

# The Systematic Study of Gaming Operations

*Andrew MacDonald  
William R. Eadington, Ph.D.*

“Bill Eadington’s efforts to build a sound foundation for public policy decisions on commercial gaming have been pioneering, tireless, and immensely fruitful. His data-driven approach to the study of casinos’ effects on communities and economies has contributed immeasurably to its growth and standing, and his penetrating analyses of the business of casino gaming have significantly improved how we conduct it.

As a recovering academic and fellow dismal scientist, I know that scholars like Bill are rare: his effectiveness in breaking down traditional academic silos; his successful application of academic research to inform complex and controversial public policy questions; and his unimpeachable “speak where the data speak, be silent where the data are silent” disposition provide models for all scholars to emulate – regardless their chosen fields of study. That Bill chose the commercial gaming industry as the focus of his energy and insights is, for all of us, a stroke of enormous good luck.”

--Gary Loveman, CEO, Caesars Entertainment

In spite of the phenomenal spread of legal casino gaming to virtually every major country in the world since the 1960s, there has been relatively little development in the “casino management science” literature that would guide major gaming operations in exploiting available opportunities and avoiding the pitfalls of political, legal, or public relations fiascos that casinos seem to find, often without even trying very hard. The casino industry is different than other industries, insofar as they confront a unique legacy of illegal status in most jurisdictions prior to the 1960s; a history of involvement (perceived and sometimes real) with organized crime and of scandals involving bribes, kick-backs, and licentious politicians; and general concerns over the unintended negative consequences associated with the presence of gambling in society. However, many of the new generation of casino management, especially those who entered the industry with MBA credentials since the 1980s, seemed unaware of the nuances that distinguished casinos from, say, the hotel, airline, or insurance industries, that their academic training had more or less prepared them for.

The need for documentation of casino management practices and processes was partially met by the development of an active trade press from the 1980s onward<sup>3</sup>, as well as by a few textbooks<sup>4</sup> that laid out fundamental principles that would be useful

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<sup>1</sup> *Casino Journal*, *Casino Player*, and *International Gaming and Wagering Magazine* were among the pioneers in this area, and *Global Gaming Business Magazine*, *Casino Management*, and *Casino Enterprise* are among the modern examples of the casino trade press.

<sup>2</sup> See, for example, Kilby, Fox, and Lucas, *Casino Operations Management*, Greenlees, *Casino Accounting and Financial Management*, and Hashimoto, *Casino Management, A Strategic Approach*.

for beginning casino managers and executives as well as college students. Trade publications, relying heavily on interviews with gaming industry executives and with company profiles, provided interesting anecdotes, examples, and success stories, but often lacked the kind of conceptual foundation that would substantially benefit senior management. There was a clear need for more rigorous material, especially at a level where it could be incorporated into training processes and academic programs that could influence the level of sophistication of management practices in the casino industry, and the ability of industry leaders to cross-fertilize developing management and marketing concepts from other service industries.

Noting this shortcoming, this article's co-authors began addressing some specific strategic issues confronted by gaming companies who were often confronting new projects in jurisdictions that had just legalized gaming for the first time, or were liberalizing their gaming laws to capture greater economic benefits from this popular but controversial industry.

Professor Eadington's and Mr. MacDonald's professional relationship began in the early 1990s, but blossomed in 1999 when Andrew MacDonald agreed to become the co-moderator of the rigorous ten-day-long annual Executive Development Program sponsored by the University of Nevada, Reno. This partnership followed the untimely passing of the original co-founder and co-moderator of the Program, Nigel Kent-Lemon of the U.K. MacDonald, who had gone through the EDP program in 1992, already had extensive casino management and regulatory experience in Australia, and was well positioned to be the "inside man" to address a wide variety of management and strategic issues typically confronted by casino organizations. Eadington, a lifetime academic and economist, was the "outside man," having built his research and consulting career around a wide variety of public policy oriented studies on the legalization and regulation of casino gaming, as well as on the economic and social impacts associated with casinos and gambling in general. He was also pretty good at encouraging other academics to become seriously involved with gambling research in their own areas of interest. In the context of the Executive Development Program, this complementarity allowed MacDonald and Eadington to present very diversified perspectives on the challenges that confront casino managers and executives, not only in their daily and annual operations, but also in positioning themselves to enter into new gaming markets, to understand cultural differences as they apply to casino customers, employees, and organizations in different parts of the world, and to gain a better understanding of dealing with legislators and regulators in a wide variety of jurisdictions globally.

Beginning in the mid-2000s, MacDonald and Eadington (hereinafter "we") co-authored a series of articles that looked at many different aspects of the gaming industry; all were published in Global Gaming Business Magazine. Each was a seemingly a one-off piece that attempted to address an issue of some relevance at the time. However when looking back at those articles it is clear that we had in fact embarked on a systematic study of gaming operations – though we did not recognize it at the time.

