

TEACHING A NEW DISCIPLINE: REVENUE MANAGEMENT

Gabor Forgacs
Ted Rogers School of Hospitality and Tourism Management, Ryerson University
Toronto, Ontario, Canada
gforgacs@ryerson.ca

David W. Martin
Ted Rogers School of Hospitality and Tourism Management, Ryerson University
Toronto, Ontario, Canada
dmartin@ryerson.ca

and
Bernard McEvoy
Ted Rogers School of Hospitality and Tourism Management, Ryerson University
Toronto, Ontario, Canada
bmcevoy@ryerson.ca

ABSTRACT

This paper discusses the most relevant issues of teaching the new discipline: Revenue Management. A balanced and structured framework is preferred in order to enable students the mastery of this complex subject. There are resources in the form of textbooks, research articles and publications that provide the theoretical underpinning for teaching faculty who would be prepared to teach the given subject. The advanced multidisciplinary nature of this new discipline poses challenges while narrowing the number of potential educators who feel comfortable in all the disciplines involved that comprise the building blocks for the successful delivery of the course material.

Key words: curriculum, management education, new discipline, revenue management, simulation.

INTRODUCTION

A Brief Overview of Revenue Management Training and Education

Training

Discussing the most relevant aspects of revenue management teaching, one must point out the differences between training and education. Training for specific job skills is traditionally driven by the needs of the job market. New training courses tend to be developed with the emergence of new niche fields. Revenue management is a field that has emerged as a mission-critical new discipline since the early 1990s, as airline and hospitality industry managers wanted to increase profits not just revenue (Cullen, Helsel 2006).

Training for specific jobs has a very important mandate in order to equip employees with skills, competencies and knowledge to become employable in a given field or improve the performance of the existing labor force. Some of the examples for specialized revenue management training can be found at a number of trade organizations that responded to industry demands by developing revenue management certificate training courses. Revenue management training courses for the hospitality and tourism industries are offered by the following organizations:

- IATA (International Air Transport Association);
- HSMIAI (Hospitality Sales and Marketing Association International); and
- AHLA-EI (American Hotel & Lodging Educational Institute).

All of the above organizations have developed revenue management training programs and the certificates offered are recognized in their respective fields of the accommodation or airline industries.

Another trend is identifiable in the area of revenue management training: vendors that supply related consulting and software products were also interested in filling the perceived void in training for the new skills of revenue maximization. This training would complement their value proposition when selling automated solutions in the form of software suites. Training programs by vendors in the form of one-off webinars or whole lecture series helped enhance their credibility and also developed new revenue streams for their business. A collection of industry leading firms offering on-demand training, live webinars, white papers, podcasts and other creatively delivered content to their clientele is a select sample of this industry practice:

- IDEaS Revenue Management Solutions (Integrated Decisions and Systems Inc.), a SAS company (Software as a Service) under Tools & Resources <http://www.ideas.com/index.php/software-services/services/> [Accessed on Jan/13/2012, 14:20]
- EasyRMS http://www.easyrms.com/news/12_july_2010.php [Accessed on Jan/13/2012, 14:42]
- Buckhiester Management offer on-site training and development in their “REVolution” © toolkit. http://www.buckhiester.com/onsite_training.htm [Accessed on Jan/13/2012, 14:31]
- Xotels offers hotel management training courses and revenue management is amongst them. <http://www.xotels.com/en/revenue-management-training> [Accessed on Jan/13/2012, 15:38]

Education

The educational field has traditionally somewhat slower reaction time to changing needs in industry practice than the training field. The time and resource intensive nature of the accumulation of new knowledge through sound research and the development of expertise are some of the possible key reasons behind the time lag. Organizational requirements are also important to be met when new curriculum items are being considered for introduction. One way to incorporate the emerging new discipline of revenue management into existing courses was to simply develop modules in related courses of marketing, finance or lodging management. This way the college or university in question was able to offer at least some fundamentals regarding a fast-paced, new niche that generated considerable interest in industry publications. It has been noted that only a few programs offer Revenue Management as its one discipline, the majority include material on revenue management related topics in courses such as finance, accounting, cost control, and marketing (Camillo 2011).

