

Entertainment Centric Gaming

Welcome

In this document we will examine how time plays an important role in revenue production, both historically and present day, but more importantly potential impacts casino operations are facing today. The primary focus is marketing's use of Free Play and Slot Operations movement to reshape the casino floor landscape with heavy emphasis on Bonus Themed or Entertainment Centric Gaming Devices.

Not only will we explore good and bad points of both, but strategically develop an operational game plan that once executed will support future growth and expansion of both items.

Introduction

Before we get started in this discussion on the value of time as it relates to slot operations and marketing, I want to introduce a new value **not** included in player tracking and slot information systems that **do** have an impact on your gaming revenues. This hidden value is closely related to the use of Free Play and introduction of Slot Machines that include bonus features.

First, let's discuss the bonus feature and what value it offers to the casino and more importantly the casino guest. The bonus feature is part of the internal math of the machine, which basically means that the out-come of the bonus round is predetermined to maintain the manufacturers expected hold of the game.

In slot gaming, particularly games of chance, the out-come of each spin are pre-determined once the bet button is pushed. In saying that, if a guest initiates a game by pushing the bet button, the game out-come which includes a bonus round is automatically selected with a total amount of the payout. The bonus round may have several free spins but the total accumulated payouts for each free spin is displayed as a total for the bonus round.

This is the same with all games where a single wager, single win event occurs. The total sum of the bonus round is then added to the win of the original spin that triggered the bonus feature as a single win. It's all in the math of the game!

From a customer's perspective, the bonus round is a second chance to possibly win more money! Some customers will hit the stop button periodically while in a bonus round believing that they can alter the outcome of the game while others have their own unique methods making this form of gaming more popular when customers believe that they play an important role in their own winning events...much like games of skill.

From a finance view, the time allotted to patrons sitting in front of these devices while waiting for the bonus feature to conclude is lost time-on-device which has a negative effect on gaming revenue.

The up-swing for the slot department is the higher hold percent the customer is player generating improved W/D/M.

The downside for the marketing department is that rated and non-rated players are spending less time-on-device substituted by time-at-device.

History

Pre-Player Tracking

Extending time-at-device through the insertion of casino marketing dollars into their own slot machines has been a tool of choice for many years prior to the development of bonus themed games. Free play pre-dates player tracking systems where casino executives would periodically offer customers cash to continue playing their favorite machines when the player experience fell short of guest expectations much like a complimentary amenity.

One such notable event to aid in the growth and popularity of slot machines was engineered by a casino owner that filled a wheelbarrow full of quarters and armed with a security escort pushed it through the casino dumping free quarters into the slot machine coin trays attached to each machine where a customer was playing while thanking the patrons for playing in his casino. News quickly spread of the free play event and customers responded positively with free word of mouth about the event.

Prior to the addition of tracking systems to monitor expenses, casino operators primarily focused on increasing activity while generating positive word of mouth to grow their slot business without extensive data crunching to determine profitability.

As a Caveat to this form of free play

A problematic issue that surfaced during these periods was double taxation. The coins issued to the customers via the marketing event had already been taxed and once inserted through the machine became part of the revenue for the game and taxed again once accounted for in the drop and subsequent accounting of slot win. Internal reviews of the time classified the expense of free play as the cost of double taxation!

System Free Play

With the development of Player Tracking systems in the late 1970's to early 1980's, a new breed of free play begins to evolve in the form of recognition rewards or rebates called "Cash Back"!

Cash back simply accounted for the player's coin-in activity and rebated the customer a set percentage of their play. Casino's touted cash back as free money allowing customers to play longer on their gaming devices while attempting to entice customers to sign up for their player tracking reward clubs. The reward mechanism spawned the introduction and value of points.

Prior to cash back, gaming customers received their normal complimentary amenities of room, food, and beverages. Cash back was an added value feature supporting continued play when the customer's wallet was empty.

