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Maximizing cash flows in integrated resorts: An exploratory study of the highest and best use of available space

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**MAXIMIZING CASH FLOWS IN INTEGRATED RESORTS:
AN EXPLORATORY STUDY OF THE HIGHEST AND BEST USE OF AVAILABLE SPACE**

By

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Bachelor of Arts in Political Science
LUISS Guido Carli University
2002

A professional paper submitted in partial fulfillment
of the requirements for the

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William F. Harrah College of Hotel Administration**

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ABSTRACT

Maximizing Cash Flows in Integrated Resorts: An Exploratory Study of the Highest and Best Use of Available Space

by

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Through the analysis of the available literature, this exploratory study focuses on the concepts of direct and indirect contribution of amenities to the financial results of Integrated Resorts. In addition, the paper reviews the retail definition of highest and best use and evaluates its possible applications to the hospitality industry. Even if limited in number, studies in the field show that, with the appropriate statistical models, it is possible to estimate the indirect financial contribution of specific amenities to the profitability of Integrated Resorts. Moreover, an unprofitable amenity can justify its presence in an Integrated Resort only by indirectly contributing to the overall profitability of the company. Therefore, this study questions the general assumption, which is not based on empirical evidence, that including certain services in an Integrated Resort indirectly and positively impacts the overall financial performance of a company. Finally, this paper calls for future research on the topic for possible application to executives, developers, investors and customers in the hospitality industry as well as other service industries, including the retail sector.

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Thank you.

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PART I

Introduction

Problem Statement

The hospitality industry has undergone dramatic changes in the past twenty years. Factors such as technological innovations and the ensuing increasing speed of globalization affected many aspects of the service industry as well as the way hotel operators have had to approach the market and their customers.

Through the years, we have seen a move towards more integrated hotel-casino resort offerings. New properties provide a variety of services, including lodging, spas, salons, gaming, nightclubs, shows, restaurants and shops. However, with increasing competition and a global economic crisis, management needs to find new ways to differentiate its service offerings from their competitors and, at the same time, maximize the profits associated with their investments.

Purpose

When striving for profit maximization, one of the most important aspects to take in consideration is the highest and best use of the available space of a hotel-casino property. This paper will analyze previous studies regarding the direct and indirect contribution of specific amenities to the financial results of integrated hotel-casino resorts. With the help of the available literature on the subject, the paper will pay close attention to the indirect contribution of amenities, especially to gaming volumes, and it will question the general assumption that the presence of certain services in a hotel-casino resort indirectly and significantly affects its overall profits.

The increasing importance of amenities in hotel-casino resorts calls for future studies on aspects such as finding better ways to use the available space of a property, developing more systematic ways to look at the indirect contribution of certain services on gaming volumes, and analyzing the decreasing influence on a company financial performance of some amenities vs. others.

After presenting previous studies, the paper will suggest alternative ways to analyze how to best utilize resort space in the current economic environment.

Justification

Amenities contribute to hotel-casino profits in two ways: directly and indirectly. While it is easy to recognize the direct contribution of an amenity to the overall performance of a company, the indirect influence of a service provided in a hotel-casino on gaming volumes and profits can be challenging. It is critical to consider this last aspect in order to succeed in the market and maximize the value of shareholders' investments. Previous studies, such as the one conducted by Lucas & Santos (2003) on the effect of restaurant sales volumes on slots volumes, showed that it is possible to estimate the indirect contribution of an amenity on the overall profit of a hotel-casino through the use of econometrics models. It is important to combine quantitative and qualitative analysis to more precisely estimate the contribution of certain amenities. Furthermore, statistical models are of great value in analyzing the indirect contribution of specific departments on the overall profitability of a company.

Choosing to provide a specific service, for example a poker room instead of a restaurant in a specific location, can impact gaming volumes as well as possible

revenues for the company. Management should carefully analyze both the direct and indirect contribution of amenities to better use the available space of the property. This could help a company take full advantage of its assets, provide differentiated and better service to its customers, adapt quickly to customers' needs, gain a competitive advantage in the market, satisfy shareholders' expectation and maximize the Return on Invested Capital (ROIC).

Constraints

One of the limitations of the paper is the fact that a thorough analysis of the highest and best use of all possible amenities provided by integrated hotel-casino resorts would be too extensive for the scope of this assignment. Therefore, based on available literature, this paper will analyze only certain amenities considered relevant in order to successfully follow the theory of highest and best use of space. To be considered as good investments, these amenities should withstand a statistical analysis of their indirect contribution to a property.

A second limitation of the paper is the lack of studies directly related to this topic, which limits the availability of data and therefore of possible applications to this paper. Future research on the subject is recommended.

Paper Outline

With the help of the current literature review, Part II of the paper will present critical concepts related to the paper topic, including the notion of Integrated Resorts and amenities as direct and indirect profit generators.

Part III of the paper will focus on the concept of highest and best use of a space, as defined in real estate, and will present a model to evaluate the indirect contribution of amenities on a company's profitability.

Finally, the section will conclude with thoughts on the importance of the concepts presented and on possible managerial and financial implications associated with the topic of this paper.

GLOSSARY

Definitions of some of the core concepts/topics presented in the paper are listed below. The body of the document will provide a more detailed explanation of the definitions.

- *Full Service Theory* – amenities can draw players that would otherwise not be attracted by the hotel-casino.
- *Bottom Line Justification* – the failure of a project¹, which leads management to try to cover up the project’s negative financial results by including them in the profitable “bottom line” of the company. The positive financial bottom line is provided by successful profit centers in the company.
- *Direct Contribution of an Amenity* – the profit or loss generated by a single independent amenity.
- *Indirect Contribution of an Amenity* – the profit or loss generated by an amenity due to its indirect association with another profit center.
- *Highest and Best Use* - the reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility and maximum profitability (Appraisal Institute, 1993).

