

2003-01-23

## Destination Management Systems – Electronic Distribution Effectiveness amongst SMEs in the Hotel Sector

Patrick Horan

Technological University Dublin, patrick.horan@tudublin.ie

A Frew

QMU

Follow this and additional works at: <https://arrow.tudublin.ie/tfschmtcon>



Part of the [E-Commerce Commons](#)

---

### Recommended Citation

Horan, Patrick and Frew, A, "Destination Management Systems – Electronic Distribution Effectiveness amongst SMEs in the Hotel Sector" (2003). *Conference papers*. 8.

<https://arrow.tudublin.ie/tfschmtcon/8>

This Conference Paper is brought to you for free and open access by the School of Hospitality Management and Tourism at ARROW@TU Dublin. It has been accepted for inclusion in Conference papers by an authorized administrator of ARROW@TU Dublin. For more information, please contact [arrow.admin@tudublin.ie](mailto:arrow.admin@tudublin.ie), [aisling.coyne@tudublin.ie](mailto:aisling.coyne@tudublin.ie).



This work is licensed under a [Creative Commons Attribution-NonCommercial-Share Alike 4.0 License](#)

# Destination Management Systems - Electronic Distribution Effectiveness amongst Small and Medium-sized Enterprises in the hotel sector.



Dublin Institute of Technology

Student: Patrick Horan  
Supervisor: Prof. Andrew Frew




Queen Margaret University College

## Introduction

Tourism is an information intensive activity and the generation, gathering, processing, application and communication of information are vitally important for day-to-day operations (Buhalis 1994). Tourists rely on a wealth of information before making a decision and, therefore, the effective marketing and distribution of tourism is becoming increasingly dependent on IT (Horan and MacDonail 1996). Hospitality operators, especially SMEs, have little data upon which to base an assessment of electronic distribution channel effectiveness with sparse look-to-book ratios being among the few metrics offered. This work will seek to assess effectiveness criteria from both client and server perspectives and will map both qualitative and quantitative data into a modelling process to represent the effectiveness of distribution channels, DMS in particular, and offer a methodology for SME electronic distribution channel benchmarking more generally.



## Aims & Objectives

- To evaluate electronic channel-choice strategies and outcomes amongst hotel SMEs
  - To construct a methodology and generate a set of metrics for evaluating the DMS electronic channel
  - To model and validate DMS metrics against peer systems and client assessment.
- 
- Identify both expert and client (SME) views on channel effectiveness criteria 
  - Assess the DMS (VisitScotland) against these weighted criteria
  - Generate guest volume, value and transactional metrics through log file analysis of the DMS (VisitScotland)
  - Elicit SME data on guest volumes, values and sources
  - Derive a channel-assessment model relating server and client data
  - Validate this model through server and client iteration in Scotland and a parallel study in Ireland (Gulliver)

**Destination Management Systems (DMSs)** distribute a wide variety of tourism products, are generally government sponsored, and pay particular attention to representing small and independent tourism suppliers (Buhalis and Licata 2002). However, the market is realising that consumers do not want to deal with the problems of contacting multiple suppliers to make comparisons and purchases. Some, if not most, will want and will be prepared to pay for the level of service that comes from dealing with an intermediary, who will offer them advice and save them time and money (Bloch and Segev 1996). Consequently, DMS based channels are forecast to grow in importance (O'Connor 2001).



## Conceptual Framework.

**Electronic Distribution:** The manner in which hospitality companies bring their product to market remains a cornerstone of any competitive strategy. The number, variety and complexity of Web distribution channels are continuing to evolve, with most companies using multiple routes to get their product to the consumer (Castleberry, Hempell et al. 1998). Many hotel chains opt for as many routes as is feasible to try to reach the maximum audience. This approach is impossible from an SME's perspective as many of distribution channels are unavailable to SMEs (Starkov 2002). Hotel SME's must take a more discriminating approach to channel choice and, therefore, it is vital for SMEs to formally evaluate their distribution channel options.



