

# Driving loyalty of your audience through technology in the cultural sector

The opportunities made accessible to theaters by the Cultural Analytical Suite



Wieke de Wit  
Senior Analyst  
Mlcompany



Marnix Bügel  
Managing Partner  
Mlcompany



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Recently, MIcompany analyzed the customer behavior of five theaters (and concert halls) over a period of three years. From this research – initiated by VSBfonds – it appeared that the loyalty of audiences to a great extent determines the success of the theaters. Moreover, using the power of Data Analytics proved to lead to a significant increase in this loyalty. MIcompany, together with VSBfonds, designed the Cultural Analytical Suite (CAS) to continue to harness this opportunity. This article explains the working of the CAS and its possible applications.

Repeat visits are crucial to theaters

In the research, performed by MIcompany, a longitudinal view of the customer was built where tickets were traced back to unique visitors (customers) and visitors' behavior could be followed during multiple years. This longitudinal customer view enables the comparison of visitors from two different cultural seasons. An explanation of the differences can be identified using a Source of Difference (SOD) analysis. The results of this analysis are surprising (see Figure 1). From the SOD it appears that two-thirds of customers (65%) do not return in the next season. Stated differently, only 35% of the customers visits the podium again in the next season – the so-called stable base.

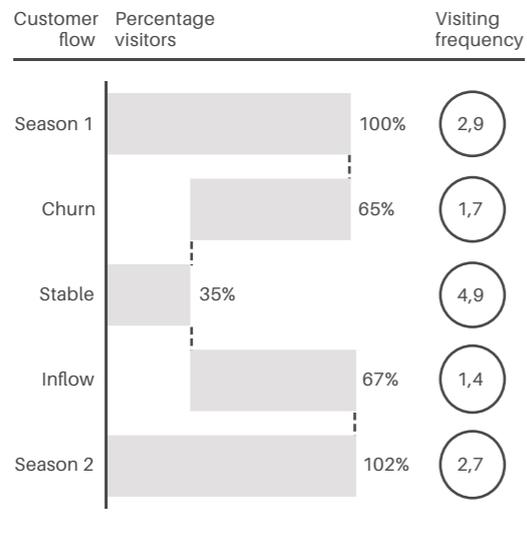


Figure 1. Source of difference analysis

For most service companies the stable base is around 80%. Compared to these companies, theaters have to work relatively hard to keep up their customer base. Another remarkable finding is that the visiting frequency (the number of visits by a customer in a cultural season) of the stable base is much higher than that of inflowing and outflowing customers (see Figure 1). In fact, a small group of loyal visitors to theaters (10%) is responsible for more than half (55%) of the total number of visits over a period of three years (see Figure 2). Theaters are therefore to a large extent dependent on this small group of very loyal visitors.

Next to a comparison of visitors in two successive years, the longitudinal customer view offers the opportunity to follow customers after their first visit (Cohort Analysis). The outcome of this analysis is also spectacular: visitors turn out to have a tipping point towards loyalty. This tipping point is reached after three visits. After the first visit, the probability of a repeat visit is only 32%, while after the second and third visit this increases to 64% and 76% respectively (see framework). An increase of the visiting frequency therefore leads to a double positive effect ('a double whammy'). On the one hand, it reduces the amount of inflow necessary because of the increase in the stable base. And on the other hand, an increase of the visiting frequency leads to a higher probability of repeat visits and a more loyal customer base. Binding the audience is therefore the 'name of the game' for theaters, and the use of Data Analytics herein is crucial. Data Analytics not only enables us to track repeat visits on customer level, it also explains it and lets us influence

