No guidelines are provided for retail rates – however, the trade rates would set a baseline. Included in the guideline there is provision for children's rates – under the age of twelve sharing a room with an adult or if three children share a room, children under three are usually free. This documentation was provided by Catherine Lowry, the proprietor of the B and B.

5.9 Summary of Selected Themes and Concluding Discussion

Table 5.5 which follows summarises the number of occasions when selected themes which underlay much of the interview were cited. This was calculated by returning to the original interviewee transcripts and counting the number of occasions each of the themes surfaced in the responses. Each theme is discussed in turn as a conclusion to this chapter.

Table 5.5 Summary of Number of Citations for Three Selected Themes for Concluding Discussion

Themes	Interviewees					Total
	CL	BF	JC	SS	PO'T	
A Building on existing DMS and local Ireland West self catering reservations system.	✓✓	✓✓✓	✓✓✓✓ ✓✓✓✓	✓✓✓✓	✓✓✓✓	21
B Diffused role of Destination Management Organisation, Local Creators of Experiences	✓✓✓✓✓	✓✓✓✓ ✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓ ✓✓	26
C Trade Association Involvement and Town and Country Homes Prepaid Voucher System	✓✓✓✓✓ ✓✓✓	✓✓✓✓ ✓✓✓✓	✓✓✓		✓✓✓	22

5.9.1 Building on existing DMS and Local Ireland West Self Catering Reservations System

All of the respondents incorporated the functioning of the existing DMS into their discussions. The comments confirmed that it already operationalises a number of aspects of DYM, such as holding inventory and supporting electronic transactions. There was the insight that possibly its progress in this area may have been trammelled by the shadow of a previous potential challenge to its operation. The example of the existing small scale reservation system hosted by Ireland West for self catering accommodation was cited as approaching DYM. In the view of one interviewee the existing DMS will need to be radically redesigned in order to take full advantage of DYM. This related not to a technological deficit but rather to issues of presentation and user friendliness which if incorporated would encourage participation by providers and stimulate demand on the part of the consumer.

5.9.2 Diffused Role of Destination Management Organisation, Local Creators of Experiences

The thrust of many comments taken in combination suggest that the role of the DMO is best perceived and represented as a more diffuse one than that which tends to be suggested in the literature and is reflected in the Statement of Theory. One interviewee pointed to Dubai as an extreme example of how one nation managed to build a tourism industry from a foundation

of sand and water. It was remarked that they were provided with the means and mandate to do so. Likewise, it was pointed out that regional organisations may have more authority in countries where local taxes can be applied. The RTA in Ireland West, which is the DMO must interface with the National Roads Authority, the airports' authority and organisations such as the Industrial Development Authority and County Development Agencies. All may have diverse agendas and in this case, unlike what was suggested of Dubai, the RTA does not have an overriding mandate.

Finally, it is the community – industry and/or local people who are the reservoirs of innovation, creativity and, most importantly, drive in the creation of the destination experience. Where this exists the professional infrastructure follows in support and the RTA then plays an important role.

5.9.3 Trade Association Involvement and the Town and Country Homes Prepaid Voucher System

With one notable and perhaps understandable exception, the interviewee with a direct interest in the DMS, there was a view that the involvement of the professional associations is a component of DYM. This relates to their existing manifest ability to organise their members. In the case of the Town and Country Homes Association, their expertise in negotiating agreed pricing policies with their members and negotiating with suppliers on their behalf was cited. The Irish Hotels Federation was credited with being the coordinating body which raised the level of professionalism in relation to demand management and price discrimination. This was in the context of competing with a sector which was already organised – those B and Bs which are members of the Town and Country Homes Association. There are other highly regarded trade associations in Ireland such as the Blue Book and Hidden Ireland. Each of these represents a particular style of accommodation. Given this wealth of established organisations it is reasonable to conclude that such bodies should form an integral part of DYM.

CHAPTER SIX

CONCLUSIONS, RECOMMENDATIONS AND FUTURE DIRECTION OF RESEARCH

6.0 Introduction

This chapter reports on how the theoretical conjecture has been refined as a result of the additional insights acquired from the in-depth interviews with the knowledgeable informants described in Chapter Five. In addition:

- The contribution of DYM to existing DM and YM theory is evaluated and the impact on competitiveness is assessed.
- The academic contribution of the research is described.
- Conclusions are drawn and recommendations are made.

6.1 The Refinement of the Theory

Although the in-depth interviews validated the DYM theory they also provided insights which have allowed the theory to be further refined. As a result of this I now have a clear view of how to restate some of the original concepts and how to relate them in a more rigorous way.

Table 6.1 below is extracted from Chapter Four and is made up of the constructs, variables and attributes of the theoretical conjecture as proposed in advance of the interviews.

Table 6.1 The Constructs, Variables and Attributes of Destination Yield Management

<i>Constructs*</i>	<i>Variables</i>	<i>Attributes</i>
	Measurable aspects of the concept	Characteristics of a variable
Demand for Destination Experiences	Tourist Day tripper	<i>Market Segment</i> <i>Characteristics</i> <i>i.e.</i> Booking Trends
Sustainable Destination Core Resources and Attractors	Overnights Revenues Admissions Inventory	<i>Inventory & Management</i> <i>i.e.</i> Grade of Rooms Capacity of Attractions Prices
Destination Management Organisation (DMO) (including the Destination Yield Management System DYMS).	Production of experiences Destination Yield DYM practice	<i>Evaluators of Experiences</i> <i>i.e.</i> Authenticity <i>Evaluation of Practice</i> Pooling Inventory

**Constructs help to organise, communicate about and understand things that are real. Constructs can work in this way because while not real or observable in themselves, they have a definite relationship to things that are real and observable (Babbie, 2002:122).*

Source Chapter Four

As the comments from the in-depth interviews showed, a Destination Management Organisation may need to be more flexible and dispersed over a number of locations and players rather than simply consisting of a single organisation. It is appropriate to think in terms of a function which allows for a more federal approach. Other supportive agencies may be operating within the destination and it may be useful to interface with them in order to deliver a holistic approach to Destination Management. Finally, virtually all the interviewees identified the role of the trade representative bodies, such as the Town and Country Homes and the Irish Hotels Federation, as a factor in operationalising DYM. The interviewees viewed the local community and the SMEs as the primary sources of initiative and innovation in the drive to create destination experiences. These modifications are reflected in Table 6.2 below which incorporates the changes.

