Mille Lacs Corporate Ventures

MSBA 6410 - Section 92

Group 1

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Background

Mille Lacs Corporate Ventures strives to improve the quality of life for the members of the Mille Lacs Band and those in their community. They want to be a force that improves businesses and communities by infusing passion and ideas. MLCV invests in gaming, hospitality, marketing and technology, and local businesses.

MLCV partnered with the Carlson MSBA program to help analyze data from their Mille Lacs and Hinckley casinos. Since 2015, headcount has been declining on average 9% per year and promotional redemptions have declined at a rate of 1.2%. MLCV would like to use insights from the data to reverse these trends and have also provided some particular questions that they would like to see answered.

We have been provided with data on headcount, player demographics, and promotion redemptions and through our exploration and analysis, we have looked into MLCV's questions and have some suggestions to help reverse the downward trends in headcount and promotion redemption. In addition to the data provided by MLCV, our team looked at public Yelp reviews and performed sentiment analysis to gain an understanding of what people liked and didn't like about their experience at the properties because we believe that in order to attract new customers MLCV will need to provide an excellent experience value for money.

The measures of success that we will focus our analysis on are increased headcount and increased promotion redemption.

Business questions/Goals

- Which promotions are popular or not?
- What are the demographics behind offer utilization?

- Other interesting insights from the data!
- How do we use promotions to improve the headcounts?

Key Recommendations

Our team has three areas for recommendations: adopting better data capture methods, looking at sentiment analysis and addressing concerns, and recommendations on loyalty and promotions from the data provided. Our overarching recommendation is to focus on improving the customer experience, modern customers expect a high value experience for their money.

- We believe that current redemption and player tracking isn't capturing the full picture
- We saw common themes in the sentiment analysis, both positive and negative. Utilizing this feedback can improve promotions and experience. We saw that people really liked the Prime Rib but there were a number of complaints about smoke on the properties and the housekeeping at the hotel.
- We would recommend reducing the overall types of promotions and focusing in on the ones with the best gains

Analysis Conducted

We first looked at the demographics of the players: looking at the age, income, and locations that people were coming from. We found that the players tended to be older individuals, upperward trend starting around age 50 but with the most frequent age being 70. The estimated annual household income centers just about $70,000. Most players are from Minnesota with the largest densities near and to the North of the properties.

AGE

INCOME

Scaled ZipCode Densities
Source: 5-Year American Community Survey, 2017
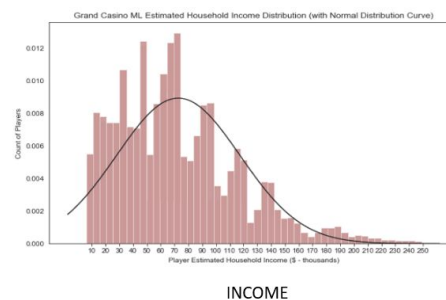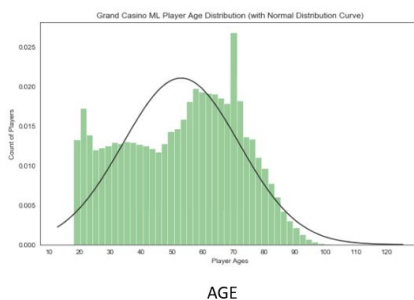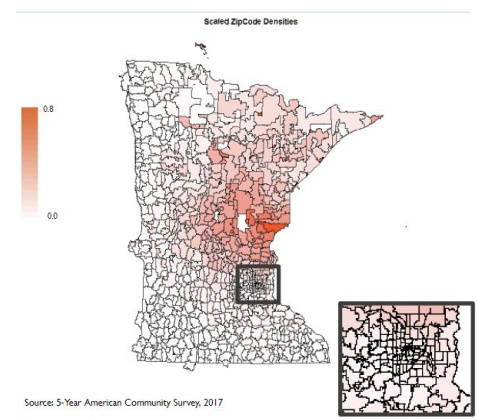
We found that 90% of all loyalty members are in the preferred (lowest) tier. We then explored what the breakdown by tier was for the customers **who redeemed coupons** to see how the two compared: Gold (~32%), Preferred (~31%)

and Silver (~20%) make up 82% of players who redeemed coupons. There's a significant discrepancy between players who redeemed coupons that belong to the top three tiers and there's considerable room to grow other membership tiers and/or shift players from "Gold", "Silver" or "Preferred to other tiers.

To get a better sense of who the customers are we performed a cluster analysis to explore demographic groupings of player that redeem the promotions over the dataset. The analysis found five distinct clusters that showed several things, including that one cluster of approximately 50% of a 3,000 player group was from St. Paul. We also found distinct age groupings, income groupings, and expendable income groupings that made up different groups from the players who are redeeming promotions.. The clusters should be examined in more detail as different micro-segments of players demand a different experience at the casino and need to be promoted and managed to differently.