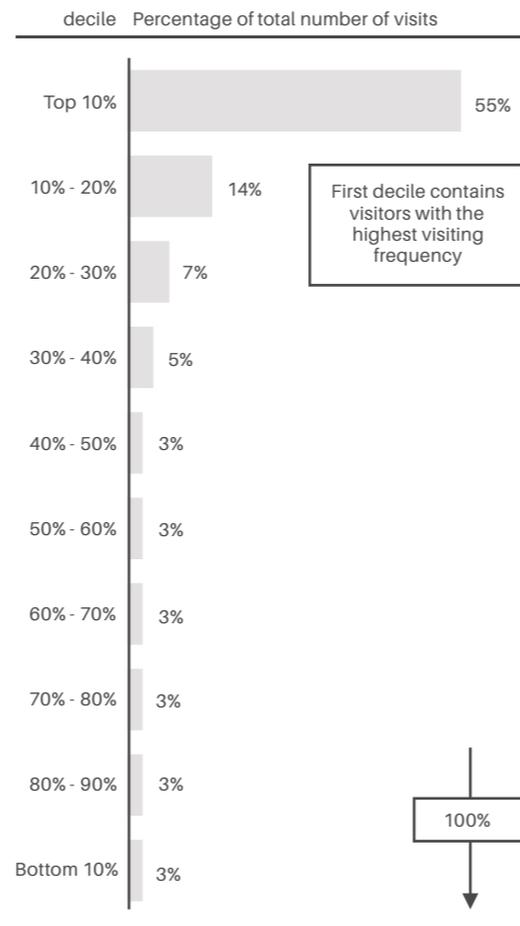


Figure 2. Decile analysis based on number of visits

it. To make these opportunities accessible to theatres and concert halls, MIcompany created the Cultural Analytical Suite (CAS).

Three times is top loyal

When researching the defining behavior of loyal customers Netflix discovered that a customer is 'hooked' after four episodes and keeps watching. In the Netherlands this "addiction" occurs after only three episodes. For theaters, this principle is similarly: you have to let people visit several performances. The probability on a repeat visit after the first visit is about 30%, after the second visit it is more than 60%, and after the third visit it's even 76%. After that, the probability on a repeat visit does not rise anymore. Three times top loyal. Source: Column Martin Heijnsbroek, Financieele Dagblad.

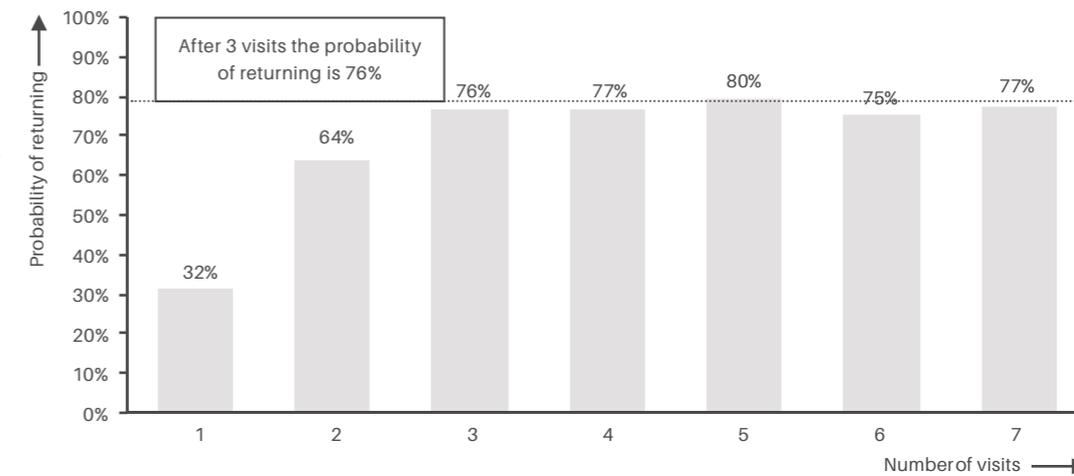


Figure 3. Customers have a tipping point towards loyalty

**“There is a lot of unused potential in the cultural sector. Through a thorough analysis of our customer data we can unfold this unused potential.”**

Simon Reinink, director of Het Concertgebouw

Harnessing the power of Data Analytics in the Cultural Analytical Suite

The Cultural Analytical Suite (CAS) is an interactive online environment where the development of the customer base can be tracked

through ten views. The philosophy behind the CAS is based on a top-down approach. First, the total changes in the customer base are shown (Top View), where after deeper analysis is possible in four directions:

1. Customer views: Deepdive into customer behavior of several customer groups
2. Concert views: Deepdive into visiting behavior for different concerts
3. Market views: Benchmark the performance with the market
4. ROI views: Evaluate marketing initiatives
5. Based on insights from these views, new opportunities for growth can be identified and initiatives can be developed.

The CAS offers the following three main functionalities to users:

1. Measure and follow repeat visits through time
2. Perform deepdive analysis on repeat visit of customer groups
3. Establish the effects of commercial initiatives with reference groups

These functionalities are elaborated on below.