Caveat

Cash back issued through the players club was in the form of CASH being returned to the customer and for the most part untraceable by the casino attempting to understand the net effect of the marketing tool. Double taxation continued its problematic path in reducing bottom-line revenue and analytical tools did not exist to provide detail of the transactions.

Once the explosion of Ticket-In / Ticket-out technology (TITO) eclipsed the slot gaming floors replacing coin as a wagering vehicle, the development of bar coded tickets supporting the next wave of free play known today in the form of EFT (Electronic Funds Transfer) is established.

Technology to track free play is introduced as a marketing module allowing casino companies to issue free play to their patrons in the form of non-cashable credits for *play only* credits at the game of their choice. The non-cashable tickets having no cash value solved the double taxation problem and offered a complete analysis of how the credits were spent resolving past discussions on value and use.

Free play has been a part of the casino marketing landscape for a very long time providing casino patrons an entertaining experience by extending:

- First, time-on-device when free play was considered to be and treated as cash,
- Second, time-at-device once free play evolved into the non-cashable item it is today.

Gaming Industry Time – Slide 6

- What is time worth to the average casino?
- Is it just time or occupancy as well?
- What about restricted time when the gaming device is disabled from coin-in activity?

Discussion Summary

What is "time on device" versus "time at device"? What effect does either have on a customer's ADT (Average Daily Theoretical) if any?

For clarity purpose in its simplest terms:

- “Time on device” is the amount of time a customer spends gambling without interruption. The average amount of time it takes to wager and activate the game play for a video poker is 3 seconds while a reel machine is 4 seconds. Until recently, bonus enabled gaming devices were not available in the video poker themed devices until the addition of a bonus spinning wheel was introduced which changed the “time on device” for these devices as well.
- “Time at device” is the amount of time a customer occupies a gaming device when no wagering is capable. The terminology for capable is that the gaming device must be in a mode which allows the customer to wager. When gambling on a bonus enabled gaming device, the period of time the customer is engaged in a bonus round locks out the capability to wager which creates the term “time at device” as there is no further wagering during the time allocated to the entertainment feature.

In review, with the development of entertaining slot devices, time becomes an important equation in reviewing customer activity related to past performance and gambling activity time previously recognized by way of player tracking systems.

The main question revolves around our current methodology and algorithms utilized in marketing business intelligence software and their capability (or lack of) to extract and report time the gaming equipment is engaged in a bonus round.

The primary reason for the non-existence of this form of reporting is that current tracking systems do not have the capability to extract this data for reporting purposes. In theory, as equipment continues to evolve into primarily entertainment driven devices, total time (time-on-device) must be extracted from the entertainment time (time at device) prior to assigning a customer ADT.

Bonus Themed Gaming Devices - Methodology

The methodology utilized in establishing an average time bonus enabled games are in their entertainment mode was derived from viewing a series of 4000 videos recorded and published on the website YouTube.com by various gamblers playing a variety of manufacturer themed games in various casinos over a two year period.

The total sum of recording time divided by the number of videos equated to an average 2 min 37 sec from beginning to end for each recorded event. For the purpose of this document, calculations related to the net effect on time as casino floors continue to evolve into entertainment centric operations utilizes the 2 min 37 sec value when calculating *time at device*.

Time Analyzer – Bonus Games

As an example:

A customer that historically plays a non-bonus featured game spending an average:

- 2 hours per day gambling,
- wagering an average eighty-cents per handle pull, with
- an average handle pull every 4 seconds
- on a 7% hold machine,
- is expected to create an expected Theoretical Win Per Day of \$101.50 as noted in the example below.