The launch of subject specific journals in revenue management were the result of the increased significance and heightened interest: The International Journal of Revenue Management (by ISSN) and the Journal of Pricing and Revenue Management (by Palgrave MacMillan) were successfully launched and contributed significantly to the growing body of research related to all aspects of revenue management. A noteworthy lack of one topic is nevertheless intriguing: there is no research published to date in any of the above journals on the topic of revenue management education.

The textbook publishers were able to gradually find the resources necessary for the publication of revenue management books during the last 15 years. There have been six revenue management books published that could be considered for educational purposes, in chronological order:

- Revenue Management. Hard-core Tactics for Market Domination. Robert G. Cross, 1997. Broadway Books.
- Yield Management. Strategies for the Service Industries. Anthony Ingold, Una McMahon-Bettie and Ian Yeoman. 2000. Continuum.
- Revenue Management and Pricing. Case Studies and Applications. Ian Yeoman and Una McMahon-Bettie, 2004. Thomson Learning.
- An Introduction to Revenue Management for the Hospitality Industry. Kimberly A. Trantner, Trevor Stuart-Hill and Juston Parker, 2009. Pearson Prentice Hall.
- Revenue Management. Maximizing Revenue in Hospitality Operations. Gabor Forgacs, 2010. American Hotel & Lodging Educational Institute.

- Revenue Management for the Hospitality Industry. David K. Hayes and Allisha A. Miller, 2011. Wiley and Sons Inc.

DISCUSSION

Balanced Approach to Teaching Revenue Management

At the Ted Rogers School of Hospitality and Tourism Management, Ryerson University the course “Revenue Management for Hospitality and Tourism” has been delivered at the undergraduate level for senior (fourth-year) students of a Bachelor of Commerce program since 1998. The course consists of two modules: one module discusses the theory and hospitality industry applications of revenue management; the other module provides a management simulation program for the students. These two modules offer a balance of theory and practice as students have an opportunity to use case analysis in one module and the management of a virtual hotel or restaurant in the other module to apply the theory of Revenue Management.

Teaching the Theory and Hospitality Industry Application of Revenue Management

Students’ learning is facilitated by relying on a logical framework that has been developed to discussing the subject material. This introduction lays the foundations for understanding the definition and the history of Revenue Management at the outset. This is followed by discussing performance measurement using lodging industry examples. The internal measures that involve property level data serve as a start for this discussion. In addition, external metrics are discussed to help students understand the concepts of fair market share, competitive set and market penetration in the context of revenue maximization. Measurable outcomes are crucial for future revenue managers in order to learn from successes and failures.

The next component is the discussion of revenue management tactics, which involve short-term measures that intend to generate an increase in cash flow. Topics include forecasting, tactical rate management, duration control, capacity management and displacement analysis. The understanding of tactical concepts will be the foundation, upon which the discussion of strategic revenue management can be built later in the course.

The key to sustainable competitive advantages is the mastery of the next segment: strategic revenue management. Topics include demand generation strategies that go above and beyond the management of manifested demand and applied marketing strategies for segmentation, targeting and positioning, coupled with customer relations management in the context of revenue maximization. Other strategic measures include revenue streams management, market mix manipulation, strategic packaging, strategic pricing and the management of distribution channels with special emphasis on electronic distribution business models.

The theory module also discusses revenue management automation and the organizational aspects of this new discipline by describing revenue management’s place within a given organisation. The module concludes with the discussion of selected cases from a variety of businesses that include airline, hotel, sports stadium, charter boat, restaurants, function space, and attraction/theme park revenue management. These case discussions offer students an opportunity for applying the acquired theory concepts, problem-solve, evaluate, even critique the measures described in the given cases, plus make recommendations.

Students are required to write a written project that profiles an existing hospitality or tourism operation and analyses its revenue management practices. Students may elect to develop a spreadsheet-based displacement analysis tool from scratch that could be used by any hotel regardless of capacity, location, pricing level or market position. The spreadsheet must include formulas, linked cells, scenario analysis capabilities for multiple revenue streams and quantify the outcome of a booking or rejection decision by comparing net revenue differentials of group booking scenarios.

In the second module of the course students are required to manage a virtual hotel or restaurant while implementing while implementing revenue management principles and techniques.

