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## Editorial

# Ten years of revenue management

*Journal of Revenue and Pricing Management* (2011) 10, 1–7. doi:10.1057/rpm.2010.53

Launching a new journal in 2002 post 9/11, when the main readers were members of the airline industry, may not have seemed like a good idea at the time. I remember the Publishing Editor, Daryn Moody, of Henry Stewart saying at the time, ‘if we can increase the subscriptions from 4 to 10 in the next few weeks, we will publish the first issue!’ Well, that seems a long time ago and the journal now has more than four subscribers. The *Journal of Revenue & Pricing Management* has set out to cover the diversity and depth associated with pricing, whether it is Operational Research mathematical models, implementation issues or applications in new industries. The journal has covered those subjects with practical case studies to cutting-edge research from some of the leading authorities on the subject. This journal would not have started if it had not been for people like Paul Rose, Peter Belobaba, Warren Lieberman, Steve Pinchuk, Stefan Poelt, Montgomery Blair, Andy Boyd, Sherri Kimes, Georgia Perikas, Larry Weatherford, Ben Vinod, Mark Shafer and Una McMahon-Beattie, who supported the journal in the first year with content and publicity.

Over the past 10 years, several factors have changed the models and approaches to Revenue Management (RM) and Pricing, particularly the Internet and the demise of traditional carriers and the subsequent rise of budget carriers. The Internet has changed the distribution channel forever, putting the customer in control and pricing transparency is at the forefront. No longer do you visit a travel agent to book an airline ticket. The explosion of budget airlines across the world has meant more competition that has driven down prices of airline tickets across the world in real terms.

The past 10 years has transformed the customer’s experience of making airline reservations, consumers live in an instant society where access to the Internet is 24/7, a low-cost economy where consumers have traded down. To a certain extent, travel has become more of a commodity rather than an experience. The first airline passengers would probably have flown first class, experienced a hotel environment of butlers, caviar and fine wines and men would have worn a suit and a tie. How times have changed.

Business must know its customers, specifically you need to know how much your customers will pay for a product or service. This is not just about discounting but knowing your market segment, how much those customers will pay, when they will purchase and how they will purchase. Ever since Ken Littlewood published his seminal paper on RM in 1972 (republished in the journal, see Littlewood, 2005) in which he describes the early work on applying mathematical models in the airline industry through methods of forecasting and revenue control, hence introducing the concept of maximizing the revenue received on a particular flight rather than maximizing the number of passengers carried. It was this article, that established the foundations of many of the yield control models of today. Peter Belobaba’s (1987) PhD thesis, *Air Travel Demand and Airline Seat Management* is also noted as a defining moment as superior management science models and greater accessibility to technology became mainstream. Today, RM has spawned across many industries and applications, all with one defining centralism – the management of a time slot. Whether it is a journey on a plane between

New York and Los Angeles on a specific date, advertising slots during the Super Bowl, a hotel bed night on the 20th August 2010, a round of golf at 9.30am or wedding banquet on a Saturday. Time is the premium and what customers will pay; given time variable demand and a perishable inventory.

The *Journal of Revenue & Pricing Management* is not an elitist journal only aimed at the top academics in the world, but a journal that overarches over practice and theory. The journal has set only to work with a number of organizations over the past 10 years, notably INFORMS RM and Pricing Section as the journal is an associated publication of the section to promote the causes of Revenue Management, present the best science, become the medium for thought leadership and new ideas. The journal publishes the best papers from the sections annual conference in a special edition each year. These papers represent some of the best cutting edge thinking within our field. Similar partnerships have occurred with AGIFORS and European Pricing Platform. The journal has championed a number of special topics, whether it is distribution channels and technology and worked with leading thinkers both in industry and academia. Therefore, what do the readers, industry, academia and researchers think of the journal's contribution to the practice, science and art of RM and science over the past 10 years?