Table 6.2 The Constructs, Variables and Attributes of Destination Yield Management

<i>Constructs*</i>	<i>Variables</i>	<i>Attributes</i>
	Measurable aspects of the concept	Characteristics of a variable
Demand for Destination Experiences	Tourist Day tripper	<i>Market Segment</i> <i>Characteristics</i> <i>i.e.</i> Booking Trends
Sustainable Destination Core Resources and Attractors	Overnights Revenues Admissions Inventory	<i>Inventory & Management</i> <i>i.e.</i> Grade of Rooms Capacity of Attractions Prices
Destination Management Organisation (DMO) (including the Destination Yield Management System (DYMS)).	Destination experiences Destination Yield DYM practice	Community Innovation Interfaces: Other Agencies Trade Associations <i>Evaluation of Practice</i> Pooling Inventory

**Constructs help to organise, communicate about and understand things that are real. Constructs can work in this way because while not real or observable in themselves, they have a definite relationship to things that are real and observable (Babbie, 2002:122).*

The insights discussed above now require to be incorporated into the theory and it is proposed to accomplish this by making the following changes:

- For the variable Destination Experiences, authenticity is removed as an attribute and Community Innovation is added as an attribute. Regional and local agencies and

Trade Associations are also added as attributes of the variable 'Destination Experiences'.

6.2 The Dynamic Interactions between the Constructs of the Theory

The statements specifying the dynamic interactions between the constructs of DYM as developed in Chapter Four are presented here again as follows:

Matching Supply with Demand = function of (Demand for Destination Experiences, Destination Management Organisation (DMO) and Sustainable Destination Core Resources and Attractors.)

Subject to the capacity of the destination core resources, attractors and constraints of the natural/built environment and the host community.

Destination Revenue Maximisation function of Revenue Maximisation by (SMEs other revenue generating units within the Sustainable Destination Core Resources and Attractors).

Subject to: Water, sanitation, safety, host community capacity of SMEs, attractions, events and natural/built environment.

Destination Revenue Maximisation is a function of:

(Tourists) (Daytrippers) (Overnights) (Revenue) (Admissions)

Subject to Constraints of: Sustainable Destination Core Resources and Attractors,

Accommodation, Natural/Built Environment and Host Community

Rooms (Type, Grade, Location, Restrictions, Volume) Attractors (Capacity)

In all three statements above the host community is incorporated as a constraint. Community was characterised in the interviews as proactive rather than reactive – a driver of development rather than the static role which may be suggested by a constraint. The constraints need to reflect this dynamic dimension whilst acknowledging the limits represented by the extent to which the capacity of a community may sustain destination experiences and provide a hospitable environment for visitors. The constraint local customs

replaces community as the previous term used in this context. The statements of interaction are therefore as follows:

Matching Supply with Demand = function of (Demand for Sustainable Destination Experiences, Destination Management Organisation (DMO) and Destination Core Resources and Attractors.)

Subject to the capacity of the destination core resources, attractors and constraints of the natural/built environment and local customs.

Destination Revenue Maximisation function of Revenue Maximisation by (SMEs other revenue generating units within the Destination Core Resources and Attractors).

Subject to: Water, sanitation, safety, local customs capacity of SMEs, attractions, events and natural/built environment.

Destination Revenue Maximisation is a function of:

(Tourists) (Daytrippers) (Overnights) (Revenue) (Admissions)

Subject to Constraints of: Destination Core Resources and Attractors, Accommodation, Natural/Built Environment and local customs

Rooms (Type, Grade, Location, Restrictions, Volume) Attractors (Capacity)

6.3 Lawful State Space of the Theory

Reference was made in Chapter Four to EU competition law as delineating the boundaries of the theory. In the interviews it emerged that a group of tour operators operating in Ireland threatened to take legal action against the Irish Government because of the manner in which the DMS was functioning. As the case did not go to court it is not possible to know if this challenge would have been sustained. An outcome of the threatened court case was that a set of protocols were put in place to ensure a separation between the information provision functions of the DMS and the reservations taking dimension. The threatened court case illustrates that when a DMS which is government assisted is seen to act for individual businesses in a proactive way it may be challenged. However where each SME is required to pay a transaction fee when it authorises the DMS to take and sell inventory on its behalf it seems that the DMS could lawfully operate as envisaged in DYM theory.

6.4 Lawful Event Space of the Theory

The boundaries of the theory are determined only by those transactions which relate to destination core resources and attractors. Hence although one of the interviews focused on the overall price to the visitor DYM does not incorporate revenue maximisation by transport modes such as air and sea which feed the destination.

6.5 Pricing and Rate Fence Policy

Following on from the previous section the Destination Pricing Policy is enhanced by the addition of a focus on not just the pricing of individual elements of the destination but also a series of estimated overall expenditure for a range of visitor profiles. This will concentrate attention on the need to find mechanisms to integrate elements of the destination experience such that value is created for the visitor.

6.6 Contribution to Existing Theory

The Competitive Destination Model of Ritchie and Crouch (2003) is comprehensive with its nine functions of destination management and elements of the competitive destination. It is however a static model with little evidence of identifying key components which need to work together or how these components may work together. DYM makes the link within Destination Management between the demand by the visitor for destination experiences and demand for the services and products of individual enterprises. This gives an enterprise perspective to the DMO and a destination perspective to the participating SMEs. In the 36 components and 117 indicators of the Ritchie and Crouch model the term revenue or profit does not feature. Likewise, there is no evidence of the concept of destination yield. DYM successfully brings these dimensions in an integrated fashion to Destination Management.

6.7 The Academic Contribution

In this research traditional YM has been developed and used to postulate a theory of DYM. The outcome of this research has been the redirection from demand focused on perishable assets of a single SME to demand for the collection of destination experiences.

It follows from the above that the capacity which needs to be considered is the capacity of the destination core resources and attractors. In turn the infrastructure needed to operationalise DYM has been identified as a DMO and its accompanying DYMS.

DYM as conceptualised in this research is based on each individual SME maximising its own revenue facilitated by the DMS. A definition of DYM has been stated as:

“Destination Yield Management is Revenue Maximisation for multi entities operating in a single sector and/or multi sectors in a given destination.”

6.8 Conclusions

DYM provides the theory to operationalise the recommendations of the EU study on YM and tourism SMEs.

The report recommended:

- The need for cooperative arrangements to facilitate the development of joint yield management systems for businesses which lack the size, communications and marketing resources to carry out yield management independently,
- The need to develop yield management systems for local tourism offices as a potential means of providing the benefits of yield management to small businesses,
- That existing destination information systems should support the implementation of collective yield management,

DYM operationalises Yield Management which is one of the enabling technologies identified by the EU as necessary for destinations and their SMEs to fully participate in the Information Society. This strategic advance will allow organisations and individuals to perform more effectively.

