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**SPSS Assignment**

*MGM Grand Customer Analysis*

1. *Find the minimum, maximum, mean, and sum for 2002 Total Theoretical win and 2002 Total Actual win for this sample of customers.*

![Table

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Based on the game played, average bet, and time spent in the casinos, MGM

Grand’s total theoretical winnings in 2002 had a minimum of $0.00 and a maximum

of $1,949,796.70. The sum of theoretical winnings is $9,156,886.94 and mean is

$1,938.79. The total actual winnings of MGM Grand include a minimum of -$510,100.00 and a maximum of $3,011,500.00. The sum of actual winnings is $10,180,257.40 and the mean is $2,155.46.

1. *What is the average 2002 theoretical win for each decile? What percent of total 2002 theoretical win does each decile account for?*

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Based on the game played, average bet, and time spent in the casinos, MGM

Grand’s total theoretical winnings in 2002 average are listed in the “Mean” column with $17,413.33 in the 1st decile and average of $0.87 in the 10th decile. The 1st decile accounts for 89.8% of the total 2002 theoretical win for each decile while the 10th decile accounts for less than 0.0%. As decile ranks increase, so does theoretical win average and total percentage.

1. *How does the average number of trips (in 2002) vary by decile?*

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As the 10th decile approaches the higher decile of 1 containing the best customers, the average number of trips in 2002 steadily increases. Therefore, we can say that the best customers for MGM Grand with higher theoretical winnings tend to take more trips to casinos and gamble more.

1. *Create a variable to capture the table theoretical win as a % of total theoretical win.* *How does this vary across the deciles? What does this imply?*

**![Table

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Across deciles, the table theoretical winnings steadily increase as we go from the bottom decile to the top decile. The average table theoretical winnings are 44.99% in the 1st decile and 5.14% in the 10th decile. This means an average of 44.99% of theoretical winnings were played at a table in the casino, out of all other games. We can imply that the majority of theoretical winnings are made by players at tables in higher deciles and those players play more table games as deciles increase.

1. *What do these variables reveal about segment membership in 2002 and 2004, and over time?*

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In 2002 and 2004, the majority of players belong to segment “$0 - $500” while the number of players slightly decreases as the theoretical win in each segment increases. This means that the biggest bettors are the smallest slice of the total population of customers at casinos. Around 52.8% of players did not return in 2004 compared to the 2002 numbers. Over time, we can see who the most loyal customers are to MGM Grand casinos. From 2002 to 2004, only 2 customers in the “$10,001 - $100K” segment and 3 customers in the “>$100K” segment did not return to casinos in 2004. Whereas the two lower segments do not retain as many customers who do not bet as much over the years.

1. *What does the information about Total Comps reveal? Is this consistent with the information in the case?*

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Total Comps can be defined as the total amount of money spent on complimentary services or items by MGM Grand for a customer. The information about Total Comps reveals that customers placed in higher segments, which are segmented based on the amount of theoretical winnings a customer earns for the casino, typically will earn more complimentary items and services from casino hosts. We can see that as the dollar amount of each segment increases, so does the average dollar amount of comps awarded to customers.

Yes, this analysis is consistent with the information in the case because the case states that casino hosts target customers who are above the comp line and classified as whales, high rollers, or lower-level gamblers with comps to earn loyalty and profits. Generally, gamblers spend more money on games and casino activities when enticed with comps, and as a result, those high-spenders make up around 2.4% of the casino’s most theoretically profitable customers in the “$10,001 - $100K” and “>$100K” segments.

1. *Report one more analysis of your choice and summarize the results.*

![Chart, bar chart

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This bar chart shows the average table and slot winnings for each age group of

gamblers that visit MGM Grand casinos in 2002. We can see that as customers grow older in age, they tend to generate a higher theoretical win in both table and slot games. With table games such as blackjack and roulette trumping over the slot games in popularity among categories, especially for those over 65 years of age holding an average of $5,249.87. The average win for table games is rather steady from ages 26 to 65 years of age, excluding those 25 and under. We also see that the older age groups gamble more compared to those 25 and under.