¹ Referred to marketing activities by Lucas & Kilby (2008)

PART II

Literature Review

In the past years, the number of integrated hotel-casino resorts has increased exponentially. This transformation has been particularly noticeable in Las Vegas where the change toward an “all-round” entertainment complements the change from a town that gambles to a town that “games” (Binkley, 1997). These new properties are small towns built inside what we used to consider hotels not too long ago. A wide range of services, including gaming, spas, fine dining, nightclubs, retail shops, shows are often available almost 24/7. These amenities can be either individually profitable or be a financial burden for the company by failing to maximize the overall profit per square foot.

With the increase of leisure activities offerings, in order to succeed in the highly competitive hospitality/gaming market, hotel-casino resort executives need to answer new and more challenging questions, including the following:

- Which amenities can be independent value-adding profit centers?
- How much are the current amenities in the property indirectly contributing to the profitability of gaming departments or operations?
- Is the property making the best use of the available space or could it utilize it in a different way to generate more profits?

A New Era

The new hospitality and casino trends, influenced by higher competition and supply for leisure and gaming activities, signal the end of an era which has been characterized by the old management idea of “build it and they will come” that Roehl (1996) foresaw. It would be interesting to analyze if the service providers or the hotel customers were the driving force behind this change, but this study would be beyond the scope of this assignment.

Based on different target markets, different competitors, and a challenging economic environment, companies’ strategies can vary significantly. Generally, however, casino executives strive to keep their companies profitable while remaining competitive. Among the options available to increase their portfolio offerings there are two main expansion/upgrade alternatives:

- 1) Improve amenities to extend and/or deepen gaming activities and their related market to directly increase gaming profits;
- 2) Add profit centers, widening the offerings for the customers that will increase spending indirectly related to gaming.

Either choice can impact the hotel-casino profitability in different ways. This is why it is important to consider the options based on demand patterns and considering the ‘day of the week’ variable. Most of the integrated hotel-casino demand levels fluctuate based on the day of the week. One of the risks that executives need to avoid is to “build a church for Easter Sunday” leaving the hotel with excessive unutilized capacity or with the wrong use of the available space (Palermo, 2008).

Integrated Resorts

The 'Integrated Resort' (IR) concept has recently found common use in the legal gaming world. An IR is an extensive entertainment development built around a casino facility. One definition describes the IR as a multi-billion-dollar, multi-dimensional resort including a casino that does not occupy more than a small fraction (around 10%) of the available space but that generates at least \$300MM in gaming revenues (MacDonald & Eadington, 2008).

In 2004, during the bidding process for the only two Singaporean casino licenses available at the time, the Singaporean government made it mandatory that only a small part of the new hotel-casino developments would be used for gaming activities. The government's idea was to build not 'just' casinos. In fact, the Singapore authority's directive was to dedicate less than 10% of the available floor area for casino activities and leave the rest of the space to be used for hotels, convention centers, museums, theme parks, retail and food & beverage outlets. The support facilities would be the major focus of the developments (MacDonald & Eadington, 2008).

In reality, what the Singaporean government was trying to accomplish in 2004 was something that already existed in the market. Examples of IRs, in fact, could be found in Las Vegas since 1966, introduced by Jay Sarno and his Caesars Palace development followed by the opening of Circus Circus. These two developments were still mainly concentrated on gaming but their service offering was moving towards non-gaming. Other examples of IRs can be found in Australia with the Crown Entertainment Complex in Melbourne, in the Bahamas with the Atlantis on Paradise Island, and in South Africa

with the Grand West Casino in Cape Town (MacDonald & Eadington, 2008).

IRs are often the answer to markets that reached their maturity stage and face high levels of competitiveness. Las Vegas for example, had to reconsider its product offerings during the '80s, starting a reshaping process that transformed the town into what it is now: an integrated casino-resort destination (Christiansen & Brinkerhoff-Jacobs, 1995).

The relaxing of Canadian and American gaming laws contributed to the shift of Las Vegas hotel-casino operators toward a more entertainment-oriented strategy. After the Indian Gaming Regulatory Act² was enacted in 1988, and shortly after riverboats casino were legalized in many US states, Las Vegas hotel-casino operators realized that they could no longer rely on blackjack and slot machines to lead the market. When Atlantic City opened in 1977, Las Vegas had to give up part of its gaming monopoly. Now, with gaming becoming available around the country, Las Vegas had to face an increasing loss of the exclusive competitive position that the town had held for many years. The new situation made it necessary for hotel-casinos to find different ways to attract customers and differentiate themselves (Christiansen & Brinkerhoff-Jacobs, 1995).

Amenities Selection

In an attempt to expand their customer base and maintain their leadership as a gaming destination, Las Vegas properties opened the door to a new way of doing business. Caesars World, Circus Circus, Mirage Resorts and MGM Grand started to

² With the Indian Gaming Regulatory Act (1988), Native American lands in nearly 31 states became legally authorized to offer casino gaming services.

increasingly expand their casinos to include and combine entertainment with gaming activities (Christiansen & Brinkerhoff-Jacobs, 1995).

Amenities such as restaurants, bingo rooms, spas, retail outlets, nightclubs, shows are only few examples of what appears to be a 'must' for today's casino-resorts. To be able to deliver an all-inclusive type of service, operators are challenged to integrate high quality, trendy and, most of all, profitable entertainment venues under the same roof. Unfortunately, the available literature shows that it would be wise for management to rely more on statistical analysis than on common wisdom to decide what to offer (Ayres, 2007).

Steve Wynn opened The Mirage Las Vegas in 1989. The resort had a capital cost of roughly \$630MM and many financial analysts and industry experts would have never thought it would have yielded the expected return on investment. The market proved them wrong.

Currently, the hospitality industry has undertaken new multi-billion dollar IR projects with expensive amenities with the potential to become high revenue generating profit centers (MacDonald & Eadington, 2008). However, before embarking in these multi-billion dollar projects, careful analysis is necessary in order to avoid financial losses. In fact, while companies like Mirage Resorts made the combining of gaming and entertainment appear as an easy task to perform, entertainment and gaming are two very different sides of the business (Christiansen & Brinkerhoff-Jacobs, 1995) that need to be managed skillfully.

