

Optimal Integration of Enterprise Information

"the world is now awash in data and we can see consumers in a lot clearer ways."

- Max Levchin
Co-founder, PayPal

Introduction

Before the dawn of digital disruption, life of a marketing person was much simpler. The traditional marketing revolving around the 4Ps and the 5Cs would mostly focus on the one on one relationship building. But things changed, and it changed for good.



Image source: <http://www.heedbusinessdesign.com/>

Today, the digital spectrum has changed the entire gamut of how we approach marketing.

Marketing, today, has become a key contributor towards success and sustainability of an organization. It has become all the more crucial for a marketing team to track data in order to provide effective insights to the stakeholders, as well as help address key strategic concerns of the organization.

Organizations today have a significant amount of data generated in-house. However, most of this data are either unleveraged or are being leveraged inefficiently. Organizations are being compelled to kick-start data -driven programs and initiatives for improved performance and success. Research shows that top performing organizations are twice as likely to use analytics for their decision-making.

Analytics is a combination of four different stages, i.e., measurement, reporting, prediction and interventions. The most important part of performing data analytics starts at the data collection and managing stage. Once the data is managed effectively, it becomes easier to identify the key metrics that would be tracked in order to measure performance. The next step is to build an integrated delivery system that would visually represent / report data simultaneously and independently from multiple discrete sources in order to address key marketing questions. A successful analysis results in key findings from both a diagnostic perspective and through predictive/ prescriptive perspectives, and more importantly allows interventions in order to make the right business decisions, when it matters the most

Scenario

Let us consider a scenario with a company marketing more than 1000 SKUs across India. They are reaching consumers through a multitude of stores and utilizing distribution and market related data from multiple discrete tracking sources. The major concern the company has is in terms of the differences in format and content gathered from these sources, which pose a challenge in obtaining a holistic overview and in understanding of the cross linkages and overall impact. It is crucial that the company realizes the importance of managing the data well by linking and maximizing the utility of the data.

The first step towards dealing with this situation is to identify the right technology/tool for collating the data in a common platform. While choosing a database the company needs to keep in mind a couple of factors including adaptability, reliability, scalability, and predictability of the platform. Data collation could be a complicated process depending on the various data sources that are in consideration. Apart from the data source related complications, what could also cause a challenge are the differences in the variables and measurement types captured across multiple data sources.

After the data is integrated in a common platform, the next big questions are:

- What should be done with the data?
- How does one ensure that the data captured is driving us towards profitability?
- How do we visualize the data to ensure effective synthesis of information?

The solution to all these questions are simple (or at least looks so), get a marketing dashboard. Identify the right metrics that need to be tracked for the optimum monitoring of the company's performance and stability.

In order to create an effective marketing dashboard, it is important to follow a structured approach.

Start by asking the question – “Who is my audience?” A dashboard always needs to start with an audience in mind. As you design the dashboard, understanding the consumers of the dashboard will help you build a product that they would love to use. It is important to highlight one point here. Even though in an ideal scenario you would like to have a uniform type of audience, however, in practicality, every dashboard would have multiple audiences with different requirements. In order to handle conflicts, it is crucial to prioritize your audience based on the business criticality. At the same time delivering the same dashboard across an entire organization has the potential benefit of getting everyone on the same page.

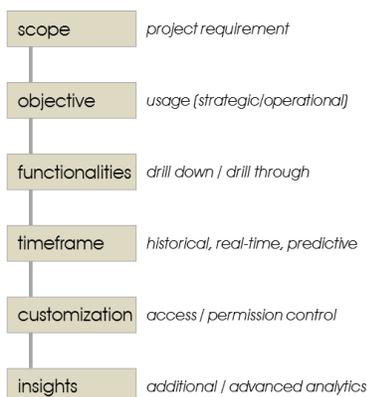
Once done with identifying the audience, start by asking, “What is the information that would help the audience make the right business decisions?” These answers are the ones that would be used as key metrics. While identifying the key metrics, do ensure that they are all actionable information with a common understanding across organization.

When ready with the structure of the dashboard, what is required is to identify the appropriate tool/application that could be used to build the dashboard. There are a number of BI applications available in the market which allows a great degree of visualization and interactivity. The world of data visualization has been ever growing with new features and functionalities being added on a constant basis. Today there are tools with in-built statistical capabilities. Choosing a tool would mostly depend on the company's requirement in terms of data size, application functionality, robustness, data security, and most importantly budget allocated to the project.

Execution

At OSG we take pride in delivering custom based high-end dashboarding solution for various clients ranging from multiple industry verticals.

Our strength lies in the core of our methodology, of understanding our customers and their overall objectives. We align ourselves to the client's goal and propose a solution which addresses the root concerns and allows them to make effective business decisions towards overcoming issues/business problems. The dashboarding solution essentially covers multiple steps.