In our first effort, we looked at assessing opportunities in new jurisdictions—a situation that arose mostly as a consequence of significant investment opportunities occurring outside of mature markets. We contended that any gaming company considering such development opportunities in "foreign" jurisdictions—and wanting to

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compare them against other potential investments—should first establish a framework against which the risks and potential rewards of such propositions may be tested. That

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framework should realistically assess the company’s vision, core competencies, expertise, and strategic goals. Beyond that, there is also a need to establish which of all the alternative opportunities the company may – or should – pursue. In other words – picking winners.<sup>3</sup>

The factors influencing this kind of decision-making are geographic, cultural, political, legal, and legislative. The assessment process for “foreign” projects should also evaluate the challenges posed by foreign language (if relevant), the jurisdiction’s foreign investment criteria, the market’s likely competitive dynamics, and expected market demand. When an opportunity emerges that appears to be attractive and generally meets the company’s framework, then much more detailed information gathering and analysis becomes necessary.

Secondly, we looked at developing a highly targeted and focused development approach for gaming projects. That approach was LASER focused – considering factors such as Location, Access, Scale, Entertainment and Range. This effectively considered assessing the process of determining which sites might offer the best prospects for the casino developer. The most desirable characteristics for a site or venue are those with a great location with a dense population surrounding the site and a site that is highly visible and easily accessible. The site should provide the spatial characteristics most suited to the development and preferably provide expansion opportunities for future growth. It is also preferable for the site to be located in an existing business, leisure or entertainment precinct within the region and complement the range of facilities already on offer.<sup>4</sup>

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Next we moved on to painting the right picture for gaming developments. PAINT is an acronym that is useful when considering attributes that need to be promoted and addressed by a gaming company when developing or considering concepts for a new Integrated Resort with casino in a jurisdiction that is considering – or has recently authorized – casino gaming. PAINT stands for Partners, Architecture, Investment, Novelty and Tourism. For many jurisdictions considering gaming legislation for the first time, it is the Tourism element that really makes this worthwhile. If casinos can generate substantial impacts on their regional or national tourism sectors, then the resulting economic benefits will be both direct (new capital investments, job creation, tax revenue generation, spill-over tourism benefits to the rest of the region) and indirect (multiplier effects as higher incomes earned in the casinos and resorts are spent throughout the jurisdiction, leading to increased local affluence and employment.) One can readily point to the experience of Las Vegas, Atlantic City, Biloxi,

Connecticut, and Macao to illustrate the potential strength of these forces.<sup>5</sup>

<sup>3</sup> Gaming opportunities in developing markets: Picking winners. (2006, February). *Global Gaming Business Magazine*.

<sup>4</sup> LASER: Developing a highly targeted and focused development approach. (2006, February). *Global Gaming Business Magazine*.

<sup>5</sup> Painting the right picture for gaming developments in international jurisdictions. (2006, April). *Global Gaming Business Magazine*.

However, without a significant tourism dimension, the picture might become more one of PAIN, and there may only be limited opportunity for the developers or government to promote the real economic benefits from casinos over the perceived and actual social costs, especially in the face of church opposition or an aggressive anti-gaming constituency. Generally speaking, it is easier to sell the concept of legal casinos when most of the clientele will be coming across state, provincial, or national borders.

If, on the other hand, the great majority of customers are locals, then legalization may still be warranted based on freedom of individual choice and import substitution. But clearly, the economic benefits to the region will be markedly less dramatic. This can be seen with most urban casinos (Detroit, Sydney, Montreal), riverboat casinos (Illinois, Indiana, Missouri, Iowa), and other locally oriented casinos (most tribal operations, Colorado, Manitoba, Alberta, provincial casinos in the U.K., etc.)

Having established the jurisdiction, the actual location and convinced the various government authorities, we then moved on to further discuss the merits of Integrated Resort Development.<sup>6</sup> One of the buzzwords that has come into general usage in the world of legal gambling is that of Integrated Resorts (or IRs as they are sometimes known). The notion of Integrated Resorts came into prominence with the bid process for the two Singapore Casino licenses in the 2000s. The Singaporean government as early as 2004 made it quite clear that what they did not want was “just” casinos or resort facilities dominated by their casino operations, so they mandated that only a very small proportion of the actual physical facilities would be for casino utilization. The rest would be support facilities and consumer oriented amenities that would dominate the developments. The Singapore authorities therefore set up a licensing structure that mandated that less than ten percent of the gross floor area would be for casino use – the rest would be for hotels, theaters, convention centers, theme parks, museums, retail, and food and beverage offerings. The scale and mix of amenities and assets as well as their ability to act as catalysts that can transform a region’s economy are what makes such developments distinct from traditional casinos and casino-hotel complexes. Singapore, as an example, when it decided to establish two Integrated Resorts in the city-state, did so on the basis of the potential visitor impacts and the positive effects they would have on Singapore’s economy as well as its image. Singapore’s goal was to triple its tourist numbers over a period of twelve years and to more than triple the resulting economic impact by attracting higher spending and thus higher value visitors to that country. Following their openings in 2010, the two IRs have been critical in achieving that objective and will likely contribute more than fifty percent to Singapore’s long term tourism goal by 2015.