Moreover, from a risk management perspective, commercial entertainment is considered one of the most difficult businesses to run. Any commercial entertainment venue which would seem to have good chances of success on paper could be a failure if, for any reason, it does not satisfy the demand of the target customer. On the other hand, given the same conditions, including expert management skills, adequate financing and an encouraging market demand, casino venues tend to provide revenues in a more predictable range than commercial entertainment venues (Christiansen & Brinkerhoff-Jacobs, 1995). While gaming activities, still considered as key IRs profit centers (MacDonald & Eadington, 2008), provide management with more predictable financial results, the same cannot be said for amenities included in the hotel-casino product offerings, therefore making this aspect of the business riskier (Christiansen & Brinkerhoff-Jacobs, 1995) even if potentially highly profitable (MacDonald & Eadington, 2008).

An objective analysis of the investment options available to hotel-casino operators would be helpful for many reasons, in particular to:

- prevent or avoid highly risky projects,
- avoid the trap of “one model fits all”. A successful project, replicated in a different location, is not guaranteed to be successful, and
- maximize the profitability of the available space in the hotel-casino, considering direct and indirect contributions of the available amenities.

With the help of the available literature, the following sections will discuss the above points in more detail. Greater attention will be placed on the concepts of direct and indirect contribution of casino amenities.

First of all, entering the entertainment and leisure markets can be risky and not provide the expected return on investment (Binkley, 1997). While the gaming mix offerings on a casino floor can be easily adapted to the market demand, selecting a specific amenity locks the hotel-casino to a long-term commitment, which can have deep impacts on the financial performance of the company (Palermo, 2004).

Second, replicating other companies' models can potentially jeopardize the profitability of a hotel-casino. Players' preferences for specific games vary based on factors such as age, sex, income and region of residence (Dandurand & Ralenkotter, 1985). Companies should carefully consider which type of amenity to add to their mix as well as how to operate them to retain and attract customers (Brock, Fussel, & Corney, 1990).

Adding entertainment venues and amenities to the hotel-casino product offerings often increase the financial risk of a company, but also provides the potential for achieving higher profits (Christiansen & Brinkerhoff-Jacobs, 1995).

IRs still have casino activities as their nuclei. The casino areas, even if located in smaller areas, still act as the main business engines for the company, being often responsible for driving returns in other amenities. The importance of the mix of amenities offered in IRs is evident. In a market like Las Vegas it is possible to see IRs

where only 50% of the revenues comes from casino operations while the rest is produced by the IRs' other amenities. Other examples are the Atlantis on Paradise Island in the Bahamas and Sun City in South Africa where 70% of the revenues are generated by non-gaming activities (MacDonald & Eadington, 2008).

On the other hand, especially when dealing with multi-billion dollar projects, having a casino as the center of the IR activities is a must. This is particularly true in light of the financial risks of the projects and for the fact that casino activities are great direct economic contributors even if in some cases not the main ones any longer. Incidentally, as part of the bidding process for the two available gaming licenses, the Singaporean governments had set a 50% cap on gross revenues that could be derived for gaming. This cap was later eliminated when the authorities realized the importance of gaming as a main economic contributor for IRs.

Two examples of IRs failure in Hawaii, the current Grand Wailea in Maui and the Waikoloa on the Big Island, underline the importance of including gaming activities as a direct economic engine to boost other peripheral amenities (MacDonald & Eadington, 2008).

Due to the risks associated with amenities and entertainment venues projects, it is important to analyze their performance based on their direct and indirect contribution to the company's profitability.

Loss Leaders

Restaurant amenities built within hotel-casino resorts with the intent to attract and retain customers are considered “loss leaders”. Food and beverage (F&B) venues are added amenities to the gaming ones with the purpose of widening the entertainment options for the player. The idea at the base of this concept was to provide food, limiting the chances that a player might walk out of the casino to look for food. In casinos, restaurants have slowly gained the position of profit centers after having often produced losses in the past. Nevada companies with gaming revenues between \$20MM and \$200MM, which are now offering more numerous and more high-end restaurants, presented food operations losses of -14% of sales in 1995 compared to only -1.5% in 2001 (Nevada Gaming Control Board, 2001). The improvement in the financial results of F&B departments still leaves the open question of how to retain the market share of an occasion-segmented market such as that of restaurants when having to compete fiercely to steal some of the available leisure time of a limited customer base (Palermo W. J., 2008). Moreover, when related to food operations, managers should determine if a restaurant is truly the best way to use the available space, especially in light of the available data provided by the Gaming Control Board. In fact, for what concerns Nevada, while some Strip venues have achieved profitability with their food venues, other hotel-casinos experienced departmental revenue losses as high as -21.3% from 2007 to 2008 (Nevada Gaming Control Board, 2008).

Two different studies analyzing the positive relationship between food covers and gaming volumes (in particular slot machines) provided different results on the subject matter. The results of the first study failed to prove a statistically significant relationship between daily covers and coin-in (Lucas & Brewer, 2001) while the results of the second study supported the belief of an existing positive relationship between restaurants and gaming volumes (Lucas & Santos, 2003).

These studies supported the idea that there are many variables to take in consideration when analyzing hotel-casinos and different profit centers. For example, in the study conducted by Lucas & Brewer, the restaurant operating at a loss was already a constant, while in the study by Lucas & Santos, the restaurant analyzed was already marginally profitable.

This is why management should be cautious in adopting strategies shaped for specific and personalized operating conditions. Every company is different, and what can be effective for one hotel-casino might not meet another company's needs (Lucas & Kilby, 2008).

Amenities' Direct and Indirect Contribution

Understanding the difference between direct and indirect contribution of the available amenities on the overall performance of a company is crucial to succeed in the market. As presented by Dandurand & Ralenkotter (1985), an amenity contributes to a company's profits in the following ways:

- directly, producing enough revenues on its own to exceed its expenses, and therefore being independently profitable, or
- indirectly by affecting the performance of other profit centers.

