Reducing Time to Market Through Data and Analytics.

Three steps to accelerate product innovations with data management and analytics capabilities.

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Executive Summary

Reducing time to market of new products through faster innovations has become central to companies across industry sectors. Understanding customer needs is at the epicenter of that effort and (big) data & analytics is now commonly accepted as the tool to use. However, companies struggle to implement (big) data & analytics into the organization due to its cross functional impact.

To tackle this challenge we as Campana & Schott recommend introducing an Analytics Center of Excellence (ACE) and outline a stepwise approach to specify its mandate.

While we recommend tailoring our approach to company specific needs, we elaborate on several key success factors. These success factors serve as guidance for the effective introduction of an ACE and consequentially analytics capabilities into the company.

Introduction

In today's world, innovating, especially in the form of new products is an imperative competitive competence across industry sectors. The yearly introductions of new smartphones are just one out of many examples that corroborate the pressure to reduce time to market of new product innovations. With many business factors playing a major role to optimize and streamline product innovation, gaining customer insights has the highest impact (ean, 2016). Formerly done by lengthy market studies, it is now commonly accepted that (big) data and analytics is the tool to use to comprehend customer needs (Bean, 2018). Consequently, corporate manager within marketing and sales face the challenge of effectively integrating analytics into their organization.

In the simplest way that is done by assembling a team of data analytics and business experts who collect data and provide information about customer needs. However, most companies – especially such with a legacy IT infrastructure – struggle with this task. Beside getting analytics talent is still an issue, we as Campana & Schott find that companies often start prematurely with analytics, missing a clear vision (Carande, Lipinski & Gusher, 2017). Often, Teams are created either within IT or business departments and assigned with the task of gaining customer insights. Usually this results in frictions, because either the IT misjudges the required information or the business side overestimates analytics capabilities. To tackle this dilemma, we recommend establishing an Analytics Center of Excellence (ACE) within the organization. This ACE is defined as a cross-functional organizational entity that combines all (business and IT) analytics activities, centralizes competence and offers analytics advisory. As such the ACE captures business requirements regarding analytics topics and offers development and operation of analytics solutions. Central to the ACE is a clear mandate that is backed by top management. Such a mandate specifies accountabilities and responsibilities of the ACE within the organization and ensures that the team concentrates on providing insights rather than being bogged down by company politics. To define the mandate of the ACE within the marketing and sales context, we propose the following step-wise approach.

1. Step One: Marketing and Sales Analysis

In a first step, the marketing landscape needs to be mapped to understand and assess where analytics is best suited. A clear comprehension of marketing and distribution channels as well as the connected customer journey helps to identify the biggest potential for analytics. An evaluation of the underlying business processes and respective process owners allows an integrated view on how organizational structures ought to be changed for analytics solutions. Based on this integrated view, a focused analytics strategy for marketing and sales can be derived, which supports the mandate of the new ACE.

Remember a few key basics of any strategy when doing this (Sull, Turconi, Sull & Yoder (2018):

- Limit the analytics to a few key priorities that were defined when mapping the marketing and sales landscape. Don't try to change everything at once.

- Focus on midterm objectives and always keep in mind to define KPIs that provide an unambiguous measure on how analytics solutions perform in comparison to legacy practices. Be sure that everyone understands the additional value of the ACE for their daily work as soon as possible.

- Pull towards the future and don't be afraid to define objectives that seem currently out of reach.

- Finally, provide a clear guidance on how the ACE will move forward and optimize the existing processes at the business side.

2. Step Two: IT Analysis

Once the marketing perspective is sketched, a coordination with IT can commence in step two. This step is indispensable in context of data & analytics initiatives; since customer data insights generation builds on the right IT-architecture. The frequently applied comparison between oil and data comes into its own here, as both do not add value without the appropriate infrastructure and distribution. Therefore, we recommend an in-depth assess-

ment of the IT architecture. Understanding IT architecture as a formation of all infrastructures, management instances and interfaces required to organize IT and to support the business.