Non-Bonus											
Coin-in	Hold %	Speed/Sec	H/Min	Avg Wager	Rev/Min	Rev/Hr	T-Hands	CI /HR	T-Sec	T-Min	T-Hours
\$ 1,450.00	7.00%	4	15	\$ 0.80	\$ 0.84	\$ 50.40	1812.5	\$ 720.00	7250	120.83	2.0
Expected Rev	\$ 101.50										

Chart 1

The same customer switches to a bonus themed game while continuing to play:

- 2 hours per day,
- wagering eighty-cents per handle pull, with
- an average handle pull of 4 seconds (without a triggered bonus feature), and
- an average 5.4 seconds between average handle spin time with a 2 min 36 sec bonus featured triggered per 100 handle pull average
- on a 7 % hold machine,
- is expected to create an expected Theoretical Win Per Day of \$74.90 as noted in the next chart.

Bonus Feature											
Coin-in	Hold %	Speed/Sec	H/Min	Avg Wager	Rev/Min	Rev/Hr	T-Hands	CI/HR	T-Sec	T-Min	T-Hours
\$ 1,070.00	7.00%	5.4	11.0755806	\$ 0.80	\$ 0.62	\$ 37.21	1337.5	\$ 531.63	7246	120.76	2.0
Expected Rev	\$ 74.90										

Chart 2

In Chart 2, given the 2 hour rule, the customer coin-in drops by 26.2% or \$380 due to the reduced number of expected handle pulls declining by 26.2% or 475 resulting in a reduction of Theoretical Win based on total Coin-In multiplied by Hold %. The added time of 1.4 seconds added to each handle pull is also a 26.2% increase in the amount of time between handle pulls which has a negative effect on coin-in, handle per minute, revenue per minute, revenue per hour, and total number of hands.

In theory, providing free entertainment via a bonus featured game has a negative net effect on game revenue performance due to reduced time-on-device activity. The player ratings would also realize a negative impact by playing bonus enabled games even though their time on the casino floor would continue to be consistent with past performance. From a customer's perspective, the time spent at the casino each day would be consistent yet due to the nature of the time allocated to the bonus feature their gaming performance would decline.

Coin-in	Hold %	Speed/Sec	H/Min	Avg Wager	Bonus Feature						
					Rev/Min	Rev/Hr	T-Hands	CI/HR	T-Sec	T-Min	T-Hours
\$ 1,450.00	7.00%	5.4	11.0755806	\$ 0.80	\$ 0.62	\$ 37.21	1812.5	\$ 531.63	9819	163.65	2.7
Expected Rev	\$ 101.50	26.2%									

Chart 3

In reality, the customer playing this new game would have to extend their gaming time by 43 minutes (shown in Chart 3) to gain the same theoretical rating of the past. The math for this review is complex and not easily understood by marketing departments and in many cases the slot departments nor the customers themselves. The question in many marketing meetings is how to extend the time needed to increase the worth of the customer? A major question that should be posed might be, is it possible?

Time Analyzer – Raised Hold

In order to offset the decline in ADT and revenue, machines with bonus features begin to realize new math with increased hold as noted below in Chart 4.

Coin-in	Hold %	Speed/Sec	H/Min	Avg Wager	Bonus Feature						
					Rev/Min	Rev/Hr	T-Hands	CI/HR	T-Sec	T-Min	T-Hours
\$ 1,070.00	9.50%	5.4	11.0755806	\$ 0.80	\$ 0.84	\$ 50.50	1337.5	\$ 531.63	7246	120.76	2.0
Expected Rev	\$ 101.65										

Chart 4

In Chart 4, as a quick solution to the lagging theoretical win, the slot department increases the hold percent by 26% to compensate for the coin-in decline of 26% supporting an equal theoretical win prior to the addition of the bonus feature enabled game. A common effect of increasing hold percent is the reduction of coin-in which when calculated correctly reduces the time at device. Comparing chart 3 to chart 4, hold percent is increased from 7 percent to 9.5percent, as a bi-product time on device declines by 43 minutes.

Caveat

The solution for improving the gaming theoretical win via increased hold percent initiates further reviews as to the overall cause related to the initial decline.

Furthermore, the 26% increased hold percent as noted in Chart 4 merely compensates the slot revenue for the 26% increase in time between handle pulls generated by bonus enabled games offering no additional revenue to compensate for the capital expenditure to acquire the equipment which the marketing department requires to increase market share through improvements to that gaming product.