We start by interacting with the client to understand their business. We believe unless we are able to follow their objectives and core values, it would be difficult to relate to their concern, keep aside finding a solution to those. Once we have a proper understanding of their business model, we get into the concern areas. This is where we start collecting information which is more specific in nature and relate directly to the problem areas. At OSG we realize that the best returns on analytics comes from beginning to define the “objectives” and set forth the “hypothesis”.

The below flow would highlight the method we follow for assessing the situation.

The delivery channel, level of interactivity, analytical capabilities and timeliness of data, will vary based on the situation.

In the case of our client marketing more than 1000 SKUs across India, our objectives were two-fold:

1. Delivery System: Building an integrated delivery system with visual data representation from multiple discrete sources.
2. Support Marketing Decisions: Perform fact-based analytics of visualized data to initiate and execute successful marketing activities at a strategic and tactical level.

After careful consideration of the client's requirement, OSG proposed a marketing dashboard with following functionalities:

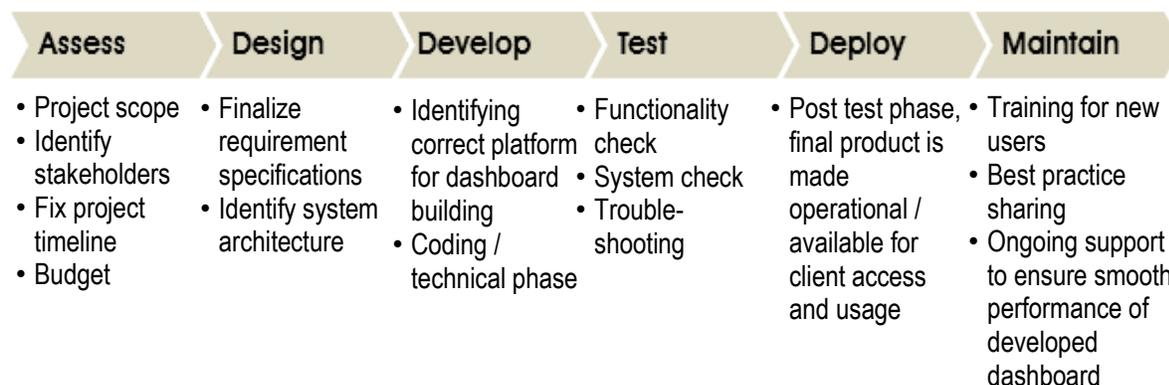
- An integrated dashboard
- Web-based interactive platform
- User Accessibility round the clock
- Drill-down and aggregation capabilities
- Continuous Data Appendability
- Data Confidentiality

For enhanced decision making, the dashboard was enabled to incorporate an automated early warning alert system to proactively identify potential issues, profitability metrics, promotion calendar, and predictive capabilities. The most critical technological requirement was speed of delivery of data visualization, be it drill-down capabilities or aggregation capabilities. Other requirements included data security, secure access to the Client users, ability to host large amount of data on an on-going basis.

Specifically, SQL and .NET were used for data integration, programming and data visualization. In addition to this, efficient conversion of excel-based data to database-friendly format, customized visualization for certain unique displays, and extensive rounds of testing were critical for the success of the deliverable.

The dashboard development is typically executed following a 6 phase process flow, known as OSG's Dashboard Development Life Cycle Process. The phases/stages of the lifecycle are detailed in the below schematic representation.

OSG's Dashboard Development Life Cycle



Benefits

When the Client research team rolled out the marketing dashboard, the marketing team immediately realized several benefits which were considered extremely significant, given the challenges faced in the past.

- **Ease:** The need for accessing different files for the required data was instantly eliminated.
- **Efficiency:** The charts did not have to be recreated due to the capability of transportability across documents eliminating effort and errors.
- **Accuracy:** Due to built-in calculations, the need for users to introduce potential errors in the front-end was eliminated.
- **Reduction in Support:** With the automation of calculations and availability of user manual, the need for ongoing support from the research team to the marketing team was significantly reduced.
- **Benchmark:** The marketing team was able to cross-verify data and reports from other sources against the data displayed through the dashboard.