## Destination Management Systems - Electronic Distribution Effectiveness amongst Small and Medium-sized Enterprises in the hotel sector.

**Effectiveness:** Attempting to evaluate the effectiveness of hotel electronic channels of distribution is both complex and multifaceted (Castleberry, Hempell et al. 1998). Different types of hotels benefit in different ways from various channels and not all systems work as effectively for all types of properties (Bush 2000). Determining the effectiveness of a distribution channel makes clear business sense. The decision as to which channel(s) to use has become increasingly complex, and hotel managers currently have few tools and little guidance to help them to determine which best match their needs (Weill 1991).



**Small or Medium-sized Enterprises (SMEs)** in the hospitality industry offer by definition less than 50 rooms, employ fewer than 10 people, operate in lower reaches of the market and are often situated in tertiary locations (Buhalis and Main 1998). The European hotel sector is dominated by small operations with nearly 95% being classified as SMEs (WTO 1997). Only 30% of European hotels are affiliated to a chain, as against approximately 70% in the United States (Muqbil 1998) and the importance of SMEs to the European economy is widely recognised.



# Destination Management Systems - Electronic Distribution Effectiveness amongst Small and Medium-sized Enterprises in the hotel sector.



Dublin Institute of Technology

Student: Patrick Horan  
Supervisor: Prof. Andrew Frew



Queen Margaret University College

## Methodology

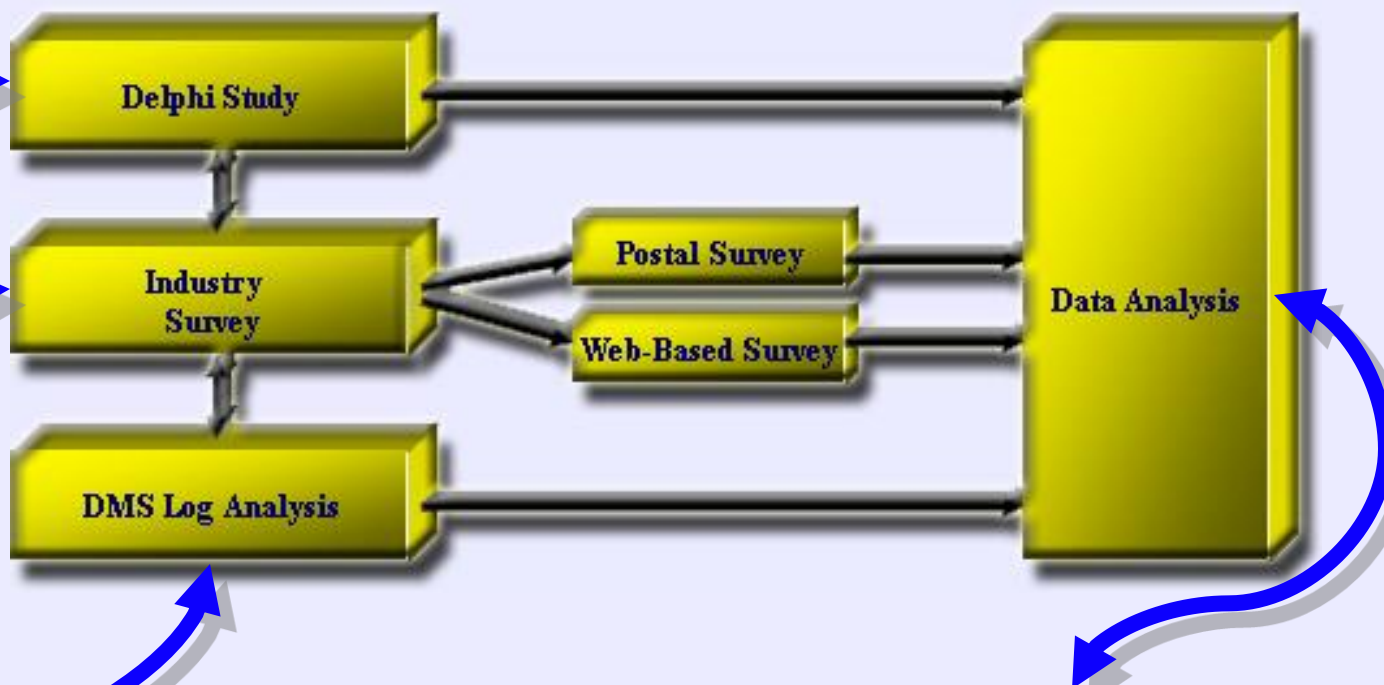
**Delphi Study:** The first tier is concerned with qualitative research conducted using a Delphi study in conjunction with server and client survey work to generate, validate and prioritise a portfolio of weighted criteria that could be used to evaluate the general effectiveness of a DMS as a channel of distribution for hotel SMEs. This assessment looks at both the client's and server's perspectives but does not assess the consumer's perspective on effectiveness.