The balancing act to maintain a solid customer base expecting to receive equal or greater benefits for time-on-device (both rated and non-rated) gains in complexity with time as an element impacting all customers play activity.

As stated earlier, the marketing departments focus is to increase visitation from 20% of the customer base that generates 80% of the slot revenue and focus relationship marketing towards their target market. On the other hand, the slot department is focused on meeting (or exceeding) financial objectives outlined in the company's business plan and financial projections known as "The Budget". In most cases, the slot department submits an annual capital expenditure request for executive approval with a detailed R.O.I (return-on-investment) schedule detailing revenue improvements based on new gaming device acquisitions and marketing projections.

Both departments follow the same path in their quest to meet financial projections but with different analytical tools to measure their own independent results. One of the main metrics utilized by the Slot department is "Win per Day per Machine" or W/D/M while the Marketing departments key metric is Average Daily Theoretical or ADT. Both departments record the value of theoretical versus actual results in reporting positive and negative results.

A key point that divides the line between marketing and slot operation agendas falls into the area of game knowledge. Both, Slot and Marketing departments have independently added gaming device and customer enhanced features in the past few years that have changed previous analysis methodology and calculations once used to determine positive and negative results.

The explosion of penny and multi-denomination devices with bonus enabled features offered slot departments the capability of delivering an entertaining gaming device tailored to keep customers sitting at the machines longer...or at least that was the original idea. The added bonus feature is an entertainment feature which has no positive or negative impact to revenue since wagering is not allowed during the time the machine is delivering the results of the triggered bonus round.

Player tracking system development of a free play module (systems download of promotional credits to an electronic gaming device) is utilized as a tool by marketing departments to extend time-at-device by rewarding customers with additional time on the machine using credits issued by the player tracking system and loaded directly to the slot machine of the customer's choice. Credits issued through the system are treated the same as cash played incrementing the coin-in meter and subsequently adding additional coin-in to the game. Free play is not treated as cash in the accounting of drop or revenue though which has a negative effect on the games hold percent.

A standard calculation for review of hold percent is:

$$\text{Win} / \text{Coin-in} = \text{Hold\%}$$

Hold percent is utilized to determine how much money the customer is expected to lose per total amount of their wager. Prior to free play being introduced to the equation, the customer only gambled with their own cash entered into the slot machine. Once free play is injected into the equation, while the standard equation is still utilized to calculate hold, the net effect of hold reflects a negative change in value.

Effects of FREE PLAY

In further review of the positive and negative aspects of free play, it should be noted that free play provides increased *time at device* much like bonus features. Marketing departments rely on the free play tool to drive incremental and new business to the properties. The downside of using free play is:

- generates false coin-in created by the companies own money,
- false coin-in generates additional benefits through carded play,
- added coin-in with no revenue has a negative effect on hold percent,
- additional free *time at device* increases false occupancy in the casino, and
- additional free *time at device* is further compounded on games with bonus triggered events that when aggregated fuels increased *time at device* reducing *time on device*.

In order to fully realize the net effect on time and expected financial results, this campaign builder was constructed to highlight net results when **free play** is combined with **bonus enabled** games.

Casino Marketing

R.O.I Slot Campaign Builder

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Calculate Results
Clear Form
Example of Data Input

Select the buttons above to Clear the form - input Example data - Calculate results

Cash Only Play

White boxes accept data input - Yellow boxes are protected as they calculate results

Type	Drop	Hold %	Coin-In	Wager	H/Sec	H/Min	Win/Hd	Theo W/Hr	Min/Device	Ttl Hands	Theo Win
Rated Play	\$435	7.00%	\$1,450	\$0.80	5	11	\$0.056	\$37.33	163	1,813	\$102
Non-Rated	\$0	9.00%	\$0	\$0.80	4	15	\$0.054	\$48.60	0	0	\$0
Combined	\$435	7.00%	\$1,450	\$0.80	5.40	11.11	\$0.056	\$37.33	163	1,813	\$102

Free Play - (Rated Play Reinvestment)

Calculates cost and benefits of Freeplay as Coin-in and Time - Theo Win represents lost revenue opportunity due to Free Time on Device.