Measuring and following repeat visits with The Cultural Analytical Suite

The first functionality in the Cultural Analytical Suite provides insight in repeat visits on individual customer level. This is not trivial for theaters, as reporting is done in terms

## Deepdive on Customers

Previous 12 month up to December 2015

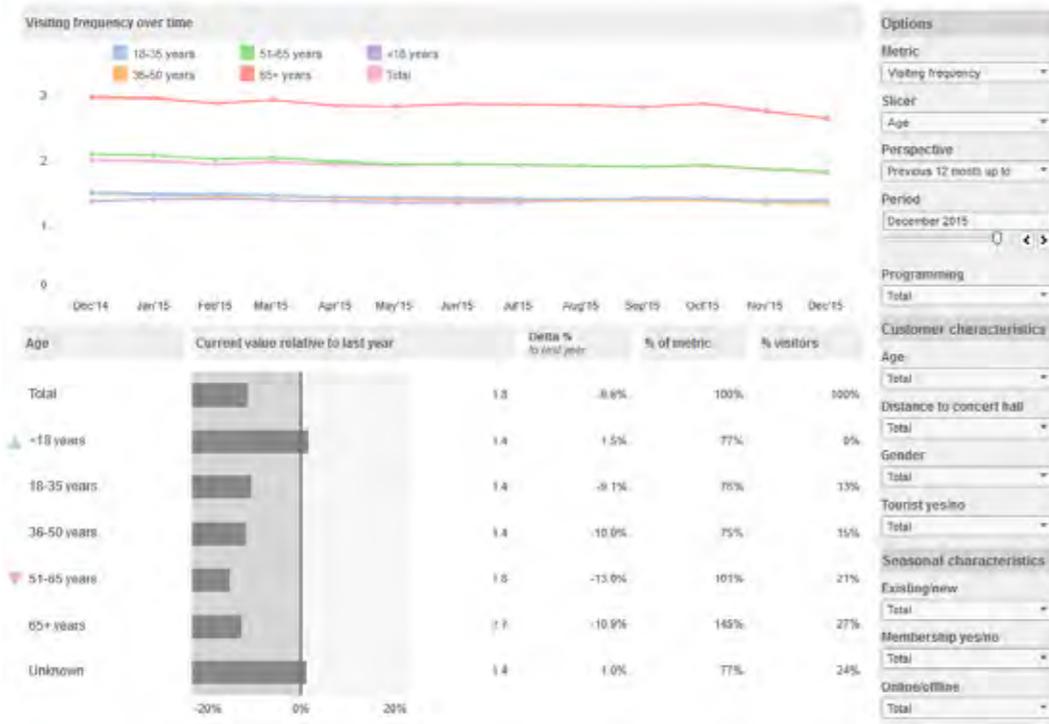


Figure 4. In Deepdive on Customers (a customer view) customer groups can be compared

**“The CAS helps our organisation to steer because we have a dashboard like in a car. So we know when to steer and how to steer. Thanks to data&analytics.”**

Simon Reinink,  
director of Het Concertgebouw

of the number of tickets sold. However, when we want to focus on visitors we should go back from tickets to customers who actually visit. To this end, tickets must first be ‘deduplicated’ to visits and then to unique ticket buyers (the person who buys the tickets for a certain visit). The visitor behavior of the identified unique ticket buyers can then be determined in each period. We make, so to speak, a movie of every visitor by using pictures of frequent moments of his customer journey. This is the longitudinal customer view mentioned earlier, and it forms the foundation of the Cultural Analytical Suite. By comparing the behavior of customers in different periods one can follow the development of, for example, repeat visits through time. The first view of the Cultural Analytical Suite is the Top View. The Top View shows the value and development of the key performance indicators, such as the number of ticket buyers, visiting frequency and revenue. In the view, changes in KPIs are clearly visualized with bullet graphs and the trend is shown in line graphs. The CAS is interactive, this means that

users can select their own focus period, customer groups or concert groups by changing the preferences at the right side of the screen. These options give the CAS the desired flexibility and depth for all layers of the organisation.

Performing deepdive analysis on repeat visits in the CAS as a function of visitors and shows the second functionality of the Cultural Analytical Suite is the comparison of the behavior of customer groups at different events in the customer views and concert views. The longitudinal customer view contains, next to behavior, certain characteristics of ticket buyers such as age, living area and gender. The Cultural Analytical Suite can split up repeat visits according to these characteristics. For instance, the development of repeat visits of seniors can be compared to that of young people, so that the (change in) relative importance of these groups can be reviewed. It has, for example, proved of much relevance to distinguish according to age and distance to

**“Without a profound knowledge of the results of the campaigns, our customer strategies are not more than just a wild guess and data&analytics helps us face this challenge.”**