**Industry Survey:** This tier will deal with a mainly quantitative survey conducted amongst SMEs to assess their agreement with the range of evaluation criteria generated from the initial qualitative work and to evaluate the effectiveness of a DMS from an SME's perspective. Taken together these stages offer a means of assessing both the perceived effectiveness from both client and server sides and thus provides the foundation for relating this to the quantitative data generated through the final tier.



**DMS Log Analysis:** The final tier will be based upon an in-depth examination of the DMS based website (VisitScotland) through consolidation and re-treatment of their server log files. A detailed analysis of the log files can then be undertaken in an attempt to assess the effectiveness of the DMS based website for each of the SMEs. This will be achieved by identifying the respondents to the industry survey and by analysing the activity to their part of the DMS through the log files to establish how effectively the DMS is working for them. The log analysis data for each SME will then be compared with the data extracted from the industry survey for that particular SME to provide an overall picture of the effectiveness of the DMS to each particular SME. The derived methodology and proposed metrics will be validated through the triangulation of the results from each of the three tiers of the process.



## Expected Results

- ⊙ A comprehensive weighted set of criteria for evaluating the effectiveness of a DMS.
- ⊙ An in-depth analysis of the effectiveness of a core DMS based website.
- ⊙ A robust and tested methodology for both Indirect and Direct conversion ratios.
- ⊙ An expert system that will aid hotel SMEs in the evaluation and management of their distribution channels.
- ⊙ Recommendations on the improvement of DMS effectiveness.

## Completion Stages

Completion Stages	Duration	2003				2004				2005				2006				2007		
		Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3			
- <b>PhD. Process</b>	<b>60 mons</b>	[Timeline bar from Q4 2003 to Q3 2007]																		
Literature Review	4 mons	[Timeline bar from Q1 2004 to Q2 2004]																		
- <b>PhD Planning</b>	<b>7.25 mons</b>	[Timeline bar from Q1 2004 to Q3 2004]																		
Topic Selection	1 mon	[Timeline bar from Q1 2004 to Q1 2004]																		
+ <b>Devise Conceptual Framework</b>	<b>5.75 mons</b>	[Timeline bar from Q2 2004 to Q2 2005]																		
+ <b>Decide Research Strategy</b>	<b>0.5 mons</b>	[Timeline bar from Q2 2004 to Q2 2004]																		
- <b>Primary Research</b>	<b>43.75 mons</b>	[Timeline bar from Q3 2004 to Q3 2006]																		
+ <b>Delphi Study</b>	<b>14 mons</b>	[Timeline bar from Q3 2004 to Q1 2005]																		
+ <b>Industry Survey</b>	<b>14.75 mons</b>	[Timeline bar from Q4 2004 to Q2 2005]																		
+ <b>Log Server Analysis</b>	<b>11 mons</b>	[Timeline bar from Q1 2005 to Q2 2006]																		
Cross Tabulate Data	4 mons	[Timeline bar from Q3 2006 to Q4 2006]																		
Finish Primary Research	0 mins	[Timeline bar from Q3 2006 to Q3 2006]																		
PhD Write Up	9 mons	[Timeline bar from Q4 2006 to Q3 2007]																		
PhD Submission	0 mins	[Timeline bar from Q3 2007 to Q3 2007]																		

# Destination Management Systems - Electronic Distribution Effectiveness amongst Small and Medium-sized Enterprises in the hotel sector.