Type	Free Play	Hold %	Coin-In	Wager	H/Sec	H/Min	Win/Hd	Theo W/Hr	Min/Device	Ttl Hands	Theo Win
Rated Play	\$10	7.00%	\$51	\$0.80	5	11	\$0.056	\$37.33	5.71	63	\$-3.55

Type	Point\$	Food\$	Beverage\$	Room\$	Retail\$	Trans\$	G Tax\$				Promo Exp
Expense	\$-0.15	\$-0.14	\$-0.14	\$-0.14	\$-0.04	\$-0.04	\$-0.28				\$-0.93

Combined Cash and FreePlay

Type	Drop	Hold %	Coin-In	Wager	H/Sec	H/Min	Win/Hd	Theo W/Hr	Min/Device	Ttl Hands	Theo Win
Combined	\$435	8.76%	\$1,501	\$0.80	5	11.11	\$0.054	\$36.07	169	1,876	\$102

Illustration 5

The first part of the program defines expected results from cash play on a bonus themed game with an average handle per second of 5.4 seconds. In this example, the time necessary to complete \$1,450 coin-in to achieve a \$102 Theoretical Win requires 163 minutes or 2 hours and 43 minutes. The second part of the program assumes the expected cost of Re-Investment based on the parameters located in the next illustration which includes free play at 10%. The section labeled "Combined Cash and Free Play" illustrates the reduced actual hold percent once free play is introduced.

Marketing Re-Investment based on Theoretical Win											
Type	Free Play	Points	Food	Bev	Room	Retail	Trans	G Tax	Expense	TBD	Margin
Percent	10.00%	0.300%	4.00%	4.00%	4.00%	1.00%	1.00%	7.80%	24.30%	\$0.00	69.50%
Rated \$	\$-4	\$-4	\$-4	\$-4	\$-4	\$-1	\$-1	\$-8	\$-31	\$0	\$71
Non-Rated \$	NA	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0

Illustration 6

Once free play is applied the combined cash and free play section defines expected net results. As discussed earlier, free play has no negative effect on Theoretical Win, yet does have an impact of actual hold percent and cost of re-investment marketing through increased coin-in. The

marketing re-investment chart above defines the cost of added benefits awarded to the gaming customer through issued free play.

In illustration 5, \$10 free play was issued to a customer who generated a casino net result of \$102 Theoretical Win which when played, generated an additional \$.65 in expense and loss of \$3.55 in revenue as represented in illustration 6. Once taxes are applied to cost of goods, the total expected cost is estimated at \$.70. Hypothetically, the expected total cost of free play is \$4.20 per every \$10 of free play issued when combined with lost time-on-device. When combined with cash play in illustration 5, the total re-investment expense is estimated at 24.30% of Theoretical. Tangible items the customer would realize such as points, food, beverage, room, transportation, and retail amounts to \$.70 or less than 1% of theoretical win. A non-tangible item added to the equation is the potential loss of revenue due to time allotted to play the \$10 of free play which is estimated at \$3.55 for 5.71 minutes of play time. Issuances of tangible amenities purchased for distribution are labeled “hard cost” while non-tangible items such as time are identified as “soft cost”. In actuality, the actual cost of free play in this scenario is \$.70 hard cost while providing an additional 5.71 minutes of time-at-device to aid in improving occupancy.

Wide spread misuse of free play can have a major impact on gaming revenues and profitability while improving coin-in and occupancy. As you will note, the software calculates the time at device as a negative number since marketing dollars issued for free play has (in theory) a negative effect on revenue. It is important to recognize that if all machines were occupied by customers playing only free play, the casino would generate coin-in with absolutely no revenue causing a negative result much the same as if all the machines were shut down.