In his study on food service and entertainment, and their indirect impact on casino revenues, Roehl (1996) discussed the importance of recognizing the indirect contribution of specific amenities. The author referred in particular to coffee shops and gourmet restaurants, which, based on the results of the multiple regression analyses performed during the study, indirectly contributed to the company's profits. On the other hand, users of buffet restaurants and lounge shows did not significantly contribute to the profitability of the casino.

These conclusions did not question the importance of amenities as an added value to integrated hotel-casinos. To serve different types of customers in fact, hotel-casinos segment themselves in different tiers (Watson & Kale, 2003). For example, one category of customer that can be valuable for an integrated hotel-casino is the high roller. This typology of player provides a high volume/high stake gaming activity and is therefore a possible source of revenue for the casino. The high roller usually receives different benefits such as discounts on losses, airfare reimbursements, complimentary F&B and lodging, etc. (Lucas & Kilby, 2008), to entice him/her to play at a specific casino. An integrated hotel-casino that is likely to attract such a type of customer needs to provide a certain level of quality of service and amenities as well as a variety of entertainment options (Watson & Kale, 2003).

The different offer mix of amenities needs to be based on the target market where the IR is located. With few exceptions (Las Vegas and Macau), in fact, most gambling markets attract locals. IR management needs to take in consideration the market and the feasibility of each project in order to be profitable (MacDonald & Eadington, 2008).

In addition, it is important for any amenity to positively contribute to the company success either by generating profits independently (direct contribution) or by proving to be the reason for a customer segment to patronize the hotel-casino (indirect contribution) (Roehl, 1996). In the case of high rollers, companies need to consider the impact that the complimentary services offered to those players have on the performance of profit centers (Lucas & Kilby,2008).

Direct Contribution

Results of the direct contribution of amenities can be gathered directly from a department monthly financial statement (Lucas, Dunn, & Kharitonova, 2006).

Some amenities such as casino-owned restaurants or bingo rooms have been mentioned in the literature as examples of negative direct contributors toward hotel-casino profits (Lucas et al., 2006 and Lucas & Brewer, 2001) due to the negative performance of the independent profit centers.

In contrast, certain amenities such as spas have become increasingly positive revenue generators in the past few years. While in the 80's having a spa inside a hotel property was considered a luxury, today it is a must for IRs. Spas gained increasing

acceptance in the hospitality industry throughout the years and evolved from a support facility to a profit center (Madanoglu & Brezina, 2008). Mark Lomanno (2005) analyzed operating statistics of hundreds of resorts which either included or did not include spas in their properties. His data showed that the average daily rate (ADR) of resorts which incorporated a spa was \$228 against an ADR of \$154 for resorts that did not offer a spa (Lomanno, 2005). This finding partially links the significant profitability of spas and their possible direct positive contribution to a company which might consider investing in it. Even if the study provides only an estimate of spas' contribution towards a resort bottom line, it shows an important aspect of this amenity: its potential for high contribution. Spas, in some cases, can contribute up to twenty percent to room revenues (Madanoglu & Brezina, 2008). However, since every company is different, this does not mean that a specific business model can be easily replicated to obtain the same positive results (Lucas & Kilby, 2008). Nevertheless, the study mentioned above highlights a positive pattern that could encourage management to add a spa to an IR.

If based only on the direct contribution of specific profit centers, management could quickly invest on the most profitable amenities while divesting from less lucrative ones. Often, however, casino executives need to take in consideration other variables too, some directly related to the company's target customer market, like age, sex, income and region of residence (Dandurand & Ralenkotter, 1985).

In addition, there might be an emotional attachment to certain amenities that might affect operational decisions. For example, the rise of many Indian casinos began with

bingo halls, making it hard for management to objectively analyze the poor performance of bingo rooms in the modern casino context (Lucas et al., 2006). This means that Indian gaming ventures might consider it vital to have this type of amenity in their casino-hotels even if it has proven to be both directly and indirectly unprofitable for the company.

Indirect Contribution

While it is easy to calculate the direct contribution of gaming and of certain amenities to the overall performance of a hotel-casino, the same is not true for the analysis and calculation of the indirect financial contribution that these amenities provide to each other and to the company.

Tracking and analyzing data regarding the indirect financial contribution of amenities on the overall company's performance is more challenging. Indirect contribution, in fact, translates in the ability of any amenity present in a hotel-casino to keep the guests onsite and therefore positively or negatively contribute to the company's bottom line (Dandurand & Ralenkotter, 1985).

Frequently, casino executives include unprofitable amenities in their product offerings with the only purpose of attracting people to their casinos. Even with scarcity of empirical published research, some studies provide examples of how these types of assumptions can be wrong. An instructive example of a loss leader is provided by bingo rooms. This particular old-school type of amenity, even if it produces constant losses as an independent profit center, still exists in many casinos. To gain its place on the casino

floor, an amenity should either directly and positively contribute to the company's financial performance as a profit center or, if unprofitable, its indirect contribution should outperform the losses in its individual department (Lucas et al., 2006). Many executives accept losses as high as \$2M per year from bingo rooms, based mainly on the assumption that bingo rooms are tools to push bingo players to play slots while visiting the casino (Tosh, 1998).

One study in particular has shown that daily bingo headcount was not statistically related to daily coin-in, contradicting the idea of a positive indirect financial contribution of bingo rooms to slot machines. To justify the use of the available space, bingo rooms should at least indirectly contribute to other profit centers for an amount that is greater than the loss incurred by the department (Lucas et al., 2006). Unfortunately, the study results would not justify the existence of the bingo room considered in the research, emphasizing even more the importance of a careful analysis of the highest and best use of the available space.

It could be argued that often casino executives fail to appropriately research and analyze data to estimate the indirect contribution of certain amenities. This could be true in situations where one department is performing poorly and attempts to hide its negative results by using the positive bottom line of financial statements, which include the results of all the profit centers (Lucas & Kilby, 2008).