Now having also established a model for casino development, we proceeded to consider various issues that might impact the operation or the competitive dynamic of such developments. One important case study was Macau – where the focus of their analysis was on the scarce resources of licenses, land and labor. As it has since played out – all of these factors have borne serious consideration for the concessionaires and also for those looking on from the outside wanting to get in. They wrote at the time – in 2006 – about Macau being a lesson in scarcity and abundance: the scarcity of licenses, land and labor – against the abundance of a huge market sitting right on Macau’s doorstep.

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<sup>6</sup> “Everything to Everybody: The Case for Integrated Resorts. (2008, November). *Global Gaming Business Magazine*.

The Macau and Chinese governments have demonstrated a willingness to allow Macau to evolve quickly into a showcase for the “one country - two systems” approach with many issues being resolved to ensure success. Macau’s future appeared bright back in mid-2006 and the evolution and transformation of that market has truly been awe inspiring, though many of the suggested problems still lurk in the background.

However many forget that even for Macau there was a period of concern that needed to be addressed, especially in 2008. Most of the concerns of the skeptics at the time stemmed from what we called the C8: Competition, Costs, Constraints (labor and infrastructure), Commission rates, Consumer profiles, Capital crunch, Credit availability, and China. The relative importance of each element in the C8 may differ from observer to observer. However, there was little doubt that these factors were significantly

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contributing to a cautionary sentiment among a growing number of observers regarding Macau’s future. Our point at the time – in regard to the question of “Confidence or Crisis” – was one of confidence in Macau that readily arose from the amazing successes achieved to date. It was and still is a tiny city-state that had quickly transformed from a sleepy backwater to a thriving entertainment center with billions being invested in magnificent resort developments. In our view there was no Crisis yet – but the emerging issues being discussed were not to be over-looked. Our long-term perspective was that the burgeoning Chinese middle-class would likely ensure Macau’s success as long as the partnerships between the participants in Macau’s gaming industry – government, regulators, concessionaires and junket agents – all recognized and appropriately responded to the issues and challenges that would arise.<sup>7</sup>

We then went on to consider operational aspects of developments, framed by a familiar and classic perspective. Jim Collins’ classic business book *Built to Last* was followed up by his 2001 title *Good to Great*, a book in which Mr. Collins examines

the principles of companies that make the leap from being merely good to being great in the long term. Part of the wisdom from that book is embodied in what Mr. Collins calls the hedgehog concept, defined as “a single organizing idea, a basic principle or concept that unifies and guides everything.”<sup>8</sup> It doesn’t matter how complex the world, a hedgehog reduces all challenges and dilemmas to simple—indeed almost simplistic – hedgehog ideas. For a hedgehog, anything that does not somehow relate to the hedgehog idea holds no relevance.”<sup>9</sup>

Establishing a *hedgehog concept* is useful at any level, whether personally or for one’s company. In its own most simplistic form, it is about finding a positioning that you enjoy, a niche you can exploit and are good at and a reason (economic or otherwise) to do so. Remember: “The fox knows many things but the hedgehog knows one big thing!” Using this framework, we looked at case studies in the casino industry that we felt were relevant at the time around those gaming companies that might have been considered as making the transition from *Good to Great*. More importantly, perhaps, we identified a framework that could be used to look at this systematically.

From there we went on to address the nuances of the everyday operational challenges faced in casino management. In the area of Table Game Operations we addressed optimal utilization as part art and part science. In this we concluded that management’s

<sup>7</sup> “Macau – Confidence or Crisis?” *Global Gaming Business Magazine*, June 2008

<sup>8</sup> The hedgehog concept was originally coined by the philosopher Isaiah Berlin, in his essay “The Hedgehog and the Fox.” Berlin in turn had taken the concept from the ancient Greek philosopher Archilochus, who wrote “the fox knows many things, but the hedgehog knows one big thing.”