DYM contributes to the Conceptual Model of Destination Competitiveness of Ritchie and Crouch by providing an account of how key components in the model need to operate together in order to facilitate SME revenue maximisation. In this regard, it addresses a deficit in existing theory.

DYM enables periods of poor demand to be anticipated more rapidly and more accurately. It provides a mechanism which facilitates the operation of the market by bringing together producers with available capacity and buyers. There is scope for destinations to use price discrimination to increase capacity utilisation.

Elements of DYM are already in practice in Ireland and the existing DMS in Ireland could operationalise some of the proposed theory. The trade organisations have an existing function in operationalising DYM and this role is important in advancing the theory.

6.9 Recommendations

The developing theory needs to be disseminated to motivate interest and to condition the sector for further initiatives. This could consist of seminars, journal papers, books and electronic resources. There should be an emphasis on informing and thereby motivating the trade organisations to incorporate the operationalising of DYM as an integral part of their activities.

The developing theory needs to be presented to the tourist policy developers in the EU. Technology vendors need to understand this new way of thinking in order to begin the process of creating a receptive context for initiatives in developing any necessary software in this area.

The Irish Company which supplies the current DMS services to Ireland could be invited to explore the possibility of developing a DYM product for sale in other locations.

The in-depth interview approach used here should be replicated in a number of countries and/or regional destinations in different parts of the world in order to further strengthen the developing theory. This could readily be done in countries, such as Jordan, Scotland, Denmark, Austria, Switzerland and/or destinations, such as Hawaii, Mauritius and Fiji.

6.10 Reflection and Future Research Directions

The theory developed in this research will lead to different destination management practices in the future. The range of knock-on relationships arising from the operationalised form of DYM cannot yet be usefully evaluated and reflected upon.

Destinations and their SMEs are by definition at an early stage in relation to their knowledge of this new developing theory although it is evident from the in-depth interviews that elements of DYM exist in practice. As the development continues the process will be symbiotic as empirical data from other destinations will contribute to and strengthen the theory. The process of theory development therefore will continue for some time before it can be said to be complete and comprehensive.

A number of other comments may be made. Inherent in the development of the theory is the assumption that it is suitable for mature destinations in sophisticated environments. Perhaps it is appropriate to replicate the in-depth interview approach now to deliberately look outside such environments and look for contrary evidence as this also serves to modify and sharpen the focus of the theory.

It is also useful to speculate now how the research might have been conducted differently. The empirical phase could have used a survey instrument with a large sample administered across a number of mature and less well established destinations in different countries seeking evidence of rate fences, demand management, capacity management and use of DMSs. Such a survey could be based on the hypothesis that where there is evidence of elements of DYM in use that destination revenues are higher. However such an approach makes it problematic to present an overview of the theory and is less likely to capture the richness which is derived from qualitative interviews.

The recommendations for future research directions are as follows:

Research which focuses on maximising the benefit to the consumer and provider of reducing transaction costs which normally occur when elements of the destination experience are

purchased from a range of enterprises. The research would maximise the benefits which may be gained from all destination inventory being available for management and sale on one common platform.

Research the consumer behaviour aspects of destinations operationalising a greater level of price discrimination and demand management. The research will focus on issues such as consumer reaction to rate fences and pricing strategies designed to maximise utilisation of capacity and revenue.

Investigate in-depth the threatened court case by the tour operators operating in Ireland against the DMS used by the Irish Tourist Authority in 1998. This would involve an examination of the affidavits and the documentation held by the state agencies and government departments concerned. The purpose is to seek to derive lessons which could inform and anticipate difficulties which may arise in the course of implementing DYM.

Following from the preceding recommendation there is a need to research how DYM may best partner with large tour operators rather than pursue a course which might inexorably lead to damaging confrontation.

There is a need for a technical study which examines the extent to which existing algorithms used in traditional YM need to be adapted to operationalise DYM. Research the behavioural aspect on the supply side focusing on SME proprietors with a view to presenting participation in DYM in a manner which allays any apprehensions which may arise.

Set up a limited project focused on the current reservations system which is used exclusively for selling self catering accommodation for a range of individual enterprises in Ireland West. The operation of the existing system may shed light into consumer aspects and behavioural aspects of the SMEs involved. In addition it may be useful as a base to test DYM in full operation.

Finally specify, seek funding, locate and carry out a detailed study at a given destination in order to evaluate DYM in its comprehensive form.

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GLOSSARY

Advance Reservations

There may exist a time lag between the purchase and consumption of the service by the customer. This lag may vary across distinct market segments.

Attributes

Attributes are characteristics of a variable.

Authenticity

Authenticity reflects a 'sense of place'. It represents what currently exists; cultural, historical and natural resources form the foundation of establishing authenticity.

Average Daily Rate

This statistic is used by hotels. It is the total room revenue for a given date divided by the number of rooms available on that date.

Axioms or Postulates

Axioms or postulates are fundamental assertions, taken to be true, on which a theory is grounded (Babbie, 2001:52).

Block Bookings or Groups

Such blocks of business may consist of a conference which generates many delegates. It may consist of fully inclusive tours (FITs) whereby a group of individuals purchase an integrated package of all their transport, entertainment, food and accommodation.

Blue Book

This is a marketing association comprising many of Ireland's Country Houses, Manor Houses, Hotels, Castles and Restaurants. These Houses provide an unusual and attractive alternative to conventional tourist accommodation

Bundling Strategies

This is an approach which effectively gives the customer a discount but maintains the posted price of periods of high demand. Hence, for example a customer could buy two nights at peak season and get one free during a quiet period.

Concepts

A concept may be defined as an abstract or generic idea that will often be a building block of theory. It may also be expressed as an abstract element representing a class of phenomena which corresponds to a distinct entity or its essential features (Babbie, 2000: 52).

Constructs

Constructs help to organise, communicate about and understand things that are real. Constructs can work in this way because while not real or observable in themselves, they have a definite relationship to things that are real and observable (Babbie, 2000: 122).

Consumer Surplus

Such surplus arises because in a market with a single clearing price, customers with inelastic demand would have been prepared to pay more than the single market price.

Day trippers (or Excursionists)

These are defined as temporary visitors staying less than twenty-four hours in the country visited (including travellers on cruise ships). This is the definition approved by the WTO (IUOTO, 1963 from Leiper, 1979:393).

Demand Lead Pricing

This refers to restricting available rates to the higher price categories and making a range of lower rates available during periods of slack demand.

Destination Competitor Analysis Policy

This facilitates each SME having a view of the prices their corresponding providers achieve in competitor destinations and how their destination is positioned within this competitor set. Hence, a destination which deems itself to be in a leadership position in the set may accordingly price its services at a premium.