Additionally, the vast amount of variables affecting hotel-casino resorts operations makes it harder to recognize the amenities that truly indirectly contribute to

the overall profits of the company. One example is provided by the effect of complimentary sales (recorded at retail value) on the overall performance of the restaurant under examination (Lucas & Brewer, 2001). For example, after having earned enough slots play on a given day, a player could take advantage of a complimentary meal in the casino restaurant, therefore compromising the real number of the restaurant headcount (Lucas & Kilby, 2008). Furthermore, it would be challenging to understand if the restaurant induced the slot play or if the gaming activity indirectly brought the player to the restaurant (Lucas & Brewer, 2001).

Some of the finding offered by the studies mentioned in previous sections of the paper would be helpful to better reallocate a company's financial resources toward the more valuable amenities. For example using the statistical model applied by Lucas et al., (2006), managers could objectively evaluate if investing in a poker room is a valuable alternative to increase profits or if any other amenity could generate higher returns through the best use of the available space.

Skepticism toward the use of statistical analysis permeated most of the hospitality industry for a long time. Relying on traditional knowledge seemed to be the easiest way to manage everyday business, but, if compared to the objective results of statistical analysis, the latter has proven to be more reliable (Lewis, 2004). The increased focus on number crunching and the parallel evolution of technology opened the door to new ways of analyzing customers' profitability and of taking advantage of unsatisfied needs (Ayres, 2007).

Managers in the hospitality industry now have the tools to define possible

operational problems and to find quicker and new ways to serve their customers. New hotel-casino information technology systems, combined with statistical models offered by researchers like Lucas et al. (2006), provide present and future generations of executives with tools to find reliable explanations to extremely complex issues. One of the issues to be analyzed would be finding which are the amenities that indirectly and positively impact casino revenues while being independently profitable.

Combining statistical, real estate and marketing analysis could reduce the level of risk of certain projects. For instance, through the use of a Customer Profitability Analysis (CPA), which is a target market analysis, companies could better allocate resources and improve their profitability levels. Managers often face the challenge of looking for more creative ways to distribute resources based on different groups of customers (the company target markets) while having to record them by department. At the same time, accounting departments track operational results by department while marketing teams tend to evaluate economic data based on market segments.

The use of the CPA model, which focuses on a market segment profitability analysis, can enable hospitality industry operators to better understand how to target their market segments as well as how to implement their business strategies while not being locked in a departmental approach. Combining accounting systems with marketing segment profitability systems could help management in measuring past customer profitability as well as better direct investment toward prospective customers (Karadag & Kim, 2006).

The application of the CPA model, combined with statistical analysis and a

highest and best use analysis, could be useful to better evaluate future amenity projects to add to the present product offering of a company as well as to reconsider past unprofitable projects. The following part of the paper will present the real estate concept of highest and best use and how it can be applied to the topic of IRs. Additionally, the following section will provide a brief model to analyze the indirect contribution of amenities on a company's profitability.

PART III

Analysis and Methodology

Finding the Best Mix

Every IR strives to find the best mix of gaming and leisure activities to offer to its customers in order to increase its profits. Finding the perfect combination of amenities and gaming is often difficult and requires a mix of elements such as the presence of talented management, the availability of reliable data regarding the company's performance and the ability to perform an objective analysis of that data with the help of statistical models. The lack of any of these elements would yield the wrong results.

As mentioned in the literature review, there are some questions that, when properly answered, could help hotel-casino executives in successfully managing their companies and possibly gaining a strategic advantage over the competition. Some of the questions previously mentioned are:

- Which amenities can be independent value-adding profit centers?
- How much are the current amenities in the property indirectly contributing to the profitability of gaming departments or operations?
- Is the property making the best use of the available space or could the space be utilized in a different way to generate more profits?

The following section of the paper will provide some tools to better answer the above questions, and the next segment will hone in on the concept of highest and best

use of available space as applied in the business retail world and on its possible positive applications in the hospitality-gaming industry.

Highest and Best Use

The highest and best use analysis has been considered as the ‘heart’ (McBurney, 1997) as well as the most important opening conclusion of an appraisal (Lennhoff & Elgie, 1995). The definition provided by the Dictionary of Real Estate Appraisal of highest and best use is the following:

“The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility and maximum profitability (Appraisal Institute, 1993)”.

This definition summarizes the most important aspect to be taken in consideration during an appraisal process. On the one hand, the current highest and best use definition has been accepted by the retail literature. On the other hand, there have been critiques on the ambiguity of the terms used in the definition.

After highlighting some of the limitations of the current definition of highest and best use, Lennhoff & Parli (2004) present to the reader what they believe is a ‘higher and better’ definition. Some of the aspects criticized by the two Authors are:

- The use of the conjunction ‘and’ instead of ‘or’ in the phrase “reasonably probable and legal use”. The use of the word ‘and’ leads the appraiser to consider as highest and best only those current legal uses which are reasonably probable, thus being inflexible with uses that are not currently legal or physically possible but that could develop into that highest and best use in the near future (for example in the case of a rezoning).
- As mentioned by the Authors, since the analysis has to be based on current market conditions, this stringent interpretation of the terms could exclude a more realistic analysis of the market, therefore impacting the possible value of the land or space as well as the returns on investment in the case of renovated and improved properties.

Finally, the authors present a new definition, which is more flexible in that it leaves space for future and financially feasible uses, as opposed to the current accepted definition, which limits the analysis to the current market and property situation.

Lenhoff & Parli’s (2004) proposed new definition of highest and best use is the following:

“The probable use of land or improved property, specific with respect to user and timing of the use, that is adequately supported and results in the highest present value”.

