Meeting Minutes (Sponsor Discussion #1)

Date: 27 July 2017

Venue: Ministry of Culture, Community and Youth

Participants: Ms. Wendy Tan, Dr. Sharon Chang, Leong Jia Min, Shereen Teo Boon Khee

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| **#** | **Discussion Content** | **Purpose** | **Action Taken** |
| 1 | **Q. What kind of data does NAC analytics dept have? (Asked for sample/small cross Q. section)**The significant data sets they have of note are:1. National Population survey of the arts → they have at least 10 years of data with 1,000 respondents each survey approximately. Basically capturing age, gender, postal code, participation in the arts (number of times, which events, etc)
2. Art nodes → specific to art events and done monthly. All the above demographic information is included and perhaps we could marry all the data together for one big dataset
3. Psychological study ONLINE and specific to music. They basically posted a series of psychological questions online (eg. “I listen to local bands”) on a scale of 1 - 5 in terms of 1 being strongly disagree and 5 being strongly agree.
 | Understand the datasets available in NAC | - |
| 2 | **Q. What kind of business questions they are trying to resolve?**Some of the ideas we were throwing around (roughly) are as follows:1. How to **boost loyalty** → get trialists to become repeat visitors to art exhibitions. What are the drivers behind this concept?
2. Concept of **Purchase funnel** → how to push people to be aware, trial, regular, advocate, recommender. What is the differentiating factor across the buckets and how to place people within these buckets → could be an overarching theme?
3. **Geospatial analysis**, find out if location is a factor (community centre, PA). The national population survey of the arts collects ethnicity, gender and postal code data.
4. Try to **convert non-paying singaporeans to paying singaporeans** to support the arts scene. Currently ⅓ of singaporeans consume/support arts because it is free, they do not value the art to the point that they are willing to pay for it. This would resolve quite a lot of issues for the government and allow them to better allocate their subsidies/benefit more artists.
5. *(weak)* **Social Listening,** they have multiple platforms (facebook, twitter, website) but specific to each event they have currently. The bigger events are Singapore Writer’s Fest and Singapore Arts Week.
6. Sentiment/**Psychological segmentation**. Based on available data, perhaps we can identify segmentations to art participants/consumers that is beyond simple gender/age/race/life frame. (similar to National Gallery survey below)
 | Discussion on what kind of business issues NAC would want to resolve | - |
| 3 | **Q. What kind of analysis has been done previously within NAC or MCCY?**Currently they have a data scientist in MCCY who works solely on data visualisations. They have a standard survey that MCCY does every month (random sampling) which is called the Social Pulse Tracker. Basically they measure the sentiments of a typical singaporean and do geospatial analysis on this → comes up with insights on East and West difference in perceptions toward government etc. Insights are combined into a Tableau dashboard Previously National Gallery partnered with IPSOS to conduct a psychological study which reverse engineers the needs of art participants → what drives them to visit a museum or what motivates them the most! The survey featured a series of statements which they have to rank agreeableness on a range of 1 to 10. Possible statements are “I come to museums to feel cultured” or “I come to museums for the social benefits → instagrammable shots”. Based on the responses of individuals, they code the responses and come up with segmentations! Examples are the Social animal, people who come because its free, people who support friends, etc.  | Discussion on what kind of analysis has already been conducted | - |
| 4 | **Q. What kind of software they prefer or are familiar with:** Tableau and SPSS, the analytics team has access to the licensed software and use it very frequently. Concern could be that our student license has limitations that is unlocked in their premium range. → not too sure if we should consider R here. It seems like they actually prefer Tableau | Current available software | Need to consider installing Tableau and SPSS again |
| 5 | **Q. Additional observations*** I felt like Sharon is very interested in data visualisation, she is a strong believer of its potential and how it can help their upper management
* Sharon doesn’t believe in bringing the art to the neighbourhoods, she thinks that if we make it too easy for them to access art, citizens would become negligent towards appreciating it. So better to get them to travel to middle of town/MBS area, so that there is a different feeling/vibe
* How do university students perceive art?? Does exposure to Arts Fest really create a lasting/measurable impact?? What is the difference between SMU students and NUS/NTU students, given that our school proximity is so much closer to museums. She is actually interested in conducting a study ranging across polytechnics and universities to find out more about their behaviours
* She feels that the art scene in SG is not mature enough, people more or less go because it is free. She is an advocate of the type of art pieces that are darker/thought provoking/questions society. Although she recognises that these pieces are generally more controversial and considered ‘anti-government’
* ⅓ of population go because they are truly interested and are willing to pay, ⅓ go because it is convenient and free, ⅓ will NEVER go (these are those housewives, blue collar workers etc)
 | Discussion with Dr. Sharon Chang on her own views on the possible avenues of the project | Review at later date |
| 6 | **Q. Additional Opportunities*** She mentioned that SISTIC has a lot of ticket sales data BUT their data is super unclean. There is a lot of unupdated data since 10 years ago, so if we were to get data from them, we would spend a lot of time data cleaning. They are a separate team as well, so if we want to approach them, we will need to correspond with more parties.
 | Suggestion by Dr. Sharon Chang on approaching another sponsor | - |
| 7 | **Q. Follow up after the meeting?** * Currently we are very keen on working with NAC, we are just waiting for Wendy to send over her cross section of data. Then we can talk to Professor Kam to ask about the feasibility of the project and also any possible suggestions/ideas he may have to build on our objectives. Advice maybe?
* Need to find out if we can reinstall SPSS and Tableau onto our laptops.
 | Considering NAC as potential official sponsor | Follow up with NAC for confirmation |
| 8 | **Discussion with Aaron*** Consider bootstrapping to expand data points
* K means - clustering
* Create a model that can score customers in terms of propensity towards investing/increasing interest in arts (regression)
* Email Wendy on Tuesday, reach out to prof by Thursday.
 | Updating Aaron on discussion with NAC | - |
| 9 | What kind of data does NAC have?1. Geospatial Analysis: find out if they have information related to location, community centre, identify whether the **location** matters in visitation numbers
2. K-means clustering: creating a model to identify **genre/types** of exhibitions/performances/features. Identify a genre that appeals to general public/larger target audience. → promote repeat visitations
3. **Quality of events** - reasons why people go is because they find the events of better quality? (non-demand centred reasons)
4. **Social media** usage growth in driving marketing/awareness towards art events etc?
5. Apply **google analytics** on their website?? Find out a rough idea of the consumer journey/interest spikes on the NAC website
6. Demographics analysis: regarding the profiles of the surveyors

Direction1. Is there a quantifiable number that you can put to the strategic thrusts → find out what they are working towards. Come up with a model to put the above model together
2. Whether they have access to data from other stat boards → with their data, we can create a more representative climate of the arts scene

Possible Other Projects:1. Basket analysis/Association analysis: Major departmental stores with data → Robinsons, Tangs
2. Sentiment Analysis/Data Mining/Social Analytics: Python, Scrap, XML
3. Types of Analysis
	1. MBA/association analysis
	2. Loyalty analysis
	3. Sentiment
	4. Social
	5. Geospatial
 | Review of data sets NAC has and their potential | - |