

STAND ON ALL 17'S VS. HITTING SOFT 17

By Bill Zender



There are two casino boats located in Joliet, Ill. Both casinos provide approximately 13 Blackjack games to their gaming customers. Both casinos offer similar gambling limits, number of decks and game rules. But most importantly, both casinos stand on all dealer totals of 17. I imagine the general managers from both these central Illinois operations have approached their respective executive committees about a proposed change for one of the most important rules in Blackjack. I would also imagine they were shot down by the properties' marketing factors on their bids to improve their six-deck games' performance. And what is the proposal in question? To change from standing on all dealer 17s to hitting soft 17.

Why was the proposed change shot down, might you ask? Because marketing directors from both casinos stepped in and argued against the change; marketing gurus perceive this rule change as a notice to their good Blackjack players that "We don't want good players." It's probably marketing's position that a change from standing on all 17s will chase a large portion of the bigger and most-desired players over to a local competitor. Since gaming in Joliet is highly competitive, neither property wants to do anything that may cause it to lose gambling market share.

Now we have two casinos, which are separated by only a few miles of Illinois lake water, that are staring each other down. Will one of the operations "flinch" and move to hitting soft 17 first? Like two Old West gun fighters sizing each other up, both are waiting for the other guy to give in and hit soft 17. They know that, sooner or later, one operation or the other will eventually change to the soft 17 rule (h17). Who will blink first?

This situation is based on the more common belief that the first operation to accept the challenge and start hitting soft 17 will be the one to lose. The first operation to change will be the one to chase away many of its bigger Blackjack players, who do not want to play Blackjack on soft 17 games. If it's the first to go to soft 17, the players who leave will not come back, even after the other club switches over to h17. He who moves first loses, right?

Actually, common belief is wrong. The first operation to switch to hitting soft 17 on all its Blackjack games will be the one to win. I follow this comment with an explanation of my theory about this subject, and why the casino executive with the greatest nerve, who draws first, will remain the lone gunfighter standing when all the dust settles.

How Will the Change be Perceived?

There are two types of players who will not like the h17 rule change:

- Players who perceive the change as a negative
- Players who know the rule will increase the basic house advantage by 0.2 percent

The players who perceive hitting soft 17 as a negative do so because they have heard this from other players. In many instances, once the h17 rule is placed in effect, these customers tend to like the rule. This shift in perception will start to occur the first time the dealer shows a six as the up-card and turns up an ace as his hole-card. The h17 rule allows the dealer to hit his hand, offering the player a second chance to win if the dealer happens to “bust.” This situation is now perceived as a positive. Even though a dealer hitting soft 17 will improve his hand in the long run, the players learn to appreciate the opportunity of surviving the immediate loser.

This “second chance” situation is totally lost on the Blackjack customers who know the mathematical difference. They see the rule change for what it is: a shift in the Blackjack game’s house advantage that will extract an additional 20 cents from every \$100 they wager across the tables. The only thing that will hold these players after the rule changes is their degree of brand loyalty. Even with a superior level of customer, a number of the “knowledgeable” players may still seek better rules elsewhere. Why? A reduced house advantage is more important to these players than allegiance to a specific location.

Negative Effect of the Change: Applying the 80/20 Rule

The customers who make the biggest difference in Blackjack revenue are the players who wager the most dollars. Unfortunately, these players tend to be better informed about the game of Blackjack than the lower-limit player. If an exodus of Blackjack players were to occur, it would probably come from the high-limit players.

To better examine the affect of lost business, let’s reflect on the 80/20 rule: 20 percent of the players will create 80 percent of the Blackjack revenue. While I believe these percentages are a bit aggressive for the Joliet gambling market, the 80/20 rule provides a reasonable basis from which to start a lost-revenue assumption. Assume that the h17 rule change will chase away 25 percent of Blackjack players from this stratum; we can further assume that the casino will experience a decrease in Blackjack revenue of approximately 20 percent (25 percent x 80 percent). If this assumption holds true, can the casino generate enough additional revenues from the h17 rule change to overcome the dollars that walked out the door?

Estimating an Increase in Revenue

In order to illustrate the positive affect that the h17 rule has on revenue, we need to construct a model that will project Blackjack revenue based on assumed game metrics of average Blackjack games open, average number of wagers per table, the average

number of rounds per hour, and the average house advantage. Table 1 illustrates the assumed revenues of Blackjack based on the metrics prior to the implementation of hitting soft 17.

Table 1

Blackjack Revenue Model Based on Calculation of Game Metrics	
<i>Game Metrics</i>	
Average BJ Tables Open	10
Average Number of Players	4
Average Wager	\$ 22.00
Estimated Rounds per Hour	55
<i>Blackjack Handle</i>	
Per Hour	\$ 48,400
Per Day	\$ 1,161,600
Per Week	\$ 8,131,200
Per Month	\$ 35,428,800
Per Year	\$ 425,145,600
Present HA (6D, S17, DS)	0.40 %
Player Error Effect	0.45 %
True HA for Game Type	0.85 %
<i>Blackjack Win Stand on All 17s</i>	
Per Hour	\$ 411
Per Day	\$ 9,874
Per Week	\$ 69,115
Per Month	\$ 301,145
Per Year	\$ 3,613,738
[Note: The term “handle” used in this example is not “drop.” Handle is the amount of dollars wagered across the table by the players. Generally, the amount of handle is seven to 10 times greater than “drop.” Also note that the greater the difference between the estimated amount of handle to the amount actually dropped, the greater or higher the game’s hold percentage will be.]	