Destination Core Resources and Attractors

These may be defined as physiography, culture and history, activities, special events, superstructure market ties and entertainment. Tourism superstructure is defined as

buildings or facilities that primarily serve the needs or interests of tourism/hospitality visitors (Ritchie and Crouch, 2003: 111 and 125)

Destination Evaluation Indices

Destination evaluation indices are the following:

Destination Revenue Generation Index (DRGI)

Destination Market Penetration Index (DMPI)

Destination Average Rate Index (DARI)

These are all explained as follows:

Destination Market Penetration Index

$$\frac{\text{Destination occupancy \%}}{\text{Competitive Set Occupancy \%}} = \text{Destination Market Penetration Index (DMPI)}$$

The Destination Market Penetration Index measures how well/badly the destination is doing in terms of occupancy in comparison to its competitive set. Anything over 1 means it is doing better.

Destination Average Rate Index

$$\frac{\text{Destination Average Daily Rate}}{\text{Competitive Set Average Daily Rate}} = \text{Destination Average Rate Index (DARI)}$$

Destination Revenue Generation Index

$$\text{Destination Revenue Generation Index} = \text{Destination Market Penetration Index} \times \text{Destination Average Rate Index}$$

Destination Rate Fences Policy

The SME selects those fences which are appropriate to its market segments and category of accommodation. Implementation of a common policy on fences is important as an individual SME, unless dominant in the market place, may have difficulty in unilaterally enforcing conditions attached to its rates.

Destination Management

Destination Management has been defined as a process comprising a number of management functions, including organisation, quality of service/experience and resource stewardship (Ritchie and Crouch, 2003:183).

Destination Management Organisations (DMOs)

Destination Management is operationalised through what are referred to as Destination Management Organisations. A DMO may be a public organisation, private or combination of both.

Destination Management Systems

Destination Management Systems (DMSs) can be described as the IT infrastructure of the DMO (Sheldon, 1997, in Collins and Buhalis, 2003:202).

Destination Occupancy

The ratio of total destination capacity utilised and total capacity available during a given period.

Destination Pricing Policy

For each provider the Destination Pricing Policy provides guidelines on building a rate structure from rack rate through lowest rate for a similar product. These decisions are also supported by reference to forecasts for the individual SME provided by the DYMS.

Destination Revenue Maximisation

Destination Revenue Maximisation is a function of visitor numbers, their expenditure and the capacity of the destination constrained by local, community and environmental norms. SME revenue maximisation results in destination revenue maximisation.

Dilution

This refers to a situation which can occur where capacity is sold too early at the lower range of prices thereby diluting total potential revenue.

Displacement

Customers who may wish to book a number of connecting flights or a continuous stay in a hotel may be displaced by customers who have reserved one flight only or one room only. This may lead to revenue losses.

Enclosed Destinations

Enclosed destinations, such as Club Med or Disneyland, are corporate entities with defined boundaries, a management structure and gated points of access.

Fáilte Ireland

Fáilte Ireland, the National Tourism Development Authority established under the National Tourism Development Authority Act, 2003, brings together and builds on the functions previously discharged by Bord Fáilte and the Council for Education Recruitment and Training (CERT). Fáilte Ireland works in strategic partnership with tourism interests to support the industry in its efforts to be more competitive and more profitable and to help individual enterprises to enhance their performance.

Global Distribution System

A global distribution system is a computer distribution system for displaying available services, effecting bookings and ticketing by tourism producers – airlines or otherwise – on an international scale (WTO, 1994:7).

Gulliver

Gulliver is the electronic information and reservation network for the Irish tourism industry.

Hidden Ireland

Hidden Ireland is a marketing organisation which features a collection of historic private homes. It differs from other organisations in that these are not categorised as B and Bs or hotels.

Host Community

A host community broadly consists of the indigenous population of the destination. It includes those not directly involved in the provision of tourist services. A host society is

expected to provide tourist services. The types of services provided may be no more than the construction of a road through a village, allowing access to a historical site (Gartner, 1996:161).

Hypothesis

A hypothesis is a specified testable expectation about empirical reality that follows from a more general proposition (Babbie, 2001:52).

Inventory

Inventory refers to the capacity of an operational unit. An operational unit is identified by its capacity at a specific geographic location. A 100 seat aircraft, a 200 room hotel, a fleet of 70 automobiles. (This definition takes into account that the seat per flight in the aircraft is the unit of sale. The automobile day is the unit of sale in car rental, hence a fleet is required.)

Inventory Allocation

The practice of allocating inventory (rooms, seats, automobiles) among various fare or price levels is designed to maximise the expected revenue of future scheduled flights. This is done by protecting inventory for higher revenue consumers while making otherwise empty seats available to lower revenue passengers.

Inventory Search

In the context of DMS this refers to the process of presenting to the potential visitor with available inventory from a range of providers within the price range specified by the query.

Ireland West Regional Tourism Authority or colloquially referred to as RTAs.

Ireland West Tourism is the official Regional Tourism Authority for Galway, Mayo and Roscommon. The organisation is the principal contact for all individuals, organisations and authorities involved in tourism at local and regional level.

Last Room Availability

This is a benefit which may be attached to a particular rate. The consumer who can access a rate which has the feature of last room availability is entitled to a room if there is one

available. This applies even when expected revenue from other potential customers may be higher.

Lifestyle Businesses

Lifestyle businesses tend to be set up to provide owner-managers with an acceptable level of income at comfort levels of activity

Market Failure

In economics, market failure is a case where markets fail to efficiently provide or allocate goods and services. The two main reasons that markets fail are suboptimal market structures and the inability to internalise costs or benefits into the economic system. In the case of tourism where benefits are widely dispersed it is not economically viable for an SME or even necessarily groups of SME to unilaterally promote a destination. Hence in many destinations promotion is government assisted.

Market Segmentation

This involves specifying discrete groups with distinct attributes in a given market. The attributes may relate to the customer's sensitivity to price and the level of flexibility provided by the rate fences.

Micro Business

Employs less than 10 persons and annual sales or balance sheet not higher than 2 million Euro (EU, 2003).

Multi Operational Units

This refers to more than one operational unit. Hence a number of aircraft, more than one hotel, more than one fleet of automobiles.

No-Show

Customers who have made a reservation and who do not show up.

Occupancy Rate

A statistic commonly used in hotels. It is the ratio of inventory occupied to inventory available in a given time period.

Open Destinations

In open destinations, visitors and residents mingle and there are private and public stakeholders such as local government and the host community.