FREE PLAY – ADT EFFECT

To further illustrate the free play erosion of actual versus theoretical hold, chart 5 reflects the additional coin-in created via \$10 increments of free play with resulting outcome of Actual Hold % decline which has no net effect on Actual Win, yet impacts expected Theoretical Win. One complicated equation for a slot department is regulatory in nature requiring slot managers to review and investigate variations in PAR (Manufacturer Expected Hold Percent) versus Actual Hold on a monthly basis which is directly impacted by casino marketing’s use of Free Play. To understand the impact, slot analysis systems must be able to attribute the total amount of coin-in generated by free play and extract the amount from cash play to provide an accurate hold % for each gaming device.

Drop	Coin-in	Freeplay	PAR	Hold %	Hold Diff	CI Diff	Theo Win	Actual Win
\$ 435.00	\$1,450.00	\$ -	7.00%	7.00%			\$ 101.50	\$ 101.50
\$ 435.00	\$1,501.00	\$ 10.00	7.00%	6.76%	-3.43%	3.40%	\$ 105.07	\$ 101.47
\$ 435.00	\$1,552.00	\$ 20.00	7.00%	6.54%	-6.57%	6.57%	\$ 108.64	\$ 101.50
\$ 435.00	\$1,602.00	\$ 30.00	7.00%	6.33%	-9.57%	9.49%	\$ 112.14	\$ 101.41

Chart 5

It is important to have a firm understanding of the impact on Expected Hold percent prior to establishing a free play re-investment program to mitigate internal discussions on declining hold percent and hypothetical lost revenue using the Expected Hold versus Actual Hold percentages. From a pure accounting aspect, with increasing coin-in and no change to the overall floor PAR, the gaming devices are expected to post improved Actual Win. Since free play does not generate drop, the results of free play have no effect on the Actual Win. This same scenario has a potential impact on slot department projections for R.O.I (Return On Investment) on new product acquisitions that fail to meet financial projections due to high volume use of free play.

Taking this scenario into account, free play has a positive impact on coin-in which increases the customers gaming experience through extending time-at-device while offering an opportunity to win free money through free play. Prior to the evolution of bonus enabled games introduced in the late 1990's, free play was primarily the only time-at-device positive experience customers enjoyed. Other time-at-device events included coin-jams, hopper fills, machine malfunctions which had a negative effect on guest experience often resulting in issuance of complimentary benefits to offset this form of negative time-at-device experience. Once TITO devices were installed and coin removed, previous coin related negative events disappeared. The removal of coin and subsequent problems related to the use of coins aided future slot machine growth while replacing time-at-device with time-on-device.

The customer's ADT (Average Daily Theoretical) when including free play realizes an increased value as well which is noted in Chart 5's Theo Win. Player Tracking systems account for total coin-in achieved by the player and calculate the results against the slot machines PAR to determine the expected revenue. Each gaming day, the system calculates the end results of the customers weighted play activity on all gaming devices to establish the players Average Daily Theoretical value based on the following equation:

$$\text{Total Coin-in} * \text{Manufacturers Hold Percent} = \text{Theoretical Win}$$

Typically, an ADT calculation establishes what value the customer represents to the casino for future marketing programs. Chart 5 hypothetically suggests that a customer who deposits \$435 into the drop will generate \$1,450 coin with no free play is equivalent in value to the customer that deposits the same amount of money into the drop yet is awarded \$30 in free play generating \$1,602 in coin-in. Even though the ADT of the first customer is \$101 and the second is \$112, the actual revenue for both is expected to be the same at \$101.

An assumption might be made that if the marketing department is tailoring campaigns based purely on customer ADT portfolios pitted with free play activity, an over-statement of expected revenue results will flaw the pre-forma net results while possibly neglecting customers having lessor theoretical value yet equal actual value.

