

Rules

Spring 2018 Sports Marketing Analytics Contest: Season ticket churn

Competition Rules

Eligibility: The competition is open to all CBA students, both undergraduate and graduate, including those in the pre-professional program, as well as CBA faculty. Individuals or teams are welcome to enter. **Each student can only compete as part of only one team. Any student that registers as a member of more than one team (including single member entries) will be disqualified from the contest.** The maximum team size is 4 members. (From this point forward, even entries for a single individual will be referred to as a “team”.) Teams must consist of either all undergraduate students, all graduate students, or all faculty members. All eligible entrants will automatically be competing for cash prizes, with the following exclusions:

- Those individuals that are part of the group working with Dr. Walker on the contest as a member of the Analytics Contest Experiential Learning Group (ELG) within the MKTG630: Sports Marketing class (as well as TAs for the class) can enter the contest but are not eligible for cash prizes. This restriction will also apply, if necessary, to former members of this group.
- CBA faculty are welcome to submit entries but will not be eligible for cash prizes. They will compete only for fame and glory.

Categories and prizes: Entrants will compete in one of four categories: Undergraduate Marketing, Undergraduate Open, Graduate, or Faculty. Only teams consisting exclusively of Marketing majors can compete in the Undergraduate Marketing category. Teams consisting of only Marketing majors must choose at registration whether they want to compete in the Undergraduate Marketing or the Undergraduate Open category. Only undergraduate and graduate students will compete for cash prizes. Winning teams will split cash prizes among their members. Best in Show prizes will be additional cash prizes for the top four teams from the combined entrants of the Undergraduate Marketing, Undergraduate Open, and Graduate categories. The payouts will be as follows:

| Category | Undergraduate Marketing | Undergraduate Open | Graduate | Best in Show | Faculty |
|-----------------------|-------------------------|--------------------|----------|--------------|---------|
| 1 st prize | \$400 | \$400 | \$400 | \$400 | \$0 |
| 2 nd prize | 200 | 200 | 200 | 200 | 0 |
| 3 rd prize | 100 | 100 | 100 | 100 | 0 |
| 4 th prize | 50 | 50 | 50 | 50 | 0 |

T-shirts will be awarded to the members of the winning teams in each category, as well as the Best in Show winners.

Anonymity: All entrants (including each team member) must identify themselves by eID during registration. All finalists will be publically identified by name and their name and likeness will be used both internal to the CBA and externally, with approval required at registration.

Registration will begin on Wednesday, March 7, and will run through Friday, April 6. The URL to access the online registration form is available at https://kstate.qualtrics.com/jfe/form/SV_5yCOTzImmHhTGhr or via the following QR code.



Registration will include providing each team member's name; eID; undergraduate, graduate or faculty status; major; and a media release agreement. Each team must also indicate the category in which they will compete.

Canvas Course: Upon registration, each team member will receive an invitation to join a Canvas course dedicated to the contest. The Canvas pages will provide everything required to participate in the contest, including an introduction, a detailed description of the challenge, rules, access to the dataset, entry submission, information on training opportunities, and FAQs.

Data: The dataset will be available for download from Canvas for all registered participants that have accepted the invitation to join the Canvas course beginning on Wednesday, March 7. The data will remain available for download through Wednesday, April 18.

Training/Mentoring: A primary objective of this contest is to promote learning in the area of analytics through doing. A majority of students in the CBA are unlikely to be equipped to produce a competitive entry based on their current state of knowledge (although some certainly will be). Dr. Walker plans to provide training opportunities for all interested students. Details for this training will be communicated via Canvas. Entrants are also encouraged to pursue guidance from others (fellow students, faculty, or externally) that have an interest in working with students on analytical problems. Entrants, however, are expected to ultimately submit entries that represent their own work.

Entry Submission: Submissions will be accepted via upload to the Canvas page beginning Wednesday, March 7, through Wednesday, April 18. There is no limit on the number of submissions, however, only the last submission for each team will be evaluated. The submission file must be constructed and uploaded as follows:

1. Go to the "submission" tab in the contest data file.
2. Enter each team member's first and last name in the yellow cells.
3. Enter the scores for all 9542 individuals in the validation sample into Column B. These values represent the scores produced by the model for each individual that were used to make the predictions.
4. Enter the predictions for all 9542 individuals in the validation sample into Column C. These values are either 1 for a predicted defection or 0 for a predicted renewal.
5. Save the Excel file.

6. While on the “submission” tab, save the “submission” tab data as a Text file. Do this by choosing File – SaveAs – then changing the “Save as type” to Text (Tab delimited) (*.txt). (You may have to select “OK” and then “Yes” to complete saving the text file.)
7. Upload the text file you created under the Assignments tab on Canvas.

Evaluation and ranking: Models will be evaluated and ranked using the area under the curve (AUC) metric as determined using the trapezoid method. (The AUC of models ranked high enough for a prize must be greater than 0.50 – the expectation of a random classification.)

Finalists: The top 4 entries with the highest AUCs in each category will be notified by Monday, April 23, and invited to participate in a public event in the Business Building atrium at 10:15am, on Wednesday, April 25; where the final rankings will be revealed and the prizes will be awarded. The expectation is that finalists will be present to accept their awards.

Documentation: Distribution of the prize money is contingent on the team producing a one page write-up describing their entry, consisting of three parts: a general description of the analytical approach they used, details on the ultimate scoring scheme applied, and a brief discussion on the choice of the cut-off value.