Mathijs Bouwman, marketing  
manager de Doelen

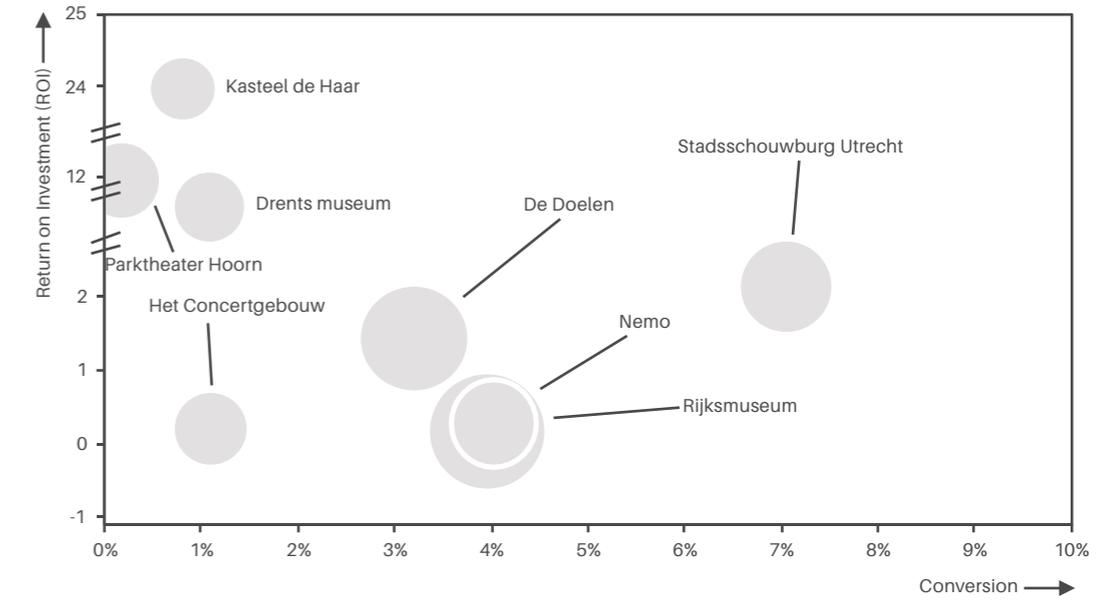


Figure 5. ROI and conversion of all pilot initiatives of project Binding your Public

a podium. In one of the three customer views (Figure 4) it becomes apparent that seniors older than 65 years have a much higher visiting frequency. However, the visiting frequency decreased by 10.9%. Based on this insight, initiatives can be developed which are targeted to this specific group. An organisation can thus decide for itself what they find to be of importance, like senior marketing. This also became apparent after the (one-time) analysis during project ‘Binding your Public’: the visiting frequency of seniors is almost three times as high

as that of young people. In addition, the group of seniors is growing and theaters regularly welcome new customers from this age group. Also, characteristics of events are incorporated in the CAS. Customer behavior can be examined according to these characteristics in the two concert views. For example seniors who visit classical music concerts might behave differently than those who go to jazz concerts. The Cultural Analytical Suite provides the possibility to evaluate the effect of the programming on customer behavior. This triggers the discus-

sion about event planning from a commercial perspective. Insights indicate, for instance, that the important customer group of seniors visit Het Concertgebouw relatively often during daytime. To better suit the wishes of this group of customers, the Concertgebouw now organizes afternoon concerts on weekdays.

#### Developing effective initiatives

As a third functionality, all marketing initiatives – like the afternoon concert in Het Concertgebouw – are evaluated in the CAS through a standard method. The method is developed based on Micompany's broad experience in campaign evaluations and designed specifically for the cultural sector. It is determined how many times the initial investment is earned back with the extra revenue generated by the campaign. This is the Return On Investment (ROI). In the CAS the ROIs of the different initiatives can be compared, so that the most successful initiatives can easily be selected for repetition. The initiatives tested during project Binding your Public showed different conversion rates and all had positive ROIs (see Figure 5). This means that the initiatives led to an increase in the number of visits to the theaters and that the extra revenue earned exceeded the costs of the campaigns.

Initiatives could be more successful for particular customer groups. By analyzing the effectiveness of an initiative for customer groups, the initiative can be sharpened by, for instance, approaching only a specific customer group or adjusting the promotional offer. To determine the effectiveness of a marketing initiative or campaign, the longitudinal customer view is

## “The CAS helps us to give us insight in our main KPI's. And helps us to set SMART targets”

Carljen Blok, Manager Marketing, communications and Sales  
Het Concertgebouw

again indispensable. Merely measuring the effect of a campaign is not sufficient to determine its actual result. It is also important to compare the result to a reference group that was not affected by the campaign. The longitudinal customer view allows us to compare the behavior of the action group to that of the reference group. This establishes the autonomous behavior and enables us to exactly determine the additional effect of the campaign.

