Understanding How Retail Shop Penetration Impact the Digital Customer Profile at Ladbrokes and Coral

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Background and Motivation

This dissertation project is provided by Entain and focuses on the company's two UK-based brands: Ladbrokes and Coral. Both brands have a growing online presence in addition to their strong retail presence, having been in the UK high street for over 50 years with over 4,000 betting shops combined.

Its high brand presence and brand awareness in the UK originates from its rich history as one of the UK's first retail bookmakers, which has evolved to include online gaming and sports betting in recent years with the rapid evolution of technology. Like many industries, the UK gaming and sports betting industry has notably changed as a result of the advancement of technology. The widespread availability of sophisticated technology has provided a wide range of digital alternatives to existing retail products that consumers are already familiar with. Specifically, in the gambling industry, online sports betting and gaming have emerged as an instantly accessible alternative to brick-and-mortar betting shops.

There has been an increase in the number of adults in the UK who gamble online. According to a survey conducted by the UK Gambling Commission in 2020, 24% (of the survey participants) had gambled online in the last four weeks, while only 17% of the survey participants had done so five years ago (Gambling Commission, 2021).

Such trend is further emphasised by the revenue streams in the industry. As of May 2021, the remote (or online) gambling sector has become the largest combined sector within the UK gambling industry by Gross Gambling Yield (GGY). The online gambling sector now comprises over 50% of the overall market, while it only comprised one third of the overall market in the previous year (Gambling Commission, 2021). On the other hand, the non-remote sector is the third largest sector within the industry, following the National Lottery, as the total number of betting premises have declined by more than 12% since 2019. The changing landscape of the industry affects brands such as Ladbrokes and Coral as both must adapt in order to continue to lead the market.

According to Newgrove Analytics (2021), 65% of Ladbrokes customers had reported "convenience" as their decision to choose a betting shop in which they typically look for betting shops close to their place of work or their home. Although, with the availability of online gaming and sports betting, retailers are impacted by the changing consumer behaviour as online platforms are easily accessible at any location. Not only that, but recent non-essential retail shop closures due to COVID-19 may have herald a new market dynamic, which is evident within Ladbrokes and Coral customer acquisition. To illustrate, the number of online customer registrations increased by approximately 50% from February 2020 to March 2020, which was when non-essential contact and travel restrictions came about in the UK. However, many of those new online customers may not be a purely online customer (i.e., customers who only bet through online platforms) as they may also have a retail background (i.e., customers who bet in-shop and online), creating multichannel customers. Through this project, Ladbrokes and Coral will be able to distinguish between their "pure" online customers and their multichannel customers, which will enable the company to develop more agile strategies for their online business.

Therefore, this project aims to understand how retail shop penetration impacts the digital customer profile through providing an analytical approach to distinguish between pure online customers and multichannel customers. The objectives of this project are to utilise the data to:
(1) Develop a binary classification model to predict customers' probability of being a purely online or a multichannel customer based on their geo-demographics and online betting behaviour,
(2) Distinguish between the digital customer profile and the multichannel customer profile.

Data and Methods

Data pertaining to customers betting behaviour and geo-demographics were extracted from Entain's internal database. The data resulted in a total of 793,692 customers with 452,262 Ladbrokes customers and 341,230 Coral customers randomly sampled by week, which included online customers in the UK who were active between May 2019 and May 2021. The dependent variable to indicate whether a customer is online or multichannel is represented by whether or not a customer has a Grid/Connect card, which allows customers to link their retail activity with their online account. Betting behaviour was assessed through the customers' tenure days, number of retail payments, betting expenditure, product variety, frequency of play, and recency of play. Geo-demographic data included the customers' age, region, ACORN classification, distance to their nearest Ladbrokes or Coral shops, and distance to their nearest competitor betting shop.

Subsequent to data cleaning and pre-processing, binary classification models were trained on Ladbrokes and Coral customer samples to predict and distinguish between Online customers and Multichannel customers based on geo-demographics and game play patterns. Model comparisons indicate the Random Forest classifier to be the best model to predict customers' account types, and further statistical tests were conducted to distinguish between the two customers' profiles.

Key Findings

Results of the binary classification model is utilised to infer customer profiles as based on the variables of high importance in the random forest model. Statistical tests are utilised to ensure that the customer groups truly differ to each other. The results found significant differences between Online and Multichannel customers at Ladbrokes and Coral, being that online customers tend to be younger and further from shops than multichannel customers, and that multichannel customers have higher tenure, bet in higher frequency and with higher amounts, have played more recently, on average, and make in store transactions for their online account.

Value of the research

With the digital and multichannel customer profile derived from this project, which takes into account the customers' demographic and geographic information, the business can safely assume which product or service option would best fit each profile. Hence, personalised defaults can be applied through what is known about a customer segment to customise advertisements in a way that is ideal for the customer and the company, which provides a better solution than mass marketing (Goldstein et al., 2008). Not only that, but personalised defaults is feasible when customer information is readily available as they are more likely to satisfy customer needs than mass defaults, which apply to all customers of a product or service, without taking customers' individual characteristics or preferences into account (Goldstein et al., 2008). The effectiveness of personalised defaults to strategise on target marketing is also advantageous in comparison to mass marketing in order to optimise costs (Benartzi et al., 2017). While this project can provide value for the business, results of this project can also be utilised in benefiting the customers. More specifically, in protecting customers against problem gambling. Problem gambling is defined as gambling behaviours which are damaging to the gamblers and interferes with their daily life (Rosenthal, 1989). With the increasing prevalence of online gambling and findings that indicate behavioural differences of online gamblers, there is an opportunity to investigate problem gambling specific to this customer population. Though this is outside of the current project's scope, the classification of online customers can provide a foundation to further analyse the manifestation of problem gambling, as previous studies have indicated that online problem gamblers differ to non-online problem gamblers (Jimenez-Murcia et al., 2011). Thus, this project's results also have implications for clinical and public health practice with respect to understanding problem gambling and provides the business with an opportunity to protect their customers from an ethical perspective.