<sup>9</sup> “Good to Great in Gaming” – Gaming companies doing what they know best by keeping it simple. (2008, June and July). *Global Gaming Business Magazine*, and *Society for the Study of Gambling Newsletter*, Vol. 40, 2007

manipulation of the size, shape, and congregation patterns around higher limit tables and its control over the average number of players per table at various wagering levels should allow the casino to increase profitability. This results in a management exercise that is far better than allowing a lot of potential wagering to go unharvested by being too cautious in controlling the casino floor's labor costs. As it turns out, hands per hour and overall theoretical win are sometimes increased with fewer players per table and greater labor costs, as long as wagering levels are above certain thresholds.<sup>10</sup>

Another area that was explored involved the high volatility game of high-end Baccarat, especially in Macau and Las Vegas, where we proposed the premise that "knowledge would defeat fear." In this case, the volatility inherent in enormous wagers coupled with deep discounts to junket operators or players can be analytically understood with the basic mathematics of probability and statistics, especially the use of the normal distribution, expectations, and standard deviation analysis. There is still much to be concerned with, but volume can overcome volatility in a parallel manner to how knowledge can overcome fear. Casino management still has much to learn in this arena.<sup>11</sup>

We also undertook an effort to demystify gaming by encouraging managers to think of gaming as a commodity or alternatively as an entertainment service. There is much perceived "magic" that can take place in a casino, especially around highly ritualistic table games, but it is important from a scientific management perspective to keep most of those perceptions of magic on the players' side of the table. When the casino managers begin to think in superstitious terms, it is not only foolish; it can be downright expensive to a casino's profitability and its employees' morale.<sup>12</sup>

It is not unusual to hear casino executives speak of gaming as a unique and mysterious product. This notion also manifests itself in how casino managers think about the business of gaming. Unique, mysterious, unlike any other – these are the words often associated with the gaming business that are uttered by long-term casino managers. This is consistent with the belief that the only way to learn the business is to live the business, and see all of the unusual things that can happen on the casino floor and in the executive offices. In reality, though, gaming is just a business like most others: one that can benefit from analysis of its fundamental economic characteristics, and by drawing from, and applying, principles and experiences from other businesses.

This last principle is the one on which all of these articles were really written, and the one that supports the notion that these collective individual works in fact represent a systematic study of gaming operations. As such, they somewhat accidentally formed a genesis for the development of a systematic approach to true scientific management in the casino literature, an important contributor to the future levels of sophistication that will direct the next generations of casino managers throughout the world.

The final article we published in this series looked at the emerging phenomenon of Integrated Resort casinos. Anticipating the success and likely popularity of this

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<sup>10</sup> Table Games Optimal Utilization. (2008, August). *Global Gaming Business Magazine*.

<sup>11</sup> "Knowledge Should Defeat Fear" – Understanding the high stakes game of Baccarat. (2007). *Global Gaming Business Magazine*.

<sup>12</sup> Gaming as a commodity – Thinking of gaming as an entertainment service. (2008, March). *Global Gaming Business Magazine*.

model, we examined its various benefits – social, economic, political, and in terms of public relations – and predicted that this was likely to become the model for choice of casino legalization in the near future, especially with urban casinos, as compared to the destination resort casinos of such locales as Las Vegas, Macau, Biloxi, and Atlantic City.<sup>13</sup> The subsequent unprecedented success of the Singapore IRs, along with recent legalization authorizing an IR development in Boston, as well as efforts undertaken in 2012 and beyond for Integrated Resorts with casinos in Miami and New York City, point to the prescience of this article.

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The series of articles effectively ended when Andrew MacDonald moved from a senior executive position with the Malaysian gaming company Genting to a senior gaming analyst role with Macquarie Capital, an investment bank, in New York. The new position constrained his time to luxuriate in writing thoughtful and provocative articles in casino management science. He subsequently was approached to be Executive Vice President in the Marina Bay Sands casino in Singapore, where he has had the opportunity to run one of the highest-grossing and most profitable casinos in the world from its opening in 2010. MacDonald was subsequently promoted to Senior Vice President and Chief Casino Officer of Las Vegas Sands, the corporate entity that oversees casinos in Las Vegas, Macau, Singapore, and Bethlehem, Pennsylvania. Predictably, free time was diminished considerably with these new roles.

All of the articles in the series were suggested and largely outlined on the initiative of Andrew MacDonald, with Eadington providing the academic touches and a few insights of his own. However, the combination of MacDonald's practical hands-on experience in the field, not to mention his good sense for analytics, along with Eadington's strong grounding in economic, management, and analytical principles, made this a most rewarding and effective partnership. In addition, our decade as a team that co-moderated the Executive Development Program from 1999 to 2009 undoubtedly contributed to our ability to hone in on important strategic and operational issues.

Perhaps in the future, when circumstances permit, the series may indeed continue. We shall see.

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<sup>13</sup> MacDonald, A., & Eadington, W.R. (2008, November). Everything to everybody: The case for integrated resorts. *Global Gaming Business Magazine*.