Another adverse effect of improper accounting of free play extends to the slot departments annual budget which is partially driven by marketing expectations of future campaign expected results. Noting the adverse reporting effect of free play in a customer's portfolio, campaigns tailored toward customers in an ADT range of \$100 - \$120 could actually result in an actual range of \$90 - \$100 or lower depending on the amount of free play issued to the selected group.

Time is another contributing factor compounded by the development of entertainment centric bonus games with added value free play. In order to minimize the negative net effect of free play, it is important to understand the relationship of time between handle pulls, average wager, and total coin-in.

Time-on-device is calculated as:

$$\text{Total Coin} / \text{Average Wager} = \text{handle pulls (Games Played)}$$

Time is a critical revenue sensitive issue in the gaming industry noting age group segmentations that historically have more or less time to gamble based on external non-gaming related events such as family, work, travel, sleep, socialization and a host of others.

Noting these variables, the casino department's goal is to maximize gaming time while the customer is visiting the property. To aid in maximizing the customers on-property time towards gambling, casinos invest heavily in providing internal signage directing customers towards specific denominations, type of games, large jackpots, dining amenities, restrooms and other guest experience venues. Slot departments continually analyze their floor layout arranging equipment and traffic patterns to further maximize a casino patron's utilization of the product.

Prior to the wide spread utilization of electronic free play and bonus enabled gaming devices, maximizing time on device was a simple equation of keeping the customer happy and providing a safe, clean and comfortable environment. The happy equation was a responsibility of staff members assigned to the department assisting the customers with their questions, concerns, or complaints while generating a relationship at the same time.

As technology advanced, slot machine reliability improved requiring fewer staff members to support. TITO replaced coin eliminating coin handling personnel and marketing promotions became automated communicating earned benefits to customers while directly seated at their favorite machine.

The effect of free play on an organization appears to have further positive and negative ramifications than just time-at-device and expanded coin-in requiring in-depth analytical reviews related to the use of this marketing tool on various types of equipment which no longer is simplistic in calculating its average time between handle pulls.

Bonus vs Non-Bonus Time

Questioning the net effect of free play when utilized on bonus featured games paints yet another scenario where slot operations and slot marketing operate independent time-at-device campaigns simultaneously without conclusive results due to lack of analytical tools designed to interpret each variable or characteristic of today's gaming device profile.

Drop	Coin-in	Freeplay	PAR	Hold %	Hold Diff	CI Diff	Theo Win	Actual Win
\$ 435.00	\$ 1,450.00	\$ -	7.00%	7.00%			\$ 101.50	\$ 101.50
\$ 435.00	\$ 1,501.00	\$ 10.00	7.00%	6.76%	-3.43%	3.40%	\$ 105.07	\$ 101.47
\$ 435.00	\$ 1,552.00	\$ 20.00	7.00%	6.54%	-6.57%	6.57%	\$ 108.64	\$ 101.50
\$ 435.00	\$ 1,602.00	\$ 30.00	7.00%	6.33%	-9.57%	9.49%	\$ 112.14	\$ 101.41

Time effect Bonus Game

Wager	Hands	H/Sec	H/Min	H/Hr	Hours
\$ 0.80	1813	5.4	11	667	2.72
\$ 0.80	1876	5.4	11	667	2.81
\$ 0.80	1940	5.4	11	667	2.91
\$ 0.80	2003	5.4	11	667	3.00

Time effect Non Bonus Game

Wager	Hands	H/Sec	H/Min	H/Hr	Hours
\$ 0.80	1813	4	15	900	2.01
\$ 0.80	1876	4	15	900	2.08
\$ 0.80	1940	4	15	900	2.16
\$ 0.80	2003	4	15	900	2.23

Slide 13

Data contained in Slide 13 provides further analysis of time on device variance due to time allotted for bonus feature enabled devices. As you will note, free play has no positive or negative effect to Actual Win, yet conversely has an effect on theoretical win utilized by slot marketing to illustrate its efforts and campaign segmentation criteria.