Mc Burney (1997) underlines the importance of ‘reasonable probability’ and ‘adequate supportability’ in properly conducting an appraisal. These two concepts, in

the highest and best use definition of The Appraisal Institute, are not subsequently listed as criteria to follow in order to perform an appraisal. Mc Burney (1997), on the other hand, considers probability and supportability as critical aspects to the successful performance of an appraisal. He, in fact, includes the two features in the model shown in *Figure 1*³.

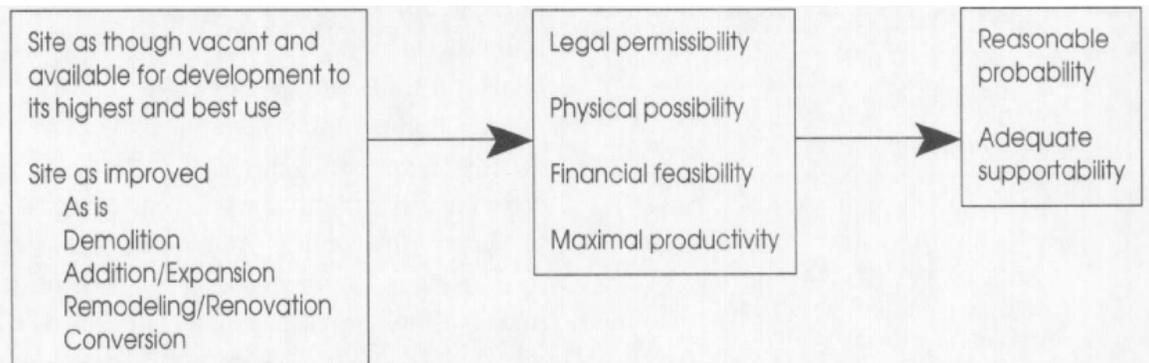


Figure 1. Highest and best use outline

If the current use of the available space of a property is not the highest and best one, those in charge of evaluating the property's profitability need to follow the four criteria of legal permissibility, physical possibility, financial feasibility and maximum profitability making sure to consider 'reasonable probability' and 'adequate supportability' in the analysis. For example, a house built in a central business district might not translate into the most profitable use of the lot it is built on, while an office building could. To maximize the land profitability, the house would need to produce as much residual value as the alternative use of the lot, in this case an office building (McBurney, 1997).

³ Source: "Highest and Best Use Outline," by D. E. McBurney, 1997, *The Appraisal Journal*, 65, p. 302.

When applied to IRs, this concept could be transferred to the use of available space to build specific amenities. For example, let us consider MGM MIRAGE's recent construction project of the theater housing the Ka show of Cirque du Soleil. MGM Grand's executives could have briefly analyzed the investment following the steps provided in *Figure 1*. Subsequently, they could have evaluated the project focusing more on the highest and best use criteria of financial feasibility and maximum profitability. This type of analysis could have preventively shown them if their investment would have brought the maximum profitability for the available space used in the property or not.

Conspicuous investments need to be supported by guaranteed returns on investment. Transforming the available space to include a new amenity in the product offering is risky. In case of failure, the space will not be easily converted into something else and the company could waste time and profit per square foot. This is true not only for hospitality development projects but also in any project related to the service industry, from retail to entertainment.

For the purpose of this research topic, it would be important to consider the last point mentioned above in combination with an analysis of the indirect contribution of the amenity under analysis. This combined analysis would be important since only those uses producing acceptable financial gains to a company (in our example a hotel-casino) are considered as highest and best use determinants (Lenhoff & Parli, 2004).

Based on our previous example, when evaluating an amenity renovation or expansion, it would be useful to perform an analysis on the actual direct and indirect contribution of the amenity on the overall profitability of a property combined with an analysis of the highest and best use of that specific space. These analyses should also be combined with an analysis of the current market conditions, which is critical in determining the highest and best use of the available space (Lennhoff & Parli, 2004).

Some of the studies mentioned in the Part II of this paper require future analysis on the indirect contribution of certain amenities on the overall company's profitability. At the same time, it would be of great value to analyze if certain amenities such as bingo rooms, spas, restaurants, nightclubs, retail outlets and the entertainment venues offered by a specific IR in its specific market provide the highest and best use of space for the company.

The lack of experimental research in this area is mostly due to the understandable reluctance of hotel-casino management to authorize these types of analyses to protect their customer experience (Lucas & Santos, 2003). On the other hand, as presented in past studies, by combining past funding with the analysis of data gathered through statistical models suited for the specific study purpose, companies could be able to find the appropriate amenities mix combination to maximize their profits.

Assuming that companies managing hotel-casinos are profit driven, the following section provides a useful tool to analyze the specific profitability of certain amenities.

How to Calculate the Indirect Contribution of Amenities

Amenities can contribute to a hotel-casino profitability both directly, when consumers' spending related to a particular amenity exceeds the cost related to operate it, and indirectly. As underlined throughout the paper, the indirect contribution to a company's profitability is less obvious than the direct contribution and needs to be specifically calculated (Dandurand & Ralenkotter, 1985).

The recent gaming literature provides executives with tools to estimate the indirect contribution of specific amenities under analysis to the overall company's profits. For example Lucas (2004) evaluated the impact that redeemed match-play coupons would have on gaming volumes. Through the use of time series modeling techniques derived from the Box-Jenkins model, Lucas was in fact able to remove autocorrelation from the tested model using ARMA terms.

The following section will provide a brief explanation of the process analysis in evaluating the indirect contribution of certain amenities to the profit of a hotel-casino.

A regression analysis is usually used to predict the value of a variable (the dependent variable) based on the value of other variables (the independent variables) (Levine, Stephan, Krehbiel, & Berenson, 2008).

Time series data are usually data collected in sequence, and the error terms are often correlated over periods of time (Tabachnick & Fidell, 2001). One of the assumptions of a regression model is that the error terms are independent, and therefore not correlated. The presence of autocorrelation/serial correlation, the correlation between the current and any previous errors, will violate this assumption, making the regression estimates inefficient even if unbiased (Pindyck & Rubinfeld, 1998).

