

# WHEN TABLE GAME FEAR OVERCOMES REVENUE POTENTIAL

By Bill Zender

**Q**uiz: You offer a number of six-deck blackjack games that are subject to standard blackjack rules (including 3:2 on BJ). To achieve the best revenue potential on your games, you select the following deck penetration before shuffling:

- Deal out 3 decks; cut off 3 decks
- Deal out 4 decks; cut off 2 decks
- Deal out 4.5 decks; cut off 1.5 decks
- Deal out 5 decks; cut off 1 deck
- Deal out 5.5 decks; cut off 0.5 decks

Please read the remaining portion of the article and then decide if your answer is the most correct.

## Why are we reducing game decisions when we should be increasing them?

The more decisions your dealers achieve on your table games, the more revenue the casino can expect to produce. This is a given. My question is, why does management insist on reducing hand decisions in blackjack in order to protect themselves against the threat of card counting? Why do casino executives mandate that their blackjack games still limit deck penetration? Why don't they understand that the threat from card counters is minimal, and why aren't casino executives looking to gain additional revenue from dealing deeper in the deck? Is the fear of losing money to a handful of professional card counters so great that the executive would rather sacrifice potential revenue by cutting off more cards, decreasing deck penetration and achieving fewer hand decisions?

## Is "dealing deeper" actually better?

Back in the '90s, our management team at the Aladdin Hotel & Casino made an aggressive decision. We decided to deal deeper into both the double and six-deck games. Why? Because we understood that deeper meant better; that the more hands we dealt, the more money we would make. With nothing to lose and everything to gain,

management decided to go against the common belief at the time—that penetration in the six-deck game of blackjack needed to be limited to four, or at the most, four-and-one-half decks of cards. At that time, it was believed that any deeper deck penetration would attract hordes of card counters who, in time, would destroy your blackjack games' revenue. The industry deck penetration strategy was that moving the cut card forward in the shoe saved the casino money, and at the time, it was believed that in order to increase your blackjack game's hold percentage, you needed to limit penetration. Why did the Aladdin make the decision to deal deeper into the decks or shoe, and did it help management increase blackjack revenue?

In order to understand why management at the Aladdin made this decision, you need to understand the casino operation prior to the JMJ Inc. management team's takeover. In the summer of 1992, the Aladdin Hotel & Casino had been in bankruptcy for approximately four and a half years. The facility was considered "old and tired," and could not compete with the other hotels and resorts on the Las Vegas Strip. In addition, the management team was limited to the amount of money they could spend. With 75 percent of their startup funds used to purchase inventory, supply the cage bankroll and pay for professional and legal startup costs, management had little remaining to invest in the property. This money was quickly allocated to needed repairs and upgrades just to keep the facility from falling apart. With no money for new gaming equipment or marketing promotions, table games had to rely on being more efficient in retaining a greater portion of the live game chips purchased at the table. The good news was that management had brought in key personnel who were table-game savvy. We knew the importance of table game time and motion issues, and were very aware of the technique of card counting and advantage play, and how to protect against the professional-level counter.

## Does deep deck penetration work?

From the very first week of the takeover, the Aladdin made

changes to the two most important gaming elements to increasing live game revenue—increase the number of table decisions and improve the level of customer service. The most surprising change at that time was to increase deck penetration on our six-deck game from four decks to five-and-one-half decks. That’s correct! We increased penetration from 66 percent to 92 percent by cutting off only 26 cards. At the time, the more “risqué” casino didn’t dare move the cut card past four-and-one-half decks. Because of this change in penetration, a number of friends in the gaming business called to warn me about the perceived dangers in our decision. In turn, explained to them that there was a purpose behind this strategy, and that rest of the management team and I hadn’t gone “stark raving mad.” I explained that the actual, but minimal threat from card counting could be mitigated by a diligent staff, and that deeper penetration would generate enough additional revenue to overcome any loss in revenue from the undiscovered card counters. As it turned out, the additional revenue actually crushed any minor losses to professional level card counters.

Over the next five and a half years, the Aladdin blackjack games made lots of money. Through attention paid to achieving more table decisions and customer service, the annual hold percentage performed higher than any other casino on the Las Vegas Strip. (Aladdin blackjack hold percentage ranged between 15 percent and 17 percent during a period when the average on the Strip was 13 percent to 14 percent.) The Aladdin maintained the 5.5 deck penetration for the entire five and a half years JMJ Inc. operated the property, and never once did we regret doing it.

**Why aren’t all casinos dealing deeper?**

After conducting a casino observation and analysis of live table games as a consultant, I always schedule an exit meeting with the table game decisionmakers. While making my presentation of suggested change to increase revenue potential, I notice a lot of nodding heads and note taking. This continues until I advise them that they need to consider increasing their deck penetration in blackjack. Even though I support this suggestion with spreadsheets illustrating annual revenue gains based on factors at their casino, I lose their attention. The executives ask few questions about this subject, and generally appear relieved when the presentation moves on. Why the resistance? As a table games manager pointed out, why should he implement a procedural change that might make more money for the casino in the long term, but could cost him his or her job in the short term? If the more knowledgeable casino executive increased the deck penetration in order to maximize game revenue but the win and hold percentage took a coincidental and unrelated dip, the executive would be placing himself or herself in the “hot seat” from those in loftier positions. Why would any table games manager or department head make a decision that might put their position in jeopardy?

I’ve also seen resistance to deeper deck penetration from people who swear that increased deck penetration will have a negative effect on their games but don’t possess the mathematical mechanics to qualify their decision. I got into a heated discussion with a table games manager who basically told me that I didn’t know what I was talking about. This manager had a poor grasp of gaming statistics other than the ability to read a table game win/lose statement, and knew nothing about the mechanics of counting cards. Still, he adamantly fought any notion that moving the cut card further back in the deck was better for the casino. Another executive told me not to expect people to understand a concept that they have been told to be exactly opposite during their entire gaming career. Even though the positive revenue effect for the concept of dealing deep

into the deck can be supported by mathematics and more than five years of field trial experience, people still fall back onto what they were told during their formative period, even if it’s wrong.

*Note: As of the date this article was written, the annual hold percentage on the Las Vegas Strip is 10.5 percent (Nevada, August 2011). The number of casinos on the Strip that utilize deeper deck penetration is minimal. Please see the following list.*

Las Vegas Strip Casinos	Six-Deck Penetration
0	5.5 Decks
1	5 Decks
3	4.8 Decks
4	4.6 Decks
14	4.5 Decks
3	4.4 Decks
4	4.2 Decks
2	4 Decks

Source: Current Blackjack News; September 2011

**The best quiz answer is ...**

- e) Deal out 5.5 decks; cut off 0.5 decks

It takes at least 26 cards to finish the final round. Cutting off any additional cards is due to card counter paranoia. The belief that card counters are the casino’s biggest threat (which is far from the truth) has cost the casinos a thousand times more money through procedures limiting deck penetration. If you want to increase your games’ profit potential, use a shuffle point procedure that achieves a greater number of hand decisions. Any concerns regarding threats from card counters fall under “risk mitigation.” Take steps to bolster your defense through knowledge, not through a procedure that costs the casino revenue potential.



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