

CASE STUDY

TABLE GAMES YIELD MANAGEMENT AT CROWN CASINO: A SUCCESS STORY

Crown Melbourne is one of the premier integrated entertainment resorts in the southern hemisphere, featuring 500 table games and 2500 gaming machines, and attracts approximately 18 million visitors every year. Crown has had an enviable track record of implementing innovative solutions that ended up becoming mainstream successes, such as the launch of Rapid Roulette and the use of advanced database marketing and analytics. One of the company's recent projects has involved the implementation of business intelligence technology from Tangam Systems to help yield table games. In this publication, Crown's Executive General Manager of Table Games, Sean McCreery and Business Improvement Manager, David Croft share their knowledge on how Crown applied yield management technology to improve table games performance and enhance the experience for their customers.

THE BENEFITS

Has yield management of your table games impacted your bottom line?

Sean McCreery: Yes, particularly in Crown's mass-market games and high volume premium areas. The business has clearly witnessed the benefit of using yield management technology in key metrics such as win per open hour and table utilisation ratios. Overall labour efficiency has improved simply by the business now having the capacity to dynamically 'tweak' employee rosters to better match supply with changes in demand. Ultimately, it has allowed Crown to use science to determine where best to allocate labour and product based on the demand for that day or period, as opposed to relying on intuition.

Have you seen any operational benefits with using yield management technology?

David Croft: Most definitely. Using yield management technology has allowed Crown to better manage our labour. The specific planning of table spreads and game mix - based on changes in demand, is now more efficient and continuous. Crown's operational staff are more confident and dynamic in opening or closing tables, along with setting price points, using science rather than instinct. One of the leading indicators that was tracked was the percentage of tables that were 'unoccupied', 'at optimal occupancy', 'above optimal occupancy', and 'below optimal occupancy', and there have been improvements across all of these metrics. For instance, there was a reduction in the percentage of tables 'unoccupied' from 33% to approximately 22% by optimizing spreads. The result is increased profitability and improved availability for customers.

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How does yield management impact the customer experience?

Yield management positively impacts the customer experience. Crown is now able to consistently offer an ideal occupancy level for each player segment, as well as for each game, and to make changes that take into account what is happening across of all our tables rather than just in a specific area.

By avoiding under-spread scenarios and reacting to changes in demand much more quickly, Crown ensures that customers can find a space to play and that they have availability of their preferred games and price points.

Are the benefits applicable to all types of games such as Baccarat, Blackjack and Roulette?

Essentially yes, Crown has seen benefits for mass market games as well as high volume premium areas.

ACTIONS THAT DROVE THE BENEFITS

What was management's philosophy with respect to table games yield management previously?

Crown has applied yield management principles for many years, and believes in the importance of this process as a fundamental part of our operation. However, the tools we were using did not allow the process to realize its full potential, and our review and change process was very clunky.

TYM has provided Crown with an infinitely more efficient way of delivering the benefits of yield management.

How were you planning your table spreads, schedules and betting minimums before you implemented the yield management system (TYM)?

Previously the business worked with data analysis tools like Cognos to extract data such as hourly headcount information. This data was then manually reviewed so that we could analyse our rosters, pricing and product mix by pit or area against the theoretical optimal occupancy.

This process would normally take our analysts a significant amount of time and resources to complete, meaning that we weren't as efficient as we wanted to be in considering both major and minor changes.

In addition to this, because our floor staff were working with a lack of real time information to help them in their decision making, we knew we were missing out on short term opportunities to react to changes in demand. When changes were made, they were potentially being made in isolation without consideration to what was happening elsewhere in the business.

What challenges would you face with the manual analysis approach?

Manual analysis was time consuming and could only be applied to a set period of time, along with the fact that manually generated reports are static. The reports we were generating lacked the ability to drill down, tweak the parameters, perform what-if analysis, and did not prioritize potential opportunities. Because of these shortcomings, opportunities to improve yield or adapt to changes in the business were being missed or identified late, meaning our decision making process was less efficient than it should have been.

Although all operators have the same challenges of maximising yield on tables, using a manual approach given the scale of our business, data capture, and warehouse and analytical capabilities, meant that finding the right tool to automate and add to this process was critical in improving the management of the business.

Now that you have an automated yield management tool (TYM), how has this process changed your back-of-house planning?

With TYM, gaming areas are now analyzed continuously. Actionable recommendations of trends, spreads and pricing are automatically generated along with the ability to drill down to a specific point in time or area for further verification, and to review historical decisions. Information is now available on-demand to the planning and management team as monthly and weekly summaries, as well as daily or down to the hour if needed. TYM gives us the flexibility to easily adjust variables such as the dates used, for historical modeling and to evaluate trends.

What used to take Crown analysts at least a week now takes less than a day, and the depth and quality of the analysis has vastly improved.

After witnessing great results from our initial use of TYM, Crown is now extending its analytical capabilities even further. Our analysts are now using TYM to try different combinations of spreads, shift durations and start times to simulate how it would impact revenue. For example, if Crown was to open ten more Baccarat games in a specific area, what would the change in net revenue be? What if the business opened games three hours earlier, or introduced a new shift? There is now a tool that enables us to simulate the outcomes of these what-if scenarios, and determine the optimal spreads, shift lengths and start times that will maximise net revenue.