Operational Unit

An operational unit is identified by its capacity at a specific geographic location. A 100 seat aircraft, a 200 room hotel, a fleet of 70 automobiles. (This definition takes into account that the seat per flight in the aircraft is the unit of sale. The automobile day is the unit of sale in car rental, hence a fleet is required.)

Overbooking

In order to compensate for no-shows or cancellations inventory in excess of capacity is sold. This practice is known as overbooking and carries the risk of oversales i.e., it's customers who show up but who cannot be accommodated. It's arguable as to which is the more serious situation: missing a chosen flight or finding no room at a hotel.

Overnights/Bednights

A measure commonly used in hotels. It is a time based measure specifying the maximum time between check in and check out normally 6pm to noon.

Perishable Assets

A perishable asset is a time defined service which involves the temporary use of a product, such as an airline seat, rental car, hotel room. At a given point of departure or the elapse of a given time period that service has no value.

Prepaid Voucher Business

In the context of this research this refers exclusively to accommodation vouchers issued by the Town and Country Homes Association normally to tourists. They feature last room availability and are redeemable at any home which is a member.

Price Discrimination

This consists of selling identical goods at different prices from a single vendor. The boundary set up by the vendor to keep segments separate is referred to as a rate fence.

The purpose of price discrimination is to transfer some of the consumer surplus from the consumer to the producer/marketer.

Pricing Structure

This concerns the range of prices which the vendor posts for different products and services, the relationship between one price level and another, and the issue of using a single price strategy or price discrimination.

Propositions

Propositions are specific conclusions about the relationships among the concepts that are derived from the axiomatic groundwork (Babbie, 2001:52).

Quality Assurance

Communicating the measures used to monitor the specified service delivery to the consumer.

Rack Rate

The so called rack rate is the highest rate posted for a given service. The rack or full rate customer does not belong to a market sector with homogenous characteristics. It is a sector who through force of circumstances or scarcity of a service is forced to pay the full rate.

Rate Mix

A fully segmented market will have differing demand characteristics and revenue earning potential. It is necessary to make a decision regarding how much, if any, inventory to allocate to each market segment in order to maximise revenues. The outcome is known as the rate mix. Note that this is a meta decision which would state that sixty percent of inventory is allocated to corporate rates. In turn, that target will be further broken down into many sub targets and their accompanying rates.

Rate Fence

Where price discrimination is practised it is necessary to set up barriers to prevent customers reselling or accessing lower prices than they might otherwise be prepared to

pay. In tourism this involves attaching conditions to prices, such as advance purchase and minimum volume (see Appendix One for a full range of sample fences).

Reference Transactions

This refers to how a customer *thinks* how much a given service should cost. Reference prices come from market prices, posted prices and past experience with the company.

Revenue Maximisation

The goal of revenue maximisation is a goal pursued by the producer/vendor and the aim is to recapture as much consumer surplus as is possible. Rather than pursue a single price strategy the producer will in this instance practice price discrimination.

Sector

This term categorises the type of service provided by each entity i.e., air transportation, hotel accommodation. An entity might operate in a single sector i.e., hotel accommodation only, or more than one providing services which are multi-sector i.e., hotels, cruise lines, airlines and car rental.

Single Entity

Single entity may refer to an individual or a corporation. Entities may have one or a number of operational units, i.e., a single operational unit or multi operational units.

Single Operational Unit

An operational unit is identified by its capacity at a specific geographic location. A 100 seat aircraft, a 200 room hotel, a fleet of 70 automobiles. (This definition takes into account that the seat per flight in the aircraft is the unit of sale. The automobile day is the unit of sale in car rental, hence a fleet is required.)

Spill

If available competitive rates for a specific service are higher than another provider some portion of competitive demand may “spill” and appear as demand for the lower priced provider.

Testable Propositions

A general proposition provides a testable expectation and research designed to test the proposition.

Time Sensitive Customers/Price Sensitive Buyers

Some buyers find that costs associated with travel may determine its timing, these price sensitive buyers will modify, postpone or cancel travel plans rather than exceed their budgets.

Time Insensitive Demand/Price Insensitive Buyers

For some the cost of airfare plays a small role in their travel plans. While they would prefer to pay less, a higher fare will not discourage them from travelling. (Orkin, 1990:36)

Town and Country Homes Association

There are over 1,800 Bed and Breakfasts in the Town and Country Homes Association which has been in existence in Ireland as a professional trade representative body for 30 years. This category of accommodation covers a variety of houses in urban and rural areas ranging from the modern bungalow or 'semi-detached' 2-storey house to the larger period-style residence. Their main attraction is their homely atmosphere and the opportunity they provide to meet people in their own homes.

Tourists

Temporary visitors staying at least twenty-four hours in the country visited and the purpose of whose journey can be classified under one of the following headings: (a) leisure (recreation, holiday, health, study, religion and sport), (b) business, family, mission, meeting. (IUOTO, 1963 from Leiper, 1979:393).

This is the definition approved by the WTO and they encourage countries to use it.

'Typical days'

Patterns of days which have a certain composition of market segments and the timing of such days.

Variables

Variables are logical groupings of attributes. The variable gender is made up of the attributes male and female.

Yield Management

Yield Management is the practice of maximising revenues from the sale of perishable inventory through the systematic coordination of forecasting, pricing, market segmentation and allocation of inventory. YM does not generate demand but using the approach may reveal demand that was not formerly apparent and manages this demand.

APPENDICES

Appendix One

Rate Fences Policy

Required stay over FRI or SAT. Max Length of Stay 3. Net of VAT includes brkfst and one option.
Required stayover Saturday. Min Length of Stay 2, Max Length of Stay 5. One night penalty if cancelled within 7 days of arrival.
Bookable 7 days or more before arrival. Available all days of the week.
1 night deposit is required. 1 st night cancellation fee will apply if entire stay is cancelled or the arrival date is changed within 7 days of arrival.
Arrival day is final. Requires 1 st night deposit that cannot be refunded and arrival date cannot be changed.
Requires full payment for the entire stay. No refunds or changes to the reservation are allowed.
Minimum 2 nights of stay. Requires full payment for the entire stay. No refunds or changes to the reservation are allowed.
Bookable within 20 days of arrival. Requires full prepayment for the entire stay. No refunds or changes to the reservation
Bookable minimum 21 days before arrival. Requires full repayment for the entire stay. No refunds or changes to the reservation.