The Simulation Approach to Revenue Management Teaching

The emergence of revenue management as a multidisciplinary management technique over the last decade is not surprising when it is placed in the context of the mechanics and objectives of financial statement development. (Figure1). Revenue is the result of assets being deliberately used up as costs leading to profit or net income, as long as the revenue generated exceeds the costs incurred. The profit or net income is then closed out to retained earnings at the end of the fiscal year. These retained earnings can be paid out to shareholders as dividends or reinvested in the assets of the business. The objective of reinvesting these retained earnings is to generate more profit for the shareholders. So the process is repeated year after year. The emphasis in business management and the teaching of this subject must then revolve around the relationship between both asset and revenue management.

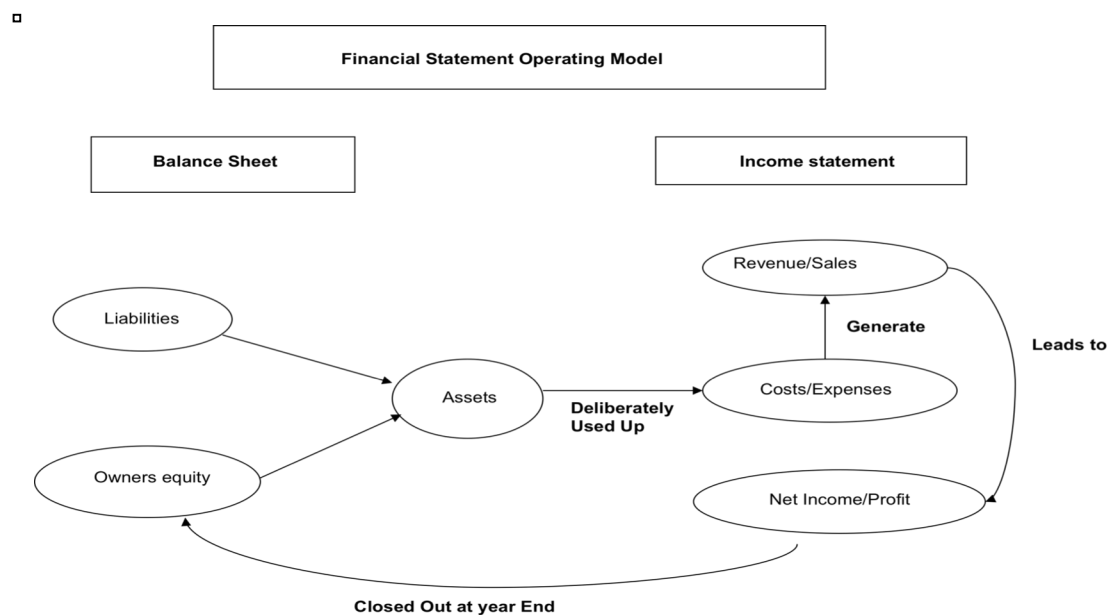


Figure 1: **Financial Statement Operating Model**

In the fourth year capstone course Revenue Management for Hospitality and Tourism, which is a component in the Bachelor of Commerce degree program at the Ted Rogers School of Hospitality and Tourism Management, Ryerson University, these fundamental relationships are recognised. The nature of the discipline of Revenue Management has made it more challenging to offer a balanced and structured framework within which the students can learn. There has long been a perception that the traditional heavy use of lecture and case study modes of teaching in undergraduate programs has caused application problems for students (Chapman & Sorge, 1999; O'Brien & Deans, 1995), and the perception of an applications gap in the education of students with a particular industry focus, such as hospitality is also well documented (Chapman & Sorge, 1999).

A total enterprise simulation module when combined with a specific revenue management theory and application module proves effective in delivering and facilitating the mastery of the knowledge base needed to understand these concepts. The multidisciplinary nature of the new discipline of Revenue Management makes it more of a comprehensive management course ideally suited to the application of a simulated environment. Total enterprise simulations (TES) are by their very nature multidimensional and comprehensive.

Simulations that deal with the entire organization, provide a balanced number of decision variables in marketing, production (operations) and finance, and thus require the strategic integration of several subunits for organizational performance. These are termed “total enterprise” or “top management games”. These simulations use manuals, computer scoring, and print outs to convey the nature of the environments in which participants operate (Keys & Wolfe, 1990). Since a business simulation is an abstraction of reality, the degree of abstraction

and theoretical sophistication contained in the simulation's algorithms should have an effect on the learning results that can be derived from business simulation (game) play. The degree of functional breadth or environmental scope contained in the simulation should also have an effect on learning outcomes (Keys & Wolfe, 1990).