Looking into the promotions that those customers redeemed we found that 75% of overall redemptions were from just 5 types of promotions: Cash (bonus), Hotel, Free Slots, Cash (Mystery), and Cash (Cash). Promotions such as gifts, points, and events make up a very small percentage of the overall redemptions. While all of these contribute to the overall experience, the hotel redemptions allow for more opportunities to impress with an immersive experience.

We ran an association rule learning algorithm on a merged data table, combining all redeemed coupons and tying them to each player and that player's attributes. The *apriori* algorithm uses a process to mine & discover frequent itemsets/patterns by identifying frequent individual items in a data table and then extending these item sets larger and larger. Here are a few examples of our "mined" results:

LHS	RHS	support	confidence	lift	count
{ValidYear=19,TypeDescription=Hotel,SubTypeDescription=All}	{RedeemValue=29}	0.5572722	0.7744302	1.1602410	63772
{ValidYear=19,TargetPop=Loyalty}	{ProgramType=Gazette}	0.8663532	0.9501184	1.0966870	99142
{ValidYear=19,TypeDescription=Hotel,SubTypeDescription=All,TierName=Gold}	{TargetPop=Loyalty}	0.2122234	0.9986430	1.0951989	24286

We subsetted data based on year, and the table above is a few rules from 2019. The analysis tells us is that for all of the redeemed coupons for 2019, these characteristics kept materializing or cropping up: they belonged to Hotel, and their redemption value was $29 (first row). Another slight variation to that "rule" is that many of the players redeeming these coupons belonged to the Gold tier, and that they were targeted towards "Loyalty" players.

We ran TR-IDF Trigram based SVM sentiment analysis on yelp reviews to get a sense of what people liked and also what negative things they might be saying about their experience. The negative reviews most frequently contained "was" or "think" and the most common theme was complaints about the smoke. Yelp has only a portion of the reviews that google does, so we would recommend redoing this analysis with the google reviews. As the reviewed business, MLCV should have access to these and work to improve the customer experience based on the positives and negatives revealed.

Key Insights
- About 90% of the loyalty members are in the Preferred tier which is the first stage, getting more of these players to increase their trip frequency and spend per trip is a huge area for growth.

- Players are generally older, have a moderate to high household income, and come from North-East Minnesota.
- To build loyalty, Free Slot Gaming and Hotel promotions may work, but once players attain high status levels they strongly prefer the Cash promotions.
  - Free Slot Gaming is incredibly popular overall, but it is popular with the lowest tier of players, this may work to convert non-members to members or to get people from the first tier into the second
  - Hotel promotions work for the mid-tier members, use these to help advance
  - As players advance through the tiers, they exhibit a stronger preference for the cash promotions; tailoring the offerings is essential.
- There is a high rate of complaints about the smoke addressing these and marketing improvements in this area may bring in new players.

Conclusions and Recommendations

We think the most important place for MLCV to focus on is the customer experience, modern customers value experience incredibly highly. We think that creating an experience that works for your current base and also resonates with your desired areas for growth. The experience value for dollar is particularly important for younger customers.

Existing customer base is on average: old, fairly well off, and not traveling particularly far to get to the casino. It might be difficult to find more people like them, so increasing frequency through promotions and appealing to younger potential players will be necessary for growth. To appeal to new customers, addressing negative reviews could be a powerful step. This could become a differentiating factor to gain players currently going elsewhere. We've seen research that it takes 40 positive reviews to counter one negative and that dissatisfied customers tell 9-15 people about their experience. While it must be done carefully to not alienate current customers, it will be important to growth and retention.

Narrowing the promotional offerings to those most popular and strategically offering them to the members as they advance through the levels may reduce costs and increase engagement. From analyzing the data provided, we recommend increasing Free Slot Gaming and Hotel promotions to Preferred and Silver tiers as the redemption rate for that promotion type is relatively high compared to others. This will get the "lower spend" players in the door and increase frequency. To entice the Platinum and Diamond player we recommend focusing on Cash promotions. Finally, Event, Gift, and Free Table Gaming promotions should be dramatically reduced or potentially even stopped. The redemption rate on these promotions very low.

One of the growing trends in gambling is sports betting, we think this could be an opportunity to grow the base of loyal members. The model that Iowa has implemented allows for digital distribution which we think would be helpful for MLVC since players only need to visit the location once to play, however, this could also be a driver for sporting event watch weekends such as the World Cup or March Madness. We would recommend looking at what effect this is having in Iowa and seeing if this would make sense to implement here both an opportunity for growth and to prevent these players registering at casinos in Iowa.

Applying the theory from Airbnb where they aim to give people an experience so good that they tell everyone they know about how great it was, diving deeply into quantitative and qualitative data on how to improve the customer experience will be critical.

Assumptions

- Decreased smoking would lead to an increase in young gamblers
- Increasing promotions of high value (Cash, Hotel, Free Slot Gaming) would more than compensate for stopping low value promotions (Events, Gifts, Free Table Gaming)
- The trends with sports betting has continued to grow, we expect we would see similar results in Minnesota if regulations change
- Traditional gambling has decreased overtime due to the major macroeconomic influences mentioned above
- Customers from the metro area would be willing to travel if the promotions were tailored correctly