Based on these metrics, it can be assumed that an operation of 13 tables with the previous variable input will win approximately \$3.6 million per year in Blackjack. Using the same variables, with exception to “Present HA” (basic house advantage), which will be increased by the mathematical gains from hitting soft 17, a second column is created, showing an annual revenue level with the rule adjustment (see Table 2).

Table 2

Comparison of Stand All 17s vs. Hit Soft 17s			
	<i>Stand on All 17s</i>	<i>Adjusted for h17</i>	
Present HA (6D, S17, DS)	0.40 %	0.60 %	
Player Error Effect	0.45 %	0.45 %	
True HA for Game Type	0.85 %	1.05 %	
<i>Blackjack Win Stand All 17s Hit Soft 17 Difference</i>			
Per Hour	\$ 411	\$ 508	\$ 97
Per Day	\$ 9,874	\$ 12,197	\$ 2,323
Per Week	\$ 69,115	\$ 85,378	\$ 16,262
Per Month	\$ 301,145	\$ 372,002	\$ 70,858
Per Year	\$ 3,613,738	\$ 4,464,029	\$ 850,291

Wow! The casino that opts to hit soft 17 will realize an increase in annual revenue of \$850,291, or a percentage gain of 23.5 percent. In actuality, this increase becomes extremely important because it is not subject to any additional departmental or operational costs, and it flows directly to the business’s bottom-line profits.

By conducting some additional calculations, a breakeven point can be established that balances loss in Blackjack revenue from the h17 rule change with the increase in revenue due to the 0.2 percent increase in basic house advantage (see Table 3).

Table 3

Breakeven Point in Between Revenue Losses and Gains		
	Stand All 17's	Hit Soft 17 Adjusted
Before h17 Change	\$ 3,613,738	
After h17 Change	\$ 2,923,842	\$ 3,611,805
% of Loss in Revenue	19.1 %	
% of Gain from h17		19.0 %



Based on this table's conclusion, either Joliet casino will be better off hitting soft 17 if it loses less than 25 percent of its better Blackjack customers, and worse off if the loss exceeds the 25 percent level. In regard to this information, can either casino really profit from the h17 rule change? Will its loss in better Blackjack customers really exceed 25 percent? That sums up the crux of the problem, doesn't it?

Further Assumptions to Consider

Will losing 25 percent of the higher-limit Blackjack players really cost the casino 20 percent in lost Blackjack revenue? Let me suggest a real life answer to this question: No. I don't believe the casino will lose 20 percent of its Blackjack revenue if 25 percent of its better players go over to the competition due to the rule change. First, what players would the casino actually lose? The players they would lose are Blackjack players who possess a better understanding of the game and how it should be played. This means these customers probably know and use basic strategy. If these players have the ability to lower their "player error effect" by half, from 0.45 percent to 0.23 percent, their departure will have much less affect on revenue. For instance, a 25 percent loss in higher-level, but more intelligent, Blackjack customers might limit the loss in revenue to possibly 15 percent. The rule change might just purge the casino of some of the tougher players and, by the way, chase them to your immediate market competition.

Another factor to consider is the loss of tougher players on casino comp expenses. In many situations, the more knowledgeable Blackjack players also know how to work the "comp game." Will the loss of these higher-limit, but casino savvy, customers lower the level of reinvestment expenses? Could comp expenses experience a reduction of similar magnitude as might revenue? If this theory holds true, the migration of Blackjack customers to a competitive

property could also carry away a percentage of the casino's borderline comp burden. A reduction in expense might be realized, especially if the casino's marketing department fails to increase the percent of house advantage, thus increasing the rate of theoretical win earned from the h17 rule changes.

He Who Draws First Wins

Based on the information developed on this topic, the following list of assumptions about the object casino's switching from standing on all 17s to hitting soft 17, in my best estimate, should represent the real-life outcome of this gaming situation.

The casino will lose less than 10 percent of its higher range-limit players because of the rule changes, and a smaller percent if it has a solid customer service program in place.

Losses in Blackjack revenue from an initial player exodus should not exceed 5 percent. Most of the Blackjack customers lost will be knowledgeable and tough players.

Net gain in Blackjack revenue between the loss in play and the increase in win from the rule change should be approximately 15 percent above the previously calculated Blackjack revenue prior to the rule change.

Initially, there should be a slight drop in player reinvestment cost with the savings available for use on other, and probably better, casino players.

I don't believe there is very much of an argument that remains. The first casino in Joliet to switch to hitting soft 17 will come out on top of this Blackjack confrontation. It will eventually put more revenue to the operation's bottom line while purging its operation of a portion of its tougher Blackjack players. At the same time, it will send these more-knowledgeable players to its immediate competition, which will be saddled with harder-hitting players, higher comps and the lower "stand on all 17s" win rate.



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