

Real-Time Data Visualisation and Predictive Analytics

CONTEXT

To bridge a marketing communication gap in the Fast-Moving Consumer Goods (FMCG) market, and create a direct engagement between brand owners and grocery shoppers, BrandCode a smart shopper reward mobile application was developed to provide grocery shoppers with detailed information on products, promotional activities, contests as well as a Shopper Loyalty Program, accessible either via the BrandCode App or by scanning of product barcodes.

Currently, more than 10,000 products at major supermarkets such as AEON, NTUC Fairprice, Cold Storage, Giant, Sheng Siong, 99 SpeedMart, Jaya Grocer, etc and also healthcare and beauty stores such as Carings, Watsons and Guardian, are in listed on BrandCode App and is open to users from Singapore and Malaysia.

By uploading receipts from these outlets, shoppers are awarded with loyalty points to redeem for product samples, vouchers and more. For brand owners, data derived from the uploaded receipts, which we called 'Receipt Intelligence' offers incredible visibility into customer profiles and purchase behaviors for marketing and innovation purposes.

BrandCode is currently working to convert all the transactional information from shopper receipts to form a user database, and exploring to develop a robust and user friendly platform to visualize and analyse all the data points from the database to provide accurate, timely and actionable insights for brand owners to leverage on.

Therefore, BrandCode is seeking an integrated real-time data-driven platform drawing on 'receipt intelligence' with comprehensive predictive analytics to uncover meaningful trends and patterns, with effective visualisation capability.

PROBLEM STATEMENT

How might we create a platform, drawing on our database of real-time receipts data, to not only visualise shopper past behaviour but also to provide predictive shopper actionable insights that will enable brand owners to timely, effectively reach and engage targeted shoppers?

WHAT ARE WE LOOKING FOR

- Prototype of a solution that can help BrandCode to visualise their database of receipts data in an intuitive manner through infographics and humanised language. It need to have the following functions.
 - Ability to call out data, compare and find correlation between products, price, place, etc.

- Ability to predict trends and shoppers' behaviours using machine learning/pattern recognition algorithms
- Built-in customised access to content, features or services based on different user rights
- Works across all major desktop and mobile platforms
- Ability to export relevant information in the form of reports.

There are no restrictions on the geographic location of the problem solvers who may choose to apply to this challenge. However, the prototype needs to be demonstrated in Singapore.

POSSIBLE USE CASE

- An existing database is currently made available with transactional information from shopper receipts gathered, decoded and categorised. From this existing database, the solution analyses and visualises these transactional information (e.g. location of purchase, items purchased, frequency of purchase) into meaningful data patterns (e.g. demographic profiling of customers, purchase behaviour and patterns). A brand owner has subscribed to this paid platform for insights (e.g. on beverage consumers' shopping habits) to create targeted sales campaigns. The solution pulls out relevant data, comparing and finding patterns (e.g. correlation between products, price, place, etc.) to provide actionable insights for the brand owner.

WHAT'S IN IT FOR YOU

- SGD 20,000 of prize money for each winner of this challenge
- Access to BrandCode's domain expertise and test data for prototyping of solution
- Potential access to local and international markets (Malaysia, Thailand, Indonesia, Australia) if solution is successful and rolled out

EVALUATION CRITERIA

The Applicants shall be evaluated in accordance with the evaluation criteria set out below.

| | |
|---------------------------|---|
| Solution Fit | To what extent does the proposed solution address the problem statement effectively? |
| Solution Readiness | How ready is the proposed solution to go to the market? Is there any evidence to suggest capacity to scale? |
| Solution Advantage | Is the solution truly innovative, does it make use of new technologies in the market, and can it potentially generate new IP? |
| Company Profile | Does the product have user and revenue traction? |

| | |
|--|---|
| | Do the team members possess strong scientific/technical background? |
|--|---|

AWARD MODEL

30% of the prize money will be awarded to each selected finalist at the start of the prototype development process, with the remainder 70% to be awarded during the prototype development process, based on milestones agreed between BrandCode and the solver.

Note that a finalist who is selected to undertake the prototype development process will be required to enter into an agreement with BrandCode that will include more detailed conditions pertaining to the prototype development.

DEADLINE

All submissions must be made by **04 October 2019, 1600 hours (SGT/GMT +8)**. BrandCode and IMDA may extend the deadline of the submission at their discretion. Late submissions will not be considered.