Dublin Institute of Technology

Student: Patrick Horan  
Supervisor: Prof. Andrew Frew



Queen Margaret University College

## References

- Bloch, M. and A. Segev (1996). The Impact of Electronic Commerce on the Travel Industry, <http://haas.berkeley.edu/~citm>.
- Buhalis, D. (1994). Information and Telecommunication Technologies as a Strategic Tool for Small and Medium Tourism Enterprises in the Contemporary Business Environment. *Tourism: The State of the Art*. A. V. Seaton. London, Chichester.
- Buhalis, D. and M. C. Licata (2002). "The Future eTourism Intermediaries." *Tourism Management* 23(3): 207-220.
- Buhalis, D. and H. Main (1998). "Information Technology in peripheral small and medium hospitality enterprises: strategic analysis and critical factors." *International Journal of Contemporary Hospitality Management* 10(5): 198-202.
- Bush, M. (2000). "Internet Will Not Replace Traditional Reservation Systems." *Hotel and Motel Management* 215(17): 31.
- Castleberry, J. A., C. Hempell, et al. (1998). "The Battle for Electronic Shelf Space on the Global Distribution Network." *Hospitality and Leisure Executive Report* 5(Spring): 19-24.
- Frew, A.J. and O'Connor, P., (1998) *A Comparative Examination of the Implementation of Destination Marketing System Strategies: Scotland and Ireland*, in Information and Communications Technologies in Tourism, D. Buhalis, A.M. Tjoa, and J. Jafari, Editors. 1998, Springer-Verlag: Vienna, Austria. p. 258-267.
- Horan, P. and C. MacDonaill (1996). *The World is What You Make It - An Application of Virtual Reality to the Tourism Industry*. Hospitality Information Technology Association Worldwide Conference, Edinburgh, Hospitality Information Technology Association.
- Muqbil, I. (1998). "Ten Hospitality Trends for the Tourism and Hospitality Industry." *Travel Impact Newswire*.
- O'Connor, P. M. (2001). Developing an Evaluation Model for Hotel Electronic Channels of Distribution. *Tourism & Hospitality*. Edinburgh, Queen Margaret University College.
- Peterson, K. I. (1994). Qualitative Research Methods for the Travel and Tourism Industry. *Travel, Tourism and Hospitality Research*. J. R. Ritchie and C. R. Goeldner. New York, John Wiley: Ch 41.
- Starkov, M. (2002). Brand Erosion or How Not to Market Your Hotel on the Web [On-Line] URL:[http://www.hotel-online.com/News/PR2002\\_2nd/Apr02\\_BrandErosion.html](http://www.hotel-online.com/News/PR2002_2nd/Apr02_BrandErosion.html), Hotel Online.
- Veal, A. J. (1997). *Research methods for Leisure and Tourism - A Practical Guide*. London, Pitman Publishing.
- Weill, P. (1991). "The Information Technology Payoff: implications for investment appraisal." *Australian Accounting Review* 2(11).
- WTO (1997). *Tourism - 2020 Vision*. World Tourism Organisation, Madrid.



DUBLIN INSTITUTE  
of TECHNOLOGY

*Institiúid Teicneolaíochta Bhaile Átha Cliath*

Dublin Institute of Technology  
Cathal Brugha St.  
Dublin 1, Ireland

Tel: +353-1-402 4397  
Fax: +353-1-402 4496  
Mobile: 087 2323840  
Email: [patrick.horan@dit.ie](mailto:patrick.horan@dit.ie)

PATRICK HORAN  
*Lecturer in Hospitality Information Technology*



<http://trc.dit.ie/padman/>