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Now that your floor staff have better tools for informed decision making, how has their behaviour changed?

Through TYM, Crown has been able to take what was typically learned through years of experience, and instead use technology to improve the knowledge of all frontline managers on the principles and benefits of yield management. Importantly, this provides our managers with a tool to actively manage this based on sound principles rather than instinct. As a result, there has been a significant increase in operations staff 's awareness of spread and price management. Floor managers have access to both the native and iPad versions of TYM, and have the information to open and close tables or set price points as appropriate. There are a few property specific guidelines they need to work through but generally they are left to manage the floor operationally. The key is managing the business proactively rather than being reactive.

Do you have any new initiatives relating to yield management planned for the future?

One of the challenges for operators has always been the accuracy and granularity of data that is used for analysis and planning. In an ideal world, it would be great to have real time accurate head counts, captured automatically. This opens up a world of potential benefits and opportunities. Having additional data to allow better analysis of betting patterns and the use of jackpot wagers and side bets would enhance our product development capabilities. Crown is actively working alongside the engineers at Tangam to test a video recognition technology utilizing Crown's existing surveillance system to provide additional tools such as the automated tracking of bet counts and bet placement. It is only in its early stages of testing however the business is very excited about its potential.

TAKEAWAYS FOR OPERATORS

Why is it important for operators to look at yielding table games?

With increasing cost of labour and competition with other entertainment providers, it is vital that casino managers have a detailed understanding of the ability to maximise yield from the product available.

The benefit of this understanding is felt at both ends through the ability to decrease costs by not having excessive labour usage, as well as having the right tables open at the right times., improving revenue.

Yield management touches on all trigger points of table games (What product should be available? When should they be open? What price point is best? How do we minimise labour leakage?) making it a key platform in building contribution growth.

What questions does an operator need to ask themselves today, to determine how well they are yielding and how much of a gap there is?

Aside from ensuring they have consistent and accurate data, they need to look at the percentage of tables that are'unoccupied','at optimal occupancy','above optimal occupancy' and 'below optimal occupancy'. Then, set targets for each game and price point, and measure the revenue/ cost gains of reaching target occupancy assuming no change to current demand.

What can a table games director do now, to realize the benefits of yield management if they don't have the resources to implement new tools like TYM?

Yield management is not a new principle and there is a lot of published work available on the topic. A table games director can employ product and labour analysts to improve their yield, make sure they have accurate data and associated tools,and most importantly educate operations staff on the science of yield management principles and benefits. Although that would be a good start, but manual approaches will only take you so far. An automated yield management tool will provide an infinitely more efficient way of delivering the benefits of yield management.

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About Sean McCreery:

Sean McCreery is the Executive General Manager of Tables Games at Crown Melbourne. Sean is a highly respected gaming executive and field specialist, having contributed in various strategic roles in casinos across Australia, including General Manager - Gaming Marketing, General Manager - Product & Strategy and Executive General Manager - Gaming Machines. Sean has an Honours degree in Economics from Flinders University.

About David Croft:

David Croft currently spearheads Table Games product and business analytics initiatives at Crown Melbourne as Business Improvement Manager. David has contributed to Crown in multiple managerial roles including Patron Analytics and Product Strategy, over a period of seven years. David's background is finance and analytics, with diverse experience spanning multiple industries including banking and telecommunications.

Crown Melbourne is Australia's leading integrated entertainment resort attracting approximately 18 million local, interstate and international visitors each year to its 560,000 square metre entertainment complex. It is one of the largest entertainment complexes in the world, featuring 500 table games and 2,500 gaming machines in a world-class facility.

The property features 1,600 guest rooms across the complex's three hotels - Crown Towers, Crown Metropol and Crown Promenade Hotel – in addition to the Palladium, which is Australia's largest ballroom, a world-class convention centre, more than 70 restaurants and bars reside in the complex, including many of Melbourne's finest, international designer boutiques, 14 cinemas, two nightclubs and a live entertainment theatre.

Crown Melbourne was built at a cost of $2 billion in 1997 and in the period 1997 to 2014 a further $2 billion will have been spent to further enhance Crown Melbourne including building Promenade and Metropol hotels, expanding the Mahogany Room and further enhancing the restaurant precinct in Crown Melbourne. Crown Melbourne is one of Victoria's leading tourism icons.

Tangam's Table Games Yield Management (TYM) is a business intelligence software tool that helps operators improve their table game mix, table spreads, staffing levels, schedules and betting minimums management.

TYM provides (i) recommendations on how to change the game mix to capture unmet profit opportunities, (ii) predictive analytics to adjust your table spread and schedules based on customer demand patterns, (iii) a spread optimizer to generate optimal schedules based on your business rules and labour constraints, and (iv) real time prompts to floor staff to open or close more games and adjust betting minimums as player demand fluctuates throughout the day.

The results are a 5%-15% increase in profitability, improved efficiency, and a ten-fold increase in productivity for your analysts. TYM offers better player experiences by providing an appropriate occupancy level for players of different games/ betting tiers and game availability to your most profitable customer segments.

Headquartered in Ontario, Canada, TYM was developed by a multi-disciplinary team of individuals who have decades of experience in software engineering, casino operations and statistics/mathematics. Since TYM's market launch in 2010 its install base has doubled every year, and now includes casino operators in Macau, United States, Australia, New Zealand and Canada.