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Any data-driven business needs a data strategy

by Martin Luckow

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You've probably heard that your data is your treasure chest that you need to use to become "data-driven". But that's not where the story ends: your data is in fact the ore from which you first have to extract the gold to be able to make the most of the treasure... and we're not just talking about gold. Surprises often turn up in things that don't glitter.
To stay with the image: would you go off and start digging random holes around your property to try and find gold? Certainly not, you may say ... yet companies often do precisely that. Interested in a plan?

Being "data-driven" promises many benefits – starting with the hope of being able to make faster, better and perhaps even automated decisions. What data-driven actually means, however, is often unclear. Take your company, for example: basically, it has always been data driven, because if it hadn't responded to external "data" quickly and successfully from the outset, for example, it would have gone bankrupt a long time ago. That all makes perfect sense, you may say. So why do we need this definition in the first place?

One thing is certain: data-driven sounds cool. The term rolls off the tongue and conjures up so many different ideas. When it crops up in a discussion, everyone starts nodding in agreement and with a little imagination, it can appear to be the sure-fire answer to every company's current needs. It's no surprise that this term is so malleable because if you look up the literal meaning of the word "data" in Wikipedia, it actually says that, although the terms data and information are often used interchangeably, "the two terms in fact have distinct meanings" To increase the confusion, look the term up in a dictionary – for example in Gabler Wirtschaftslexikon.

To take things to the extreme, "driven" can mean "impelled" or even "possessed" – but perhaps we'll leave the latter to one side. So in business terms, data-driven means your company should be "driven" by something which – according to Wikipedia – isn't precisely defined. Being "driven by something" does not necessarily have a positive connotation – especially if you don't know exactly what it is. It sounds slightly pathological somehow ... or like a paradise for consulting firms

By now, you're probably confused about why we use the word "data" when we actually mean

"information". And you're right – data are simply units of information, whether in scientific research, business management, finance or governance. But in order to ensure this article can be found better by search engines, let's stick to "data-driven" for the purpose of this discussion. More precisely: "data-driven business". And how you can profit from this confusing concept – after all, the term is actually very far-reaching. Here we can explain this in more detail.

Data-driven Business

Bis heute werden Daten oft eher als Nebenprodukt To date, data has often been perceived and treated as a by-product of a business activity or process. The collection of customer data in a CRM is a classic case. During the sales process, data is captured – sometimes even piled up during campaigns – only to be used rarely afterwards if there are no follow-up measures (e.g. customer service, special reports or audits, etc.) to ensure its use. You'll be familiar with the collateral damage: outdated, incorrect information … just a few such examples are required to permanently destroy trust in the entire CRM.

But here we're talking about more than just a tidy CRM. Finding a definition isn't easy, however, because as already suggested, the literature offers many ways of how to achieve a data-driven business but not what it actually is. Start by going to Gartner and follow the links provided. You'll learn a lot there but then, for the fun of it, try looking at Forrester, where you'll notice they successfully avoid the term, using "insight driven" instead. You don't need to consult the aforementioned economic dictionary. You won't find anything there. In short: you won't find a concrete definition that suits you. However, you'll find a lot about what makes data-driven business so special and what it might mean for you. Let's stay with the example of CRM. Two key aspects of data-driven business can be identified here:

1. Data management
   In order for the information contained in CRM data to remain valuable, it has to be managed. For this reason, data has to be subjected to a life cycle. A trivial matter? Check out your CRM!

2. Successful data handling
   This means the ability to handle a wide range of data and derive concrete added value from it. Whether customer data, measurement data, IoT real-time data, analysis data, monitoring

and log data from IT systems, data from existing dataware house solutions or even external data from social networks, Internet or business partners – all of this is available today and can be used.