## WHAT EVERYONE THINKS!

The articles published in the journal are great examples of the breadth of RM and pricing, with application areas varying from airlines and hotels to health care and telecommunications. There is no other resource that has accomplished this in the last decade. (Dr Itir Karaesme-Aydin, Assistant Professor of Operations Management, Kogod School of Business, American University, USA)

The *Journal of Revenue Management and Pricing* continues to serve as an efficient forum for communicating new ideas and practices within and across industries. This type of unbiased exchange is key to the continued growth, enhancement, and evolution of the science and practice of pricing and revenue management. (Mark Shafer, Senior Vice President – Revenue Management and Analytics, Walt Disney Parks and Resorts, USA)

I would like to congratulate you on the 10th anniversary of the *Journal of Pricing and Revenue Management*. As an academic, I use the Journal both as a source for the latest thinking on pricing and RM and as a source of selected readings for my students. I am able to use the journal for both because it contains a nice mixture of theoretical and practitioner based articles. You will also be pleased to know that no matter what conference I attend, it is rare that I do not hear citations from the *JPRM*. Again, congratulations! (Prof. Stowe Shoemaker, Donald Hubbs Professorship, Conrad N. Hilton College of Hotel and Restaurant Management, University of Houston, USA)

*JRPM* has over the years contributed significantly to the Revenue Management and Pricing excellence. The journal has provided a strong link between Academia and the Industry and has today become the primary forum for sharing ideas within the RM community. From an airline perspective, the journal is invaluable, with its many and highly relevant articles. (Dr Thomas Fiig, Chief Scientist, Scandinavian Airlines System, Denmark)

The *Journal of Pricing and Revenue Management* has grown to be an important and visible outlet for high



quality academic and practitioner research in the area of revenue management. It places particular emphasis on the interface between theory and practice, cultivating and promoting new application areas, motivating new methodological questions, as well as publishing in depth overviews of the use of revenue management and quantitative pricing tools in different industries. The Journal is an important part of this vibrant area of academic and economic activity. (Prof. Costis Maglaras, David and Lyn Silfen Professor of Business, Graduate School of Business, Columbia University, USA)

*JRPM* has been a fantastic resource for researchers and students. I regularly assign readings from *JRPM* to my revenue management classes and they've found it to be insightful and useful. Before *JRPM* came along, it was very difficult to find these sorts of articles; now, the variety and quality of articles has made it really quite wonderful. (Prof Sherri Kimes, Singapore Tourism Board Distinguished Professor of Asian Hospitality Management Cornell-Nanyang Institute of Hospitality Management, Cornell University, USA)

At the risk of being misconstrued as arrogant, I will say that the *JRPM* has empowered us on the front lines in industry to be Prometheus! (Montgomery Blair, Director of Decision Technology, Avis Budget Group, USA)

*JRPM* was the first Journal exclusively dedicated to Revenue Management and Pricing. It is Lufthansa's chief source of information for the latest developments in this field. The mixture of research and practice papers encourages the transition of research results into practical implementations. (Dr Stefan Poelt, Head of Revenue Management Tools, Lufthansa, Germany)

During this past decade, the *Journal of Revenue & Pricing Management* has established itself as the premier outlet of academics' and practitioners' articles on pricing and revenue management. This journal has fostered the development of the science of pricing and revenue management. Far from the original booking systems pioneered by the airline industry, the current models of revenue management capture the effects of customer choice, consumer behavior, competition, and strive for breaking the trade-off between profitability and robustness. In addition, the range of applications has exploded beyond the traditional airline and hospitality industries, encompassing today the Internet and B2B services. Such a wide range of innovations would never have taken place without the existence of the *JRPM* journal, which remains the ultimate pricing and revenue management discussion platform between academics and practitioners. (Dr Guillaume Roels, ULCA Anderson School of Management, USA)

I knew the field of revenue management had finally 'arrived' when the *Journal of Pricing and Revenue Management* first appeared in 2002. It was a sign that all the many researchers and practitioners – working often in isolation, from varied disciplinary perspectives on seemingly idiosyncratic industry challenges to produce what, today, we recognize as modern revenue management – that all these people had coalesced into a unified scientific and professional community. (Prof. Garret Van Ryzin, Paul M. Montrone Professor of Private Enterprise, Columbia Business School, Columbia University, USA)

Revenue Management has frequently been referred to – half jokingly and half

seriously – as a ‘black art’, through which incredibly smart people do back-room manipulations to come up with highly complicated pricing that the public doesn’t understand. It is the *Journal of Revenue and Pricing Management* to which these smart people come to share their knowledge and latest techniques, and to learn how to make these manipulations work for the benefit of their organizations and for the efficient operation of airlines, hotels, and other purveyors of the RM ‘black art’. (Scott Nason, ex-Vice President, American Airlines, USA)

*The Journal of Revenue and Pricing Management* is one of the few journals concerned about scientific rigour and yet ensuring that the knowledge is also accessible to practitioners. It has been instrumental in sharing RM and pricing knowledge across the globe and bridging the divide between practice and academic research. (Prof. Irene Ng, Exeter University, UK)