Figure 1 displays the Campana & Schott best practice overview of the infrastructure necessary for data & analytics in context of product innovation within marketing and sales:
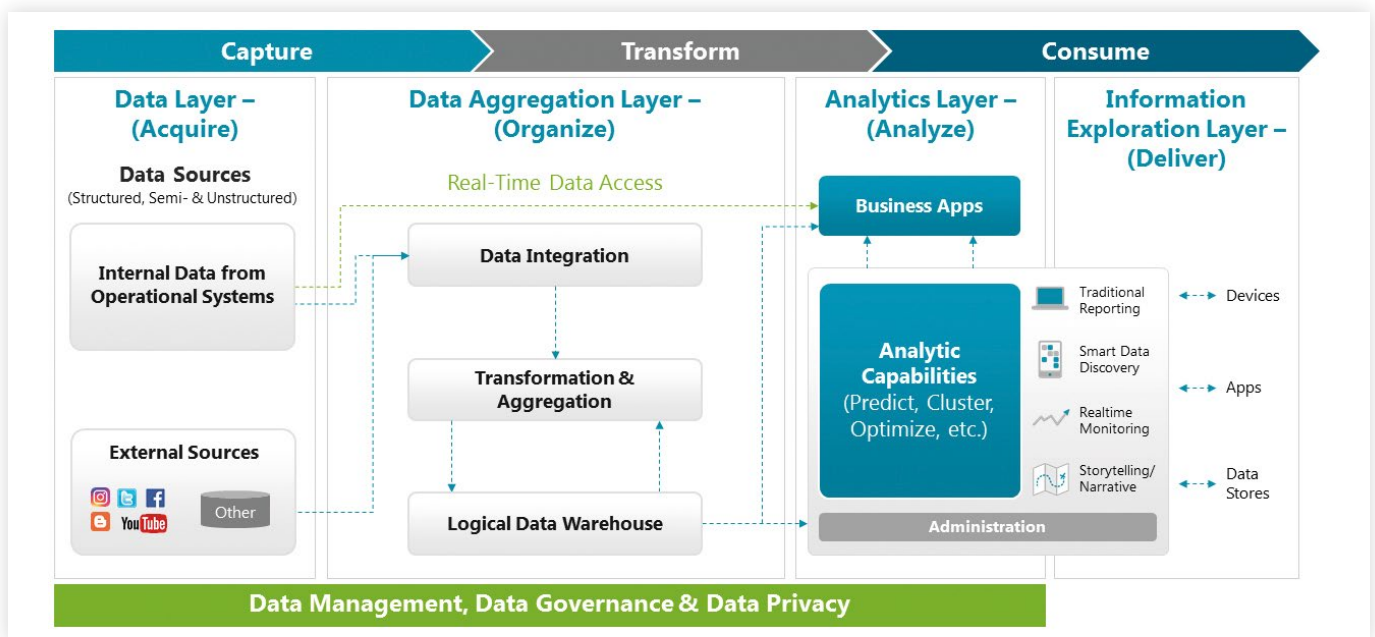

Figure 1: Campana & Schott best practice end-to-end data & analytics architecture following Gartner 2016 & Wang et al. 2016

The data & analytics architecture is divided into the 4 layers **Data, Data Aggregation, Analytics** and **Information Exploration.**

The Data Layer includes all required sources of data to gain insights for product innovation. Besides internal sources, external data sources play a huge role for the overall objective of providing customer insights to speed up product innovations. Especially social media data supplies companies with valuable insights about customer needs, competitors and own products. Imagine automatically analyzing any Youtube-, Facebook- or Instagram-review and every Twitter comment for a 360 degree customer feedback on an existing product. Possibilities are extensive and therefore marketing and sales must define which internal and external data sources provide the highest potential. These sources have to be integrated into the architecture and linked with interfaces to the **Data Aggregation Layer.**

Within the **Aggregation Layer,** the data from the various sources must be acquired, transformed, aggregated and finally stored. All these steps require a thorough technological understanding and management of interfaces within the IT architecture. The data storages have to fulfill any legal regulation, internal data governance policies and access controls, leading us to an often underestimated but important topic of data & analytics: data management/governance and data privacy.