In case of serial correlation, it would be helpful to apply the ARMA model by adding the ARMA terms to the regression model to control the autocorrelated residuals. The purpose of a time series analysis using the ARMA model is to avoid any information that the correlated errors are retaining and which are affecting the analysis (Pindyck & Rubinfeld, 1998), thus providing more reliable results.

There are many independent variables that hotel-casino executives might want to evaluate as indirect contributors to profit. Based on a company's needs, the testing of any of these amenities/variables to observe their impact on the dependent variable could help them determine the best options to maximize profits, based on the available space.

For the purpose of these types of studies, control for variables such as special events, holidays, days of the week and direct mail offers should be used. In fact, keeping these variables constant would minimize their effect on the outcome of the analysis and show a more reliable contribution of the key variable to the dependent variable.

For example, as shown in *Figure 2*, when studying the indirect contribution of poker tables on daily coin-in from slots, the variables used in the analysis could be:

- Dependent variable: daily coin-in
- Independent/key variable: poker rake
- Control variables: special events, holidays, day of the week, direct mail offers
- Correction variable: ARMA terms

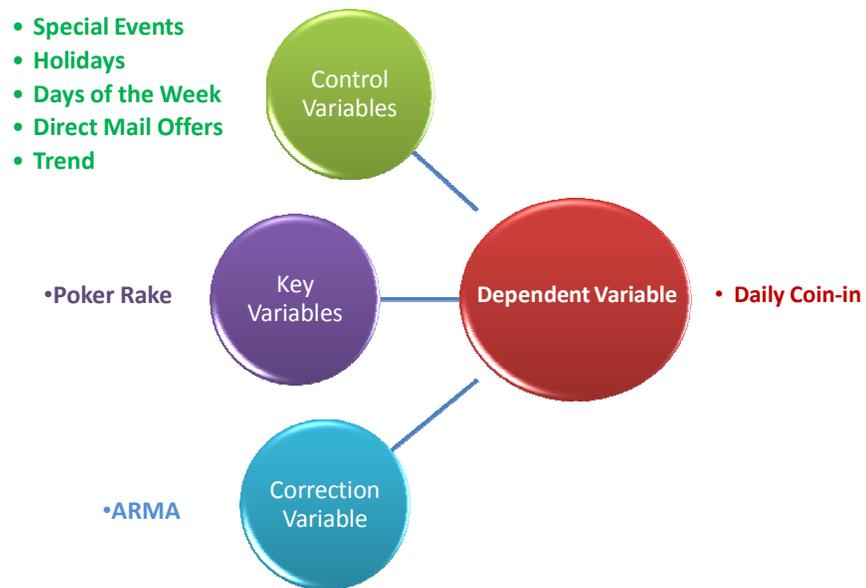


Figure 2. Specific theoretical model of indirect daily poker rake contribution to daily coin-in.

Figure 3 presents a model that includes some of the possible variable combinations that management could use to:

- Evaluate the indirect contribution of certain amenities to other amenities;

Evaluate the indirect contribution of specific amenities to the overall profits of the hotel-casino.

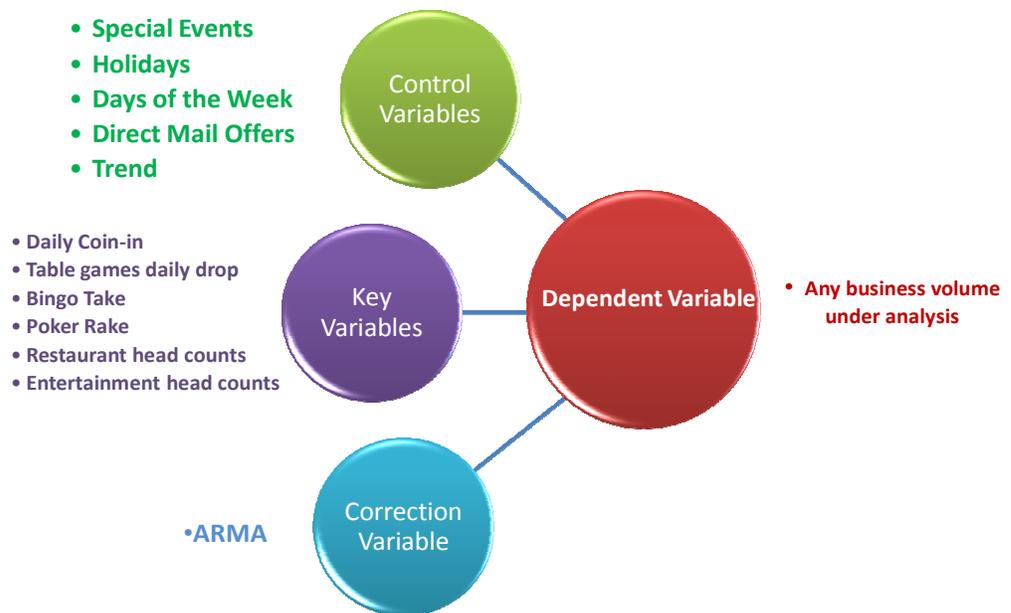


Figure 3. General theoretical model of indirect key variables contribution to business volume

Each component of the graph contributes somehow to the performance of the hotel-casino. Only some of the possible variables were listed. Additional key variables

could be spas, nightclubs and shows headcounts, just to mention a few. With the help of this tool and of the appropriate econometric models adapted to the specific goals of the research, hotel-casino executives could adjust their strategies and better respond to unfulfilled customers' needs.

The following section will focus on the financial and managerial implications of the analyses described in this paper. Furthermore, after considering the limitations of the paper, we will provide recommendations on how to apply some of the concepts illustrated in previous sections based on the possible business implication discussed.

Paper Limitations

Some of the limitations of the paper are:

- The impossibility of analyzing highest and best use of all the amenities' option available in the market. This paper therefore attempted to bring some examples as possible starting points to analyze future hotel-casino layouts.
- The scarce literature related to the topic. This shortfall calls for future studies, especially when considering the increasing amount of financial investments in the hospitality industry and the limited real estate space options available in highly valuable touristy areas.