Challenges

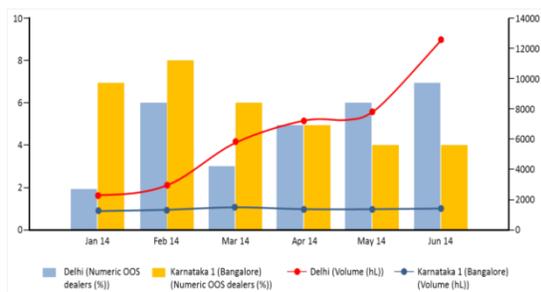
- Comprehending the different metrics (used to measure the performance of the brand) and their correlation.
- Mapping of products marketed under different names, in different markets.
- Varying depth of information across data sources e.g. pack type (Bottle, Can, etc.) info was present in one of the sources and absent in the rest.
- Market definition varied across data sources, resulting in revisiting market structure in order to tackle the issue.
- Identifying the appropriate chart for effective representation of data and also allowing multiple views / options for easy usability of end user's.
- Managing the ever-growing data in terms of monitoring, cleansing and arranging.

Recommendations

- In OSG we believe a tool-based approach towards analytics is not sufficient. The right stratifications, predictive models, along with human actionable heuristics developed by data scientists can lead us to conducive outcomes.
- For any dashboard with real-time data, structural efforts are required to collect the data in shorter time frames. Consistency in metrics across disparate resources would minimize back-end processing significantly bringing it closer to a 'real-time' delivery.

Exemplars

Some of the screenshots from the dashboard are provided below with a description.

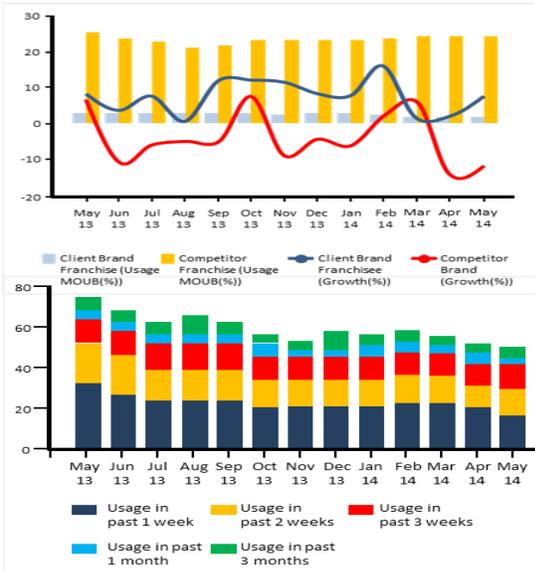


Brand Performance & Out-of-Stock- Market Comparison

Two client markets were compared on two metrics – Sales Performance and Out of Stock which are integrated from two different data sources. One market shows a need to better manage its OOS issue to match market demand while the other market has been successful in addressing it over time.

Most Often Used Brand and Growth Rate

The performance of two brands is compared on Growth and Most often used brand (metrics from two sources).

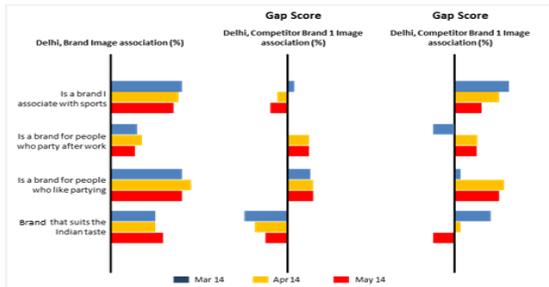


Most Often Used Brand and Growth Rate-Past Usage

Clicking on any of the bars representing the metric - Most often used brand is broken out into sub-components in terms of usage in the past week, past month, past 3 months, etc.

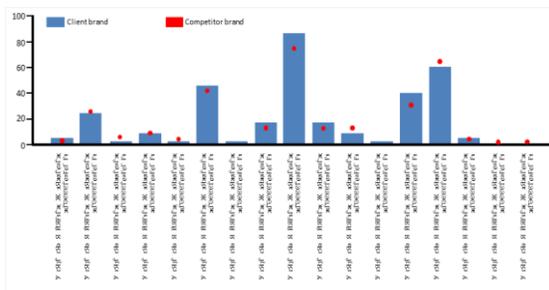
Brand Association: Gap Comparison

Data for select brand association statements for the client brand and the 'gap' numbers between client Brand and selected Competitor Brands visually indicate how well or poorly a client brand is associated with a statement.



Touchpoint Association: Brand Comparison

Screenshot 4 displays the position of multiple brands on various touchpoints.



Moving Forward

We hope this information has been interesting and valuable to you. Please, feel free to share it with colleagues and other people in your network. We look forward to starting a dialog with you about this topic and sharing more information about our knowledge and experience in this field.

Start the conversation with us by emailing us at contact@optimalstrategix.com



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About OSG

OSG is a Catalyst for Customer Centered Marketing. We help companies become truly Customer Centric through a blend of marketing research with consulting services that define strategies and develop operational plans. Whether rolling out new products to market or reshaping market positioning, our clients rely on us for gathering the information necessary to make strong strategic business decisions.

Find out more us on **www.optimalstrategix.com**