The development of effective initiatives is valuable for one podium and the value increases as the conclusions and learnings are shared with other theaters. The research does indeed consistently show that insights and opportunities are similar across all of the theaters. The Cultural Analytical Suite allows results to be benchmarked (in the market views) and offers a platform for participating theaters to share best practices and evaluate the use of Data Analytics together.

#### The use of the Cultural Analytical Suite in practice

The Cultural Analytical Suite (CAS) is an appli-

cation developed in Tableau that is updated every month. The CAS functions as a compass for theaters. Users get an extensive training before getting started.

#### Update of insights with newest data

Data from cash registers of theaters is made available every month. The data contains, for all customers, the number of tickets and the event for which the tickets are bought. The data is then transferred to Micompany through a secure connection, where it is processed to the longitudinal customer view. The standardized insights in the CAS are updated with the newest data and made available to end users (see Figure 6). End users are then notified of the newest opportunities in the customer data by means of an email highlighting the most important insights of the month.

#### Training in opportunity finding with the Cultural Analytical Suite

All users receive a training in opportunity finding with the CAS. The training applies to several different positions, so that a data driven way of working is developed throughout the entire organisation without the need for a own in-house data analyst.

#### Embedding the Cultural Analytical Suite in the organisation

At Het Concertgebouw in Amsterdam and de Doelen in Rotterdam, the Cultural Analytical Suite is a regular part of a number of (monthly) recurring meetings. The whole organisation is thereby involved in the deployment of Data Analytics. For example, at Het Concertgebouw the CAS is discussed in four different meetings

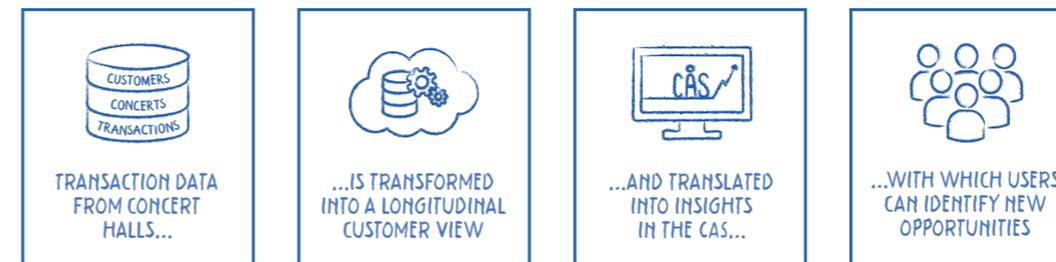


Figure 6. Schematic view of the monthly update

every month, including meetings of the marketing and management teams. Every quarter extra CAS-sessions are planned wherein initiatives are evaluated and special in-depth themes like local marketing and outflow of customers are discussed.

#### Continuous improvement and development of the Cultural Analytical Suite

There is an ongoing debate with users of the CAS about new needs for new customer insights. To this end, the CAS is developed further by adding analyses from Analytical Suites of other sectors. For example, a newly developed customer retention view from the retail sector can be very valuable to the cultural sector as well. Hereby the extensive knowledge of Micompany in the area of Data Analytics and their experience across many different sectors is fully exploited.

#### Conclusion

The CAS enables the use of Data Analytics in the cultural sector without a team of 'data scientists'. This offers the opportunity for directed stimulation of repeat visits and the creation

of customer loyalty. This is extremely valuable in the cultural sector, as the binding of the audience is the most important lever for the growth of revenue.

“Because of the positive results of the project and the fact based character of it, I'm convinced that this is the modern way of working. Data Analytics will help theaters, museums to bind their public.”

Eerde Hovinga, manager donations  
VSBfonds

In Project Binding your Public the data of ten cultural institutions\*, including Het Concertgebouw and Rijksmuseum, was analyzed. The analysis led to insights and opportunities regarding the increase of repeat visits. Nine pilot initiatives were launched from which eight realized a positive return on investment (ROI), varying from +0,3 to +25,6. The project was executed on the initiative of VSBfonds with the aim of stimulating entrepreneurship in the cultural sector.

VSBfonds is a Dutch donation fund that supports cultural and social initiatives. VSBfonds contributes to the quality of the Dutch society by supporting projects with money, knowledge and networks. It aims at the individual development of people and the increase of their involvement in society.

The following ten institutions took part in this pilot:

1. Het Concertgebouw Amsterdam
2. Stadsschouwburg Utrecht
3. Concert- en congresgebouw de Doelen
4. Schouwburg Het Park te Hoorn
5. Wilmintheater en Muziekcentrum
6. Rijksmuseum
7. NEMO
8. Groninger Museum
9. Drents Museum
10. Kasteel De Haar