Total enterprise simulations emphasize the application of concepts in an "action-oriented" approach. Participants/students have to make decisions over a number of iterations composed of simulated weeks, months and years. They analyze situations, identify problems and opportunities, make decisions and implement them. The rapid feedback on the value of these decisions, together with the motivating nature of the competitive situation, provides the context and the means for an effective learning experience. The objective of the simulation is to develop skills to effectively apply concepts through making decisions and taking appropriate courses of action. It complements other pedagogical approaches that focus simply on the transmission of knowledge as an objective (Neider, 1981). Simulations therefore provide a natural setting to analyze decision-making processes which are crucial in the application of revenue management concepts and techniques.

The current literature suggest that for a total enterprise simulation (TES) to be an effective learning tool it must be internally valid - students/participants achieving desired learning; externally valid - the generalization of learning applied to the real world and the impact of the simulation experience on the students/participant's career (Dickinson & Faria, 1994; Dickinson, Whiteley, & Faria, 1990; Faria & Wellington, 2004b; Whiteley, Ledue, & Dawson, 2004; Wolfe & Jackson, 1989; Norris & Snyder, 1980; Wolfe & Roberts, 1986, 1993).

According to Stainton, Johnson and Borodzicz (2010) "The educational validity of a business gaming simulation will greatly depend on the quality of model design and implementation" (p.717). Their paper combined literature on learning, simulation design and research methods to formulate a methodology that assesses the educational validity of TES. Their framework was based on three propositions that students/participants can: (i) learn business management from the TES, (ii) relate the business simulation to the real-world business environment, (iii) understand the real-world business issues from the simulation. McEvoy & Martin (2011) evaluated the educational validity of the simulation for profitable restaurant operations (PRO Simulation) using the benchmarks of Representation, Content and Implementation as recommended by Stainton, Johnson and Borodzicz (2010). To assess its educational validity the results of several post course completion surveys of simulation participants were used. The results suggest that the simulation seems to have internal educational validity.

Simulation methodology is focused on the process of student learning and not on the students' individual decisions. Washbush and Gosen (1998) discovered that players who made bad decisions and performed poorly at the beginning of the simulation, became very skilled and knowledgeable of successful business practices as they conscientiously played the game and worked to correct their earlier bad decisions. This would not be a possible outcome for teaching methodologies that did not allow the student to work through their decision errors. In the research of Martin and McEvoy (2001, 2003) participants/students felt strongly that simulations provided a good hands-on learning experience, were challenging and dynamic, demonstrated their understanding of strategic thinking and provided a good test of decision making and problem solving ability. They also indicated the simulations were most effective as a teaching vehicle and as a test of their analytical thinking ability. These are the crucial skills needed in the successful application of revenue management techniques.

The ever-increasing changing face of the business environment has made flexibility a necessity (Heifetz & Laurie, 1997; Lainema & Lainema, 2007). Simulations can offer an approach to problem solving or strategy formulations through a systemic view where a given end state can be reached by many potential means. They provide a unique team approach to learning. This team approach allows for different perspectives and solution alternatives while putting emphasis upon active application of knowledge or skills to a practical problem and prevents the overshadowing effect of one person's perspective (Kolb, 1984; Lainema & Lainema, 2007). Revenue Management is a systematic approach to maximizing profitability with an inherent team approach to provide and interpret data from various departments as decisions are made to develop and execute

the organization's revenue management strategy. In this regard simulations are proving to be an effective tool in the modern teaching of Revenue Management.

CONCLUSION

Revenue Management is a new emerging discipline that became mission critical for organizational success for business that offer a perishable product, work in a fixed capacity environment, face seasonal fluctuations in demand and most of their operational costs are fixed. These businesses are exemplified by lodging, restaurant, aviation, cruise, spa, transportation, broadcast and entertainment industries among others. The key to sustained profitability for businesses in these industries is their ability to maximize revenue. Future managers need to be educated in Revenue Management in order to be successful in highly competitive environments of the above industries. The educational needs are complex for the successful delivery of Revenue Management courses and a balanced approach is suggested that helps learners to master the theoretical components of the subject in a logical framework and also offers an opportunity for the application of learned concepts in a Total Enterprise Simulation setting.

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