Slot marketing strategy traditionally uses the player's theoretical value when calculating a re-investment schedule which as noted, is exaggerated based on the addition of free play. While free play has no immediate impact of actual revenue, it is clear that free play does have an impact on increased cost of amenities and expected financial results which will most likely fall short of expectations.

In this slide, we realize the estimated amount of time required to achieve \$1,450 coin-in on a non-bonus game compared to a bonus themed game. A customer playing a non-bonus game requires 2 hours to achieve a \$1,450 coin-in while the customer playing the bonus themed games requires 2 hours and 43 minutes to achieve the same results. The additional time allotted for \$10 of free play on a non-bonus themed game is expected to increase time-at-device by 4 min 12 sec while the same \$10 free play on a bonus game is expected to increase time-at-device by 5 min 43 sec.

A common solution to reduce time-on-device is through increasing hold percent. Due to the extended time utilized for entertainment in bonus enabled games, the hold percent of the game would have to increase to compensate for time-at-device which alternatively reduces coin-in and time-on-device.

Mathematically, the percent of hold percent increase will similarly reduce the nearly exact same percent of coin-in. If hold percent increases from 7 % to 12%, which represents a 41.67% increase, coin-in is expected to decline by 41.67% as well. The math necessary to blend the correct values of hold percent increase is not simplistic when blending the value added free play into the equation due to false coin-in generated through free play.

To compound the issue further, as hold percent increases so does ADT of the customers playing those devices using free play. As you will note from Bonus Value Worksheet 2, the 41.67% increase of hold percent created a decline of 41.67% in coin-in reducing time-on-device to 95 minutes. The theoretical win per hour increases the ADT of the rated customers and re-investment value. The customer now spends less time in the casino, gains greater ADT value over a shorter period of time, and occupancy is impacted by reducing time-on-device.

These illustrations reflect the current cannibalization and reduction of non-bonus themed games in the nickel and quarter denomination (7% Hold) replaced by entertainment centric penny gaming devices (12% Hold). As noted, the use of free play is utilized to increase impacted coin-in and occupancy due to the increased hold percent of penny bonus themed games. One problematic issue that continually surfaces is the cost of free play. Without free play to offset the higher hold percent generated by entertainment devices, further impacts in occupancy (in theory) would provide less than favorable reviews from gaming customers noticing a decline in gaming activity.

Potential Impacts

- Time-at-device is one common characteristic for both bonus enabled gaming devices offered by the slot department and free play issued through slot marketing that have potential revenue impacts on both net and gross gaming revenue generated through the slot department.
- Gaming patrons available time to gamble is yet another potential area of impact noting the time difference while playing traditional non-bonus themed games versus bonus enabled games to achieve the same results.
- Hold percent increases to offset extended time-at-device generated through bonus featured games trigger higher false ADT's when free play is utilized.
- Non-Rated play is impacted through higher hold percent devices that receive no value through slot marketing's free play program.
- Free play must increase to compensate for higher hold percent and reduced time at device

In the event free play is issued in greater increments than necessary to compensate for reduced time-at-device through increased coin-in, the value above the offset point is wasted time-at-device and added cost in amenities that would not normally be awarded resulting in further erosion of potential revenues.

Gaming systems do not clearly define the relationship of bonus features and what long term impact entertainment centric gaming devices will have on future results or how to apply

marketing incentives such as free play to offset declining coin-in or hold percentages. The overall process is complicated requiring a review covering each aspect of slot operations, slot marketing, and finance to clarify potential positive and negative pitfalls moving forward.

Both time-at-device products if managed correctly offer gaming operations the ability to provide an entertaining environment while recognizing their customer base with added free play amenities if blended correctly to maximize the full potential of their customer base. In order to understand the process of blending so as not to under or over utilize the free play amenity, a complex review of the gaming product and player activity is required with an understanding that the end result will properly match the customer to the game of choice and what effect the game has on the customers ADT once free play is awarded.