Appendix Two

A Theory of Destination Yield Management

Michael Mulvey Director, Faculty of Tourism and Food, Dublin Institute of Technology

Destination Yield Management (DYM)¹ takes the concepts of traditional Yield Management (YM)² and provides a framework which assists in applying them to an entire destination. This can materially improve the returns earned in the tourism industry in a way which is measured by increased yield³ for the destination, particularly its Small (including micro) and Medium Sized Enterprises (SMEs). DYM focuses on the premise that tourists and day trippers are motivated to travel, rarely by the unilateral initiatives of a single insufficiently resourced SME, but rather by the magnetism of the destination core resources and attractors⁴ and the experience/s associated with them.⁵

¹ Destination Yield Management is revenue maximisation for multi entities operating in a single and/or multi sectors. Traditional Yield Management has tended to be the presence of larger corporations in airlines and hotels (Mulvey, 2004).

² Traditional may be defined in a number of ways: 'Yield Management consists of the coordination and, thereby, the integration into a coherent activity of the following activities such that the objective of capturing consumer surplus through price discrimination and demand management is achieved, (i) market segmentation and pricing, (ii) forecasting (iii) inventory allocation, (iv) reservations and acceptance (Mulvey, 2004). Withiam (2001) captures the essence of revenue maximisation stating 'The ideal outcome of a revenue management strategy is to match customers' time and service characteristics to their willingness to pay – ensuring that the customer acquires the desired service at the desired time at an acceptable price, while the organisation(s) gains the maximum revenue possible given the customer and business characteristics...based on customers' demand levels management can shift demand of those customers who are relatively price sensitive but time insensitive to off peak times. Shifting that demand clears prime times for customers who are relatively time sensitive but price insensitive.

³ The metric used is as follows

$$\frac{\text{Destination Capacity Sold}}{\text{Destination Capacity Available}} \times \frac{\text{Revenues Realised}}{\text{Potential Revenues}}$$

It should not be assumed that revenue maximisation as formulated here necessarily means always endeavouring to attract the highest spending or wealthiest individuals. Research has shown that where too great disparities exist between visitors from different cultures and life-styles a so called demonstration effect may ensue. This causes economic, social and political impacts – which may lead to a feeling of exploitation. Cultural deterioration may also occur (WTO,1997:15). Gartner provides examples from tropical islands, 'where locals have become part of the beach bum crowd. Whereas the tourists can return home and recharge themselves financially and emotionally, the local beach bum finds that he has adopted a monoculture with few psychologically counterbalancing opportunities' (Gartner, 1996:168).

⁴ 'when all the complexities of destination choice are stripped away, it is essentially the core resources and attractors that underlie the basic desire to travel to a given destination. These also provide the foundation for an exciting and memorable experience,' (Ritchie et al., 2003:110).

From a demand perspective, Leiper clearly identifies the destination as having the attractions which the tourist wishes to experience personally 'It is' he states 'where the most significant and dramatic aspects (of tourism) occur' (Leiper, 1979).

⁵ Smeral (1998), in calling for holistic destination management and flexible production technologies, advocates the delivery of 'commodifiable experiences' to meet 'post-modern' tourism demand. He does not give an example. Gartner provides the example of a staged version of a tribal dance in shortened form whereas the authentic ritual might be spread over some days (Gartner, 1996:170). Jafari (1987) sees the

At the heart of DYM is a coordinating strategy and this is facilitated by Information and Communication Technology (ICT) destination management systems which have the functionality to support destination yield management decisions.⁶ An established DMO with a leadership role in the destination coordinates the key players who are often SMEs and/or micro enterprises. This includes all destination services: accommodation, transport, attractions, shops, car rental, tours, environmental services, policing and parks.

Within DYM, the DMO has a primary role in the creation of destination experiences and in promulgating the use of DYM. The DMO coordinates the DYM activities through the development of a series of destination policies which provide guidelines and support to key stakeholders, particularly SMEs for destination competitor analysis,⁷ pricing and rate fences (to operationalise price discrimination⁸). The DYMS provides an electronic platform incorporating a service with YM functionality for each SME to manage their bookings/reservations and associated transactions is presented. It provides economies of scale, enabling SMEs to avail of a modelling subsystem which analyses the inventory of the SME, and makes recommendations to the consumer for optimal rates.

It aggregates the units of capacity of SMEs and monitors the status of their bookings, thereby facilitating more rapid assessment of periods when bookings are above or below expectations. This in turn informs timely promotional and appropriate pricing responses. From a visitor and supplier perspective the DYMS enables a more comprehensive and rapid response to queries from individuals and groups seeking to book any one or a number of elements which comprise the destination experience. It provides to each

tourist emancipated from ordinary bounds and metamorphosed into a tourist. The tourist can now play any role of his choice – practical jokes by middle-aged conventioners, the ‘have nots’ pretentiously acting rich.

⁶ Baker defines the role of the management systems of the destination as “a form of regional or national champion of the SMEs’ (Baker, 1996). In explaining the use of knowledge management and destination databases on Cheju Island in South Korea, Pyo et al. (2002:401) explain that, ‘the destination can use the knowledge to determine its marketing strategy and tactics in real time, as changes develop in the market place and new tourist demands arise.’

⁷ The competition referred to here is the external competition – the destinations which offer comparable experiences and possibly those which may be chosen by the potential visitor. However, DYM also assists SMEs to compete on level ground for their share of the market attracted to the destination. It may be that within the destination well resourced large scale tourism providers benefit from proprietary YM technology. A case in point in Ireland is the current situation where many chain budget hotels have entered the market in recent years devastating the Bed and Breakfast sector with their pricing policies.

⁸ Price discrimination involves charging different prices for what is essentially the same physical product. This is achieved through a variety of ‘rate fences’ which inhibit one segment from accessing a lower rate than they might otherwise be prepared to pay. A rate fence can involve advance purchase, a minimum duration of stay, membership of a club, corporate membership, prepayment, cancellation fees and so forth. The economic basis for price discrimination is consumer surplus which holds that each service or product represents a level of utility for each individual buyer and this translates into a unique price for each buyer.

stakeholder real time reports, particularly forecasts to all providers of destination services which support the sustainable⁹ destination experience.

Box A

The Importance of Tourism Demand Forecasting

1. *The tourism product is perishable.* This puts a premium on shaping demand in the short run and anticipating it in the long run, to avoid both unsold 'inventory' on the one hand and unfulfilled demand on the other.
2. *People are inseparable from the production-consumption process.* Much of the production-consumption process involves people interacting as suppliers and consumers, such as hotel staff, waiters and waitresses, flight attendants and entertainers. This puts a premium on having enough of the right supply personnel available when and where visitors need them.
3. *Customer satisfaction depends on complementary services.* While a hotelier directly controls only what happens to guests in his or her hotel, the visitor's experience depends on satisfaction with a host of goods and services that make up the visit. A hotel's future demand, therefore, depends on the volume of airlines flights and other transport access to its area, the quality of airport services, the friendliness of taxi drivers, the quality and cost of entertainment and the availability of recreational opportunities, to name just a few of these elements. Forecasting can help ensure these complementary services are available when and where future visitors need them, which will rebound to the benefit of the hotel or other individual tourism facility.
4. *Leisure tourism demand is extremely sensitive to natural and human-made disasters.* The ability to forecast such events and their projected impact on tourism demand can help minimise the adverse effects of catastrophes on the tourism-related sales, income, employment and tax revenue of a place

Adapted from: Frechtling, 2001, pp.5-6.