The second point is crucial. If misunderstood, it can lead to chaos. Companies talk about the universally popular 360-degree view of all areas of their business, for example. But with all the talk of data and possibilities, the most important things tend to get forgotten: the concrete added value to customers and the company. To maximise this added value, you need to:

1. Avoid information loss
   This means that tailoring data can result in the loss of valuable content. The problem: you don't know today what data will be valuable tomorrow. For this reason, the apparent "waste" is removed, e.g. by forcing information into classic databases. Keep this type of data in its raw format.

2. Avoid data silos
   Imagine you're a sales person selling your product. And things haven't been going well for some time. But all you can see is the numbers. Of course, you conduct an extensive root cause analysis using the resources available to you in the sales department. But if you had access to the sales figures of your production department, they could show that the decline in sales started shortly after an apparently minor change in the product, which might indicate a quality problem.

Essentially, point 1 is a technical issue. Don't throw anything away – it could pay off later.

Point 2, however, confronts organisations with a challenge: technical and organisational boundaries have to become more permeable so that everyone can potentially benefit. However, if processes and culture reflect the obsolete belief that data is only a by-product, there is a fundamental problem: companies intuitively search for "data personnel" to "do something" with their data – one reason why the market for data scientists, data engineers and AI specialists has been drained. What's surprising is that this search for data specialists seems to be done without a specific plan in mind. Most companies' first and only thought is how to recruit these data experts … but they don't flesh out a

strategy of how to get the resources these experts need to do their job.

The often visible effects of this ad hoc approach: untapped potential combined with highly qualified and highly paid data scientists who have to manage issues for which they have not been trained and hired.

Your task now is to apply all of this to your own company and use it to create a core model for your data-driven company … if all this reminds you of strategy work, then your memory serves you correctly.

Data strategies

Why should you take a strategic development approach to a data-driven business? The idea is to ensure that all data is available in a way that makes it easy and efficient to use, share, move and update. A data strategy ensures that data is primarily seen as an asset and not as a by-product of any application. By establishing relevant processes, common methods and practices for managing, editing and sharing across the organisation you can ensure that goals and targets are aligned for the effective and efficient use of data. As a result, data strategies are closer to the business and its processes than to technology. The technical response to the goals formulated in it is initially provided by the IT strategy.

Without a data strategy, there is no solid foundation for upgrading data in the company. As long as data is seen as a by-product, challenges cannot be solved strategically, but only tactically by hiring data specialists. Instead of having the clear goal of transforming data into knowledge, they are given access to a database, receive requests to execute queries and create a report … any basic analysis tool combined with an experienced member of the department could perform the same task.

As long as data scientists spend most of their day extracting, adjusting and modelling data without knowing how to solve an actual business problem or create a new business opportunity that could generate revenue or profit, this is simply too expensive and far removed from the concept of data-driven.

Ways to a data strategy

What should you do? Now we come to the specifics. The first step is the most important: At the highest

level, there has to be recognition that data is valuable and will become even more valuable in the future. This is where persuasion is involved: talk to people who are at the end of the (data) food chain and are often satisfied with the reports they have presented to them, perhaps apart from the actual content. So your first task is to arouse interest: data deserves the attention of management.
After that, it's a good idea to look at your company's value chain. The primary activities this time are the "unimportant" ones. From a data perspective, secondary activities are precisely the instances that both require and deliver data. Often these secondary activities are identical to departmental or area boundaries – a great way to start determining actual data needs, data output, results presentation and associated protocols as well as identifying bottlenecks. This procedure forces the issue to be dealt with throughout the organisation. This allows you to avoid data-driven projects based on inter-departmental, isolated facts and silos.