The Journal is a great source of information for people working in revenue management and pricing. It helps improving their understanding of the principles and even more important is a great platform for exchanging new ideas between experts and across industries. (Dieter Westermann, Senior Manager, Revenue Management, Qatar Airways, Qatar)

*The Journal of Revenue and Pricing Management* has allowed practitioners, scientists and academics to interact in a community where the art and science of revenue management and pricing are openly discussed and improved. Typically these people are isolated inside their worlds where they are the only people in their organization with expertise in these

disciplines. The journal has given them a well known and globally distributed platform to exchange ideas and further the art and science of revenue management and pricing. As the utilization and impacts of these disciplines continue to expand, so will the importance, influence and need for the journal. (Steven Pinchuk, President & Founder, Profit Optimization Strategies, USA)

Over the past decade, Ian Yeoman has shown tremendous passion and dedication to launch a remarkable journal dedicated to the science and practice of pricing and revenue management. A landmark achievement indeed. (Dr Ben Vinod, Vice President and Chief Scientist, Sabre Holdings, USA)

*The Journal of Pricing and Revenue Management* has brought together the best thinkers from theory and practice to develop new theoretical approaches and ensure the applicability in companies around the world. (Prof. Dr Oliver Roll, University of Applied Sciences, Germany)

In the last decade, this journal has made a huge contribution to the dissemination of cutting edge research and thinking in the area of Revenue Management. Uniquely it is readable and accessible for both revenue management professionals and academics alike. (Dr Una McMahon-Beattie, Department of Hospitality and Tourism Management, Ulster University, Northern Ireland)

The journal provides the only dedicated focus to Revenue Management including Pricing and Revenue Integrity for all industries either employing this business



discipline, or seeking to utilise it in the future in their particular commercial area. It provides a broad spectrum of pragmatic experiences from practitioners as well as theoretical papers for future developments from academia, providing something for everyone employed in this vital business area. (Paul Rose, Paul Rose Revenue Management Ltd, UK)

## **HISTORY, DEVELOPMENT, PRACTICE, THEORY AND THE FUTURE: ELEVEN CONTRIBUTIONS FROM LEADING THINKERS AND PRACTITIONERS**

Robert Cross and colleagues at Revenue Analytics describe the history and development of RM identifying the major milestones, the first successes in travel and transport and subsequent progression of the discipline. The authors highlight the wonderful story of Bill Marriott at Marriott International, who championed the cause of Yield Management from the airline to the hotel industry. Marriott International had many of the same issues that airlines did: perishable inventory, customers booking in advance, lower cost competition and wide swings with regard to balancing supply and demand and so on. Bill Marriott sought to incorporate Yield Management into the marketing strategy of all Marriott hotels. As 'yield' is an airline term, Marriott and others adopting the practice called the practice RM. The company created a RM organization and invested in automated RM systems, which would provide daily forecasts of demand and make inventory recommendations for each of its 160 000 rooms at its Marriott, Courtyard and Residence Inn brands. They also created 'fenced rate' logic similar to airlines, which would allow them to offer targeted discounts to price sensitive market segments based on demand. The rest is history as they say.

Peter Belobaba, the co-founding editor of this journal describes how the low cost carriers and their simplified fare structures challenged and changed traditional airline RM forecasting and optimization systems. The low cost carrier pricing revolution caused RM systems to falter and threatened decades of scientific research and investment by airlines. But this change, gave the research community a jolt in which new ideas and angles emerged to improve forecasting and optimization models by explicitly recognizing that the demand for different fare products is not independent. Following a similar theme Stefan Poelt of Lufthansa, takes a look at the history and evolution of airline RM from a traditional network carrier's point of view and going on to highlight that the traditional models of RM has changed as the future is about integration with pricing. Price optimization including competitive aspects has been studied in other industries, for example, retail for many years and researchers will bring both streams together.

Catherine Cleophas and Michael Frank of Lufthansa consider a range of myths about the topic, for example, whether RM is for mathematicians as research papers (as published in this journal), it often require a PhD in Operations Research. The lay person (for example, the interested airline manager equipped with an MBA) can quickly lose track of the intricacies involved and may find it hard to rate the chances of applying the method described successfully; harder still to quantify the expected earnings from such a move but software, technology and user interfaces change this assumption.