DYM, therefore, through its DYMS, supports, facilitates and informs Destination Revenue Maximisation which is a function of visitor numbers, their expenditure and the capacity of the destination constrained by local, community¹⁰ and environmental norms. Destination revenue maximisation results in SME revenue maximisation. DYM, by bringing together the variables of the visitor (tourists and day trippers) and their

⁹ Sustainability is used here only in the context of the destination as a place. Of course this sidesteps the debate regarding the very considerable environmental impacts of automobile and other travel modes.

¹⁰ Surfing for fun and fishing for a living provides an intuitively appealing and very specific example of a community norm. Surfers are used to free access to surf breaks, but this culture is derived from Europe. On Pacific Islands and in South East Asia, the local cultures have a Polynesian, Melanesian or Micronesian background. Excluding Hawaii, surfing is not part of their traditional culture, but fishing is subsistence fishing. Consequently every village controls access to nearby seas and reefs. For foreigners to surf without permission, therefore, is certainly rude, possibly illegal under customary law (Buckley: 2002).

associated revenues, supports optimal utilisation of capacity by dynamically managing the relationship between demand and the supply of destination core resources and attractors. This serves to underpin positive, enjoyable and sustainable destination experiences and optimise destination occupancy and earnings. DYM creates a critical mass¹¹ of enterprises which is necessary to condition the market to pricing structures designed to expand utilisation of capacity, shift time insensitive demand to off peak periods and offer competitive pricing to time sensitive customers during periods of buoyant demand.

DYM through coordinating in the implementation of policies on pricing and rate fences on details such as advance purchase, cancellation payments, prepayment tackles the problem of too high a volume of last minute bookings. It endeavours to influence the market which an SME acting alone could have great difficulty in achieving. DYM provides a competitive framework within which each stakeholder, particularly SMEs, are orientated towards their role in responding to the needs of the visitor for a destination experience rather than simply unilateral purchase of a unit of capacity, such as accommodation, a souvenir, a rental car and other tourism services.

The orientation by the SMEs and other stakeholders towards their role in responding to the consumers' need for experiences is achieved through their involvement in developing and then adopting the pricing guidelines and rate fence policies in addition to participating in the competitor analysis. Each SME can provide valuable inputs into the Destination Competitor Analysis (which focuses on other destinations) by gaining insights from guests who are staying in their premises, purchasing goods from holiday outlets, rental service and other destination activities. This facilitates innovations in the destination experience grounding them in the unique aspects which each of the enterprises have to offer. Experiences which have as an essential component the participation of SMEs may more successfully counter both intra-destination competition and external destination competition. DYM leads to a greater total volume of revenues

¹¹ SMEs have difficulty in taking unilateral action on pricing policies, such as advance purchase and cancellation fees. Yet consumer surplus theory requires rate fences to achieve revenue maximisation. Belobaba (1987:71) in his research on airline pricing practices established that American Airlines despite being one of the largest carriers in the United States was obliged to curtail its pricing policies and associated rate fences as it were too far ahead of the rest of the market. Likewise, the Marriott corporation counselled its individual hotels to apply rational pricing or a price discrimination approach only in situations where it occupies a leadership position in the local marketplace (Marriott, 1996).

and tourists and higher average revenues per component of capacity than destinations which do not practice DYM.

Summary

The constructs, variables and attributes of DYM are summarised in the table which follows.

Table 1 The Constructs, Variables and their Attributes

<i>Constructs*</i>	<i>Variables</i>	<i>Attributes</i>
	Measurable aspects of the concept	Characteristics of a variable
Demand for Sustainable Destination Experiences	Tourist Day tripper	<i>Market Segment Characteristics</i> <i>ie</i> Booking Trends
Destination Core Resources and Attractors	Overnights Revenues Admissions Inventory	<i>Inventory & Management</i> <i>ie</i> Grade of Rooms Capacity of Attractions Prices
Destination Management Organisation (DMO) (including the Destination Yield Management System DYMS).	Production of experiences Destination Yield DYM practice	<i>Evaluators of Experiences</i> <i>ie: Authenticity</i> ¹² <i>Evaluation of Practice</i> Pooling Inventory

* *Note: Constructs help to organise, communicate about and understand things that are real. Constructs can work in this way because while not real or observable in themselves, they have a definite relationship to things that are real and observable (Babbie, 2000: 122).*

Testable Propositions

A central coordinating mechanism enables producers and the DMO to achieve a greater level of precision synchronising supply with demand. DYM can more rapidly identify periods of slack demand because it is aware of the destination wide status of sold and unsold inventory. It can therefore respond by targeting promotional spend during these periods.

DYM facilitates a more rapid and dynamic response to crises. It is aware of the current status of sold and unsold inventory and is thereby enabled to propose scenarios to meet

¹² Authenticity reflects a ‘sense of place’. It represents what currently exists, cultural, historical and natural resources form the foundation of establishing authenticity. Development of authentic attractions and associated experiences are more compatible with a sustainable development strategy. In general terms, the farther removed from an authentic attraction the destination community becomes, the greater potential for higher levels of sociocultural impacts, but also for higher economic returns (Gartner 1996. 358 and 360).

the challenge. DYM contributes to data warehousing, a more precise level of forecasting and greater analysis of the booking patterns of the consumer.

DYM integrates the community, economic and environmental responsibilities of the DMO with the commercial interests of the SMEs. The competitive framework of DYM orients the involvement of the SMEs towards the visitors demand for sustainable destination experiences.

DYM contributes to improving value to the consumer by offering unused capacity at rates which certain market segments could not otherwise afford. In turn this increases capacity utilisation and thereby reducing dependency on demand lead pricing at peak periods.

DYM provides the framework and mechanisms which enable YM for SMEs. This is effected through economies of scale by providing a common platform to support and coordinate transactions, market segmentation, pricing, rate fencing, inventory allocation and the required ICT infrastructure.