Financial and Managerial Implications and Recommendations

Challenged by a global economic crisis and by increasing competition in the market, the hospitality industry tries to reinvent itself constantly in order to differentiate the products it offers.

What we use to consider hotel-casinos not too long ago are now fully integrated resort-casinos offering every possible new type of amenity. IRs management strives to provide the best product/amenity mix combined with gaming activities and hotel accommodations, with the constant goal of maximizing profits for the company. This is particularly true for publicly traded companies, which have to meet both customers and investors' expectations.

The current economic recession does not justify risky projects, even if with high

potential return on investments, anymore. As mentioned in the section *A New Era*, the present market is characterized by decreasing demand and strict financial constraints. This picture calls for new managerial and financial approaches when dealing with the evaluation of new projects.

New IRs projects and developments should be carefully analyzed based on how hotel-casino operators want to allocate their companies' profit. In fact, one of the most complicated tasks for hotel-casino executives, especially when working for publicly traded companies, is deciding how much to "render unto Caesar" or how much to give back to stockholders while reinvesting funds to improve the firm's profitability. In most cases, casino operators tend to reinvest operating profits in properties implementations or expansions instead of distributing them to stockholders in the form of dividends (Palermo, 2008).

This last point stresses even more the importance for a careful analysis to decide the best mix of amenities and to properly perform a highest and best use analysis of the available space. It is critical to consider the direct and indirect contribution of amenities to a company's performance especially when dealing with IRs developments, where the profit gains could be noticeable but where the risk of failure could be devastating for the company's image.

Deciding the best gaming mix to offer in a casino can be difficult but it can still be adjusted with limited additional costs, based on market demand and on the floor layout available. Unfortunately, this is not the case when the new amenities involve conspicuous investments and a permanent change of the hotel-casino available space

(Palermo, 2004).

For example, understanding if, based on the market demand, a poker room is the best option to maximize the square foot profitability, or if the company would be better off covering the available space with slot machines, could drastically impact an IR financial performance. Additionally, management needs to understand which amenity is contributing indirectly to the positive results of other amenities, i.e. if it is the nightclub that increases the number of players in the casino or if it is the casino which is indirectly contributing to the success of the nightclub and, moreover, to what extent is this contribution affecting the IR's financial performance.

These questions would help to better define the target market and marketing activities to support specific areas of the business. Furthermore IRs executives could discover new unfilled customers' needs and invest in new profitable areas.

This is why, while planning an IR, performing market and feasibility analysis might be critical to the future success of the company. The use of gravity models to analyze the characteristics of local and target markets of interest as well as the frequency of visitation of customers in certain areas could help determine if it is viable to develop or expand the project. According to MacDonald & Eadington (2008), an IR could be feasible if the gaming market is considered to be above \$300MM in gaming revenues per year. In this case, after deciding to proceed with the project, IR management should focus on finding the right mix of amenities to include as a supplement to the already satisfying potential gaming returns.

Management should take in consideration both direct and indirect contribution

of amenities on a company's financial performance. Considering one while not taking into account the other could produce long-term negative effects on the financial performance of a hotel-casino. As shown in the paper, this does not mean that, if unprofitable, a specific amenity should not be included in the IR's mix of service offerings. On the other hand, amenities like restaurants and bingo parlors, often operating at a loss, should justify their existence with an indirect contribution to other venues that overcome their departmental losses.

The long-term impact that the choice of the wrong product offer can have on the company's profitability can be hidden in many ways, as the wrong marketing promotional activities can be hidden with bottom line justifications. The major concern for hotel-casino executives should be that it might be too late to financially recover from the wrong use of the available space.

Executives, developers, architects, designers, need to decide which product to offer and how to offer it, but even when perfectly planned, a project can be a failure if customers are not satisfied with the product. The ultimate decision lies in the hands of customers/guests/buyers. Therefore, it is critical for management to take customers' preferences in consideration and analyze the characteristics of the company's target market when deciding a business strategy (Underhill, 1999).

This paper challenged the general assumption that the presence of certain services in a hotel-casino resort indirectly and positively affects its overall profits. Often, IR's executives rely on past knowledge and common wisdom to justify the presence of certain amenities in the offer mix. But, as shown in some of the studies presented,

some amenities do negatively impact properties' revenues.

Even if scarce, the available literature provides useful tools for managers to analyze the financial performance of certain amenities offered by their firms. Gaming is no longer a 'scarce resource' (Christiansen & Brinkerhoff-Jacobs, 1995) and, to differentiate themselves while still providing the expected returns to investors, successful IR operators need to base their offer choices more on empirical data, which are considered more reliable than assumptions based on general practices (Zickmund, 2002). Combining quantitative models with qualitative models to evaluate the most profitable mix of amenities to offer could enable casino-hotel executives to quickly react and adapt to market demand changes.

In addition to gaming, there are many other industries that no longer hold an exclusive position and where competition has intensified significantly in recent years. The concepts presented in this paper could be easily applied to those industries. A good example of a possible area of application is the retail industry, where the number of new retail stores has been recently increasing at a faster pace than the number of new shoppers, leading to a situation where customers are over-retailed (Underhill, 1999). In this situation, the study of direct and indirect contribution of specific departments and the highest and best use analysis would be beneficial to evaluate current companies' positioning and future opportunities. For example, It would be interesting to analyze if and how much a Starbucks location positioned inside a Smith's store indirectly contributes to the overall performance of the grocery store and vice versa and if this is the best use for the available space; or a study could focus on the right mix of amenities

and stores to offer in specific shopping malls.

There is a growing need for studies on the topic and, with the increased importance and expansion of the concept of IRs, the current recession and a stronger global competition, the hospitality industry needs to pay close attention to the impact of amenities on the overall profits of each property, the use of the available space and the possible long-term contribution of these amenities to the company's financial performance.

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“The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity.”

-Albert Einstein