Taking a more radical change, Chris Anderson (Cornell University) and John Wilson (University of Western Ontario) address a new topic of 'Name Your Own Price' auctions where the bidder bids on an item and the seller immediately decides on whether or not to accept the bid. The analytical modelling of such auctions is still in its infancy. A number of papers have appeared over the past few years

making various assumptions about buyers and sellers. The intent of this paper is to carefully delineate the various assumptions and modeling approaches and consequently, suggest avenues for further research. Warren Lieberman (a founding champion of this journal) highlights some of the lessons learned in the past 10 years, for example, have systematic, orderly, and transparent pricing processes. Warren highlights that several well-known companies, including the well-publicized case of Amazon.com, have suffered significantly from customer backlash when it was suspected and communicated that prices were set in ways that were not fully visible to customers. Conversely, when cruise lines adopted a more systematic and easily understood pricing structure in the early 1990s, demand surged and customers, no longer anticipating price reductions nearer to sailing date, began to book earlier, reversing a problem that had begun to emerge as an issue for many cruise lines. Una McMahon-Beattie, (the Practice Papers Editor for the past 10 years and my partner in crime) comes to a similar conclusion as Warren Lieberman that trust, fairness and justice are cornerstones of any business strategy in relation to RM.

Ian Yeoman (Me) pursues an agenda of luxury and its relationship to premium pricing. As society becomes more wealthy the definition of luxury changes, making luxury more accessible to the masses but creating difficulty for luxury products to defend that exclusivity. Over the last decade, the concept of luxury has transformed itself from materialism to time and aspiration, making luxury more reachable and democratized. Smaller, affordable luxuries and premiumized products are strengthening their appeal as consumers continue to satisfy their need for regular treats and indulgences in their lives. I note a number of changing behaviours in the luxury market most recently including, quality, luxury for rent, mercurial consumption, exclusivity and new expressions.

Steve Pinchuk proposes in a changing economic environment, the way business

understand and make predictions is changing the smallest entity of consumer behaviour. This is about predicting individual's lifetime behaviour patterns, assure that all interactions with individuals are focused on their predicted lifecycles and manage the numerous market equilibriums. Technology guru Ben Vinod of Sabre Holdings has been one of the most prolific contributors to the journal over the past 10 years. Ben's contribution in this edition focuses on future development of online travel. The online landscape is highly competitive with online travel agencies, supplier websites, tour operators, consolidators, meta search and corporate. The online travel agencies that have witnessed the highest growth rates are those selling simpler products, such as the hotel only sites, but this will change as market demand grows to address all components of travel with its associated complexity. The future success of the online travel agencies and supplier websites will depend on their ability to operate with a lower cost model, create targeted offers and services based on a deep understanding of local trends and consumer behaviour.

Sherri Kimes of Cornell University surveyed 487 RM professionals and found the future was going to be much more strategic in nature and will be more strongly driven by technology in which function space will be the new frontier. As technology evolves, analytical pricing models and social networking/mobile technology were going to have a major impact on the future. Survey respondents think that the organization of the RM function is going to become more centralized and that the skills required for a successful Revenue Manager are going to be a combination of analytical and communication abilities. As a consequence, performance measurement will move to total revenue or gross operating profit rather than by RevPAR.

Therefore, 11 papers devoted to this issue that discuss RM's history, development and change. But that is not the end of the story.



## OTHER PAPERS

Seonah Lee's *et al* doctoral study uses booking data from 28 US hotels to investigate the validity of two key assumptions in hotel RM: (1) customers who book later are willing to pay higher rates than customers who book earlier; and (2) demand is stronger during the week than on the weekend. On the basis of these findings, Seonah Lee provides comprehensive evidence for segmenting transient demand and setting weekday versus weekend pricing. Tobias von Martens and Andreas Hilbert of Desden University of Technology present a research approach to RM based on customer value. The authors consider customer value when controlling the availability or price of booking classes concluding that service providers should select customer characteristics relevant for decisions on the availability or price of booking classes according to the business environment and should formulate the interaction process appropriately in order to provide indicators for predicting such customer characteristics. Furthermore, measures of market communication must be applied in order to reduce or justify observable customer differentiation and therefore, to reduce perceptions of unfairness as well as undesirable strategic behaviour on the

part of customers. To conclude Sally Raid of Victoria University of Wellington reviews a series of books on luxury including *Luxury World: The Past, Present and Future of Luxury Brands* by Mark Tungate and *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* by Jean-Noël Kapferer and Vincent Bastien.

Over the past 10 years, there has been so many people to thank, but most of all a big thank you to all those back room staff at Palgrave and Henry Stewart who have provided support and encouragement. Thanks for having faith in us all.

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