Once you have the general overview, the actual strategy work can begin. This does not differ from the process of developing other strategies, but the following points should be considered and relevant content developed. At a strategic level, this content will formulate how to adapt "data-driven" to your needs:

1. Classification and interaction with other strategies
    a) Presentation of the scope of the data strategy
    b) Areas of validity, delimitation and non-competence
    c) Presentation of the interaction between the organisation's individual strategies,
        i. interaction with the Group strategy
        ii. interaction with divisional strategies
        iii. interaction with the digital strategy
        iv. interaction with the IT strategy
        v. interaction with the BI strategy
        vi. the same with reference to IoT, AI, etc.
     d) Definition of time horizon and relaunch

2. Alignment with business strategy
    a) Interpretation of business strategy from a data perspective
    b) Alignment with the business strategy as follows:
        i. define von 1-5 asdf strategic high-level use cases to be achieved through the data strategy e.g.
        1. improve decision-making

2. improve processes
        3. data monetization
        4. enable new business models
    c) define 1-3 further use cases as quick wins
    d) identify decisions to be taken to implement use cases

3. Requirements and specifications for the data basis
    a) determine what data is needed to solve the use cases
    b) Rough qualification, e.g.
        i. semantics
        ii. availability
        iii. volatility
        iv. heterogeneity
        v. internal/external
        vi. new/existing
        vii. structured/unstructured

4. Specifications for data provision
    a) Assessment of the current state at strategic level, presentation of future state
    b) Specify the approach for data acquisition and collection
    c) Determine where the data should come from
    d) Roughly specify the measures required to make the required data available, e.g.
        i. availability of sources
        ii. define interfaces
        iii. coordination measures with various parts of the company
        iv. clarify legal aspects

5. Specifications and objectives of data analysis
    a) Assessment of the current state at strategic level, presentation of future state
    b) Determine how data can be converted into knowledge.
    c) At a high level, identify the
        i. tools,
        ii. algorithms,
        iii. processes and
        iv. approaches
        that are required to generate actionable insights that flow into business decisions.

6. Necessary prerequisites for data analysis capabilities
    a) Evaluation of the current state: inventory
        i. internal data and
        ii. existing skills
        iii. existing analytical methods and capacities

    b) Describe future state based on the use cases
    c) Identify qualification gaps and other vulnerabilities and authorise high-level measures, e.g.
        i. elaboration of detailed measures,
        ii. training requirements,
        iii. promote talents,
        iv. insourcing,
        v. outsourcing,
        vi. partnering

7. Visualisation and reporting requirements
    a) Based on the strategic use cases:
    b) Define visualisation and reporting requirements
    c) Consider the scope of access to data summaries and reports
    d) Identify the frequencies, access and tools required to use the useful information.

Now we come to an unpopular but nevertheless important topic. It can give rise to your best visions and ideas ad absurdum:

8. Specifications on data security & governance
    a) Consideration of legal requirements, theft protection and prevention of malicious attacks;
    b) Establish data security strategies (i.e. customer information, encryption, firewalls, data segmentation, access)
    c) Limitation of data quality, ethics, data protection, ownership, access and security requirements
    d) Define framework conditions for compliance, data maintenance, access, etc.
    e) Identify high-level enforcement actions for compliance, data maintenance, access, etc.

After that, it will only seem easier – because you then have to align it with the IT strategy.

9. Specifications for technology and data infrastructure
    a) Target image of a data-centric digital platform
    b) Rough specifications for a technology and data infrastructure for the implementation of use cases.
    c) High level requirements that require data integrations, data storage, organisational capacity and security firewalls.

10. Alignment and operationalisation
    a) Disaggregation of the strategy via target systems into the various sections of the

organisation
    i. Establishment of programmes and projects
    ii. Definition of delimitations and responsibilities, roles and alignment processes
    iii. First roadmaps
b) Design of systems of indicators that meet the information requirements for controlling
c) Establishment of consistent performance management systems for effective controlling

The points above are in fact just a table of contents. That is a lot to process and flesh out. But it sets out what data-driven means for your business and needs to be explicitly elaborated, because without these guiding principles there is the risk of not improving the speed and quality of your decisions despite all your efforts – simply because the overarching goal is missing from the equation. Like digital strategies, data strategies can be quickly overtaken by technical developments. This applies in particular to the potential that artificial intelligence is currently developing together with IoT and e.g. 5G networks. Much of this potential is well suited to enabling new business models in the short term... or replacing old ones. Every data strategy must be reviewed at regular intervals.

About the author

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