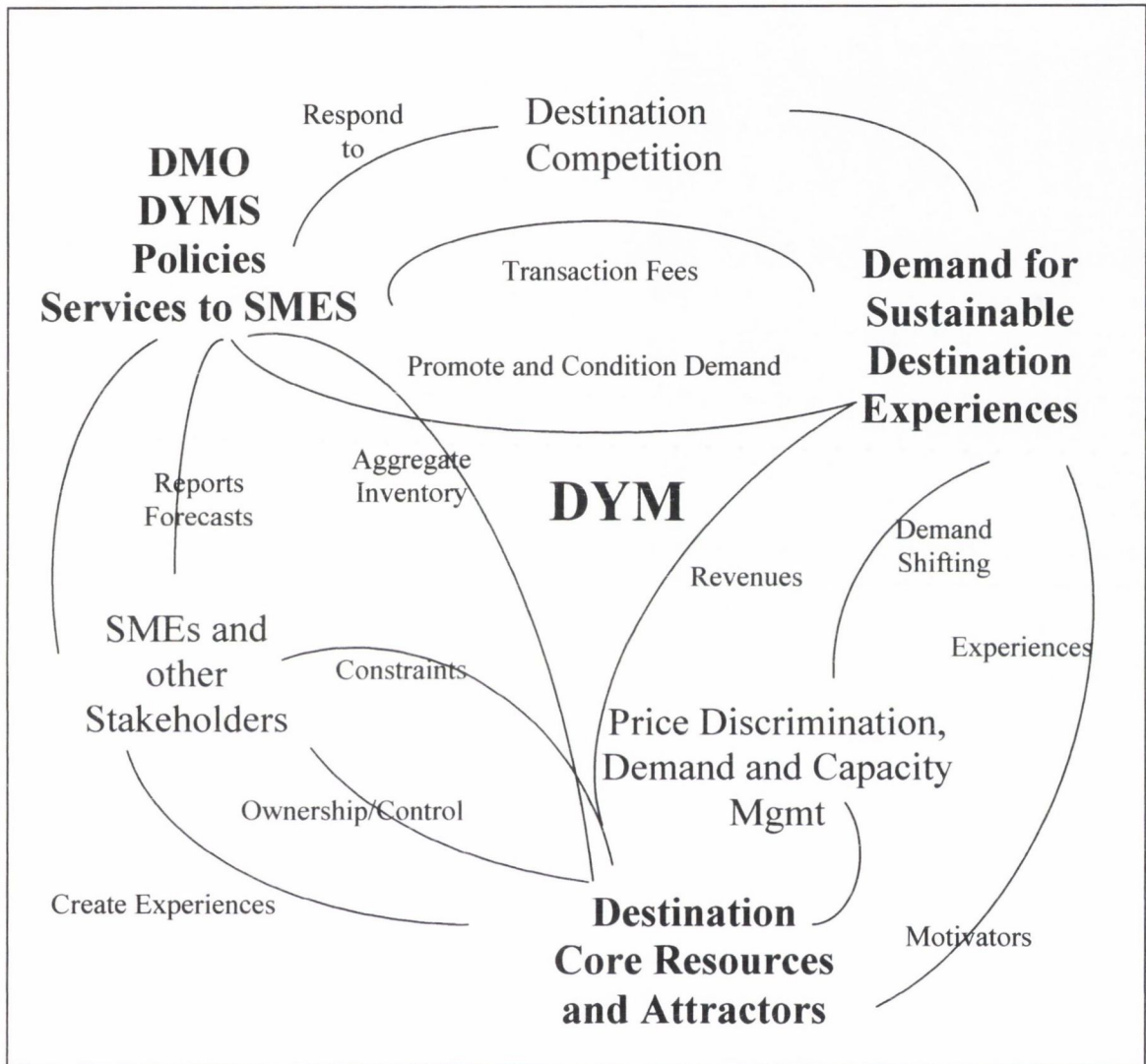
DYM facilitates SMEs in facilitating the pooling of their inventory for the purposes of tendering for group business or prepaid voucher business. It facilitates the operationalising of loyalty points, offering of slack inventory as a bonus on payment of peak rates.

DYM provides the base for 'reference transactions' which build the case to change perceptions regarding pricing policies and rate fences necessary to operationalise a greater level of price discrimination and rate fencing by all destination SMEs. This avoids a lone initiative by one SME. The challenge of what would more than likely be an unsuccessful attempt at such a policy if taken on a unilateral basis is taken on by the destinations as a whole.

DYM counters the instability and quality assurance problems caused through last minute booking by providing a critical mass of incentives to encourage early booking.

DYM boosts demand by maximising capacity utilisation, supporting value, diversifying the markets, supporting revenue maximisation by SMEs and increasing total year round spend in the destination.

The schema below is a representation of the theory of Destination Yield Management



Key: DMO: Destination Management Organisation, DYMS: Destination Yield Management System, DYM Destination Yield Management, SMES, Small (including micro) and medium sized enterprises, Stakeholders: Community, Local Government, Destination Management Organisation.

Appendix Three

Extracts from Fáilte Ireland Handbook

The following advice to business is provided in a marketing handbook used by Fáilte Ireland. This was given to me by the Bed and Breakfast proprietor,

Yield Management

There is evidence of the regional authority encouraging the SME to focus on their Yield and providing advice as to how this should be done. There is mention of measures which could be considered to comprise demand management, but price discrimination is not explored as fully as it might be. There is the impression that the compiler of the book is not fully informed about it.

'A list of some of the items for inclusion in a marketing budget is as follows: List of 12 items which include 'research' page 14'.

'...analyse records of previous guests...this is often referred to as a database...the same for groups.' Page 15

'It is important to analyse your occupancy level month by month and to examine trend. Have you accommodation to sell every Sunday and Monday.'

'Marketing is also about filling the gaps that will not fill themselves. It is not necessarily about getting business at any time or at any rate, it is optimising your potential to increase both occupancy and rate. Could you offer a special rate to your weekend guests to extend their stay or to your Monday guests to arrive early (Demand Management). Offering special rates on certain nights is a form of YM. YM basically means getting as much revenue from selling the product as you can. You need to assess what percentage of your product will be sold at the full rate, what needs to be sold at a reduction and what is the lowest price you can accept that still contributes towards your fixed costs, such as rates, food etc.'

This is a good workable definition of YM but it leaves out the price discrimination dimension – there is a demand management dimension inherent here. The section continues:

'When clients that have stayed with you in April are checking out can you give them details of a special offer that you are offering to former guests the following November when your occupancy might be low?'

pages 16 and 17

Source: Handbook: Marketing your Business: Making Marketing a Priority for Small and Medium Enterprises in Tourism, Fáilte Ireland, 2003.