Within these topics, the IT department has to analyze the existing knowledge and ongoing initiatives already aiming at high data quality through clear responsibilities and guidelines for data management. Data management is defined as "the devel-

opment, execution, and supervision of plans, policies, programs, and practices that deliver, control, protect, and enhance the value of data and information assets throughout their lifecycles" (DAMA DMBOK 2018). Any organization aiming to take action in analytics can't solely rely on technological changes. It is also a matter of organization (roles & responsibilities), generating high quality data (Master Data Management, Meta Data Management, etc.) and ensuring data security. Furthermore, an essential key success factor is GDPR conformity to ensure customer data privacy compliance. Particularly when speaking of data & analytics within the marketing and customer data context, these topics could potentially shut down any analytics initiative already ongoing or planned.

We recommend consolidating all forces working towards these goals to organize within an ACE to further gain and secure expertise and to provide a contact for anyone planning to use data & analytics.

The **Analytics Layer** is where the magic happens. Data analyses are conducted following business objectives through a variety of algorithms.

Finally, the **Information Exploration Layer** provides the tools through which the marketing organization can consume the insights of the conducted analysis, resulting for instance in insights of customers' needs, clustering customers or gaining insights of a product's weaknesses.

We refrain from a technological deep dive into the last two layers as tools and algorithms are numerous and must always be tailored to the specific organization's needs.

3. Step Three: Defining the ACE mandate

The mandate for the ACE is based on the analysis of the Marketing and Sales context as well as the IT environment. Unique and company specific features require this to be conducted on a case by case basis. However, several important key success factors provide a framework.

First, the ACE should inherit accountability for the touchpoints where analytics solutions are operated and should be involved in the design of the customer journey. Touchpoint accountability is essential, as it provides relevance and scope of action for the ACE. Usually, the implementation of analytics solutions comes with a gradual replacement of business to analytics rule based customer recommendations. Without operative accountability the ACE is significantly restricted in implementing measurable change at the touchpoint as coordination with the marketing and sales department about business rule replacements will impede progress. Similarly, a co-responsibility of the customer journey design ensures that the orchestration of analytics solutions receives necessary attention within marketing and sales.

Second, the ACE needs accountability for the customer data governance within the organization. As described, data is the lifeblood of analytics solutions and the correct integration of the outlined end-to-end analytics architecture is imperative. As customer data governor, the ACE can ensure, that the required data quality is maintained, data privacy is implemented correctly, and master data is managed efficiently. To properly execute this role, the ACE needs priority access to the implementation of new IT requirements and changes within the IT infrastructure. Furthermore, the ACE should act as a consultant on process alterations within the IT department.

Third, the ACE must be the center of analytics competence within the organization. As such, the ACE is responsible for defining and administrating the direction of the analytics policy throughout the marketing and sales department. Furthermore, it must enable change and coach employees in the new analytics solutions wherever necessary.

Key takeaways

The integration of analytics to reduce time to market is not an easy task for most companies. However, with a thoughtfully defined vision and a well specified analytics strategy, this task can be mastered. For this paper we focus our attention on the processing of customer data and recommend the integration of an ACE as a cross-functional organizational entity to execute the analytics strategy. To define the mandate of this ACE, we outline a stepwise approach to analyze the marketing and sales context as well as the IT requirements. While the definition of this mandate is company specific, we provide a set of key success factors for the ACE. These success factors include customer touchpoint accountability and co-definition of the customer journey, data governance accountability and administration of the analytics policy.

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