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Challenges of building a data-driven organization

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Challenges of building a data-driven organization

If nearly every organization is dedicated to becoming data-driven, why is it so challenging to achieve? The technology is there, but the culture is not. Let's dive below the surface of a data-driven transformation.

Key takeaways

1. Every journey towards becoming data-driven is unique. Nevertheless, it does need to happen if organizations want to outperform, or simply keep up with their competitors.

2. Clear business goals need to be identified and shared throughout the whole organization. The relationship between data and business must be understood.

3. Companies need to be on the lookout for innovation and new technology. And, in their best efforts toward their data-driven transformation, they need to remember about the human factor – keep the corporate conversation about the importance of data going, and encourage employees to adopt a smart data mindset.

4. Data culture is a must-have. Efforts should also be put into data democratization as well as data literacy. And, bear in mind that it does not require being technical, but speaking the basic data language and drawing insights from data.

5. Excellent solutions, even for non-tech people, are certainly available. Along the way, remind your employees that this transformation and technology is for them, not to replace them.

1 What does it really mean to be data-driven?

Data-driven decision making is becoming a norm engraved in the business minds, creating new possibilities for leaders. The question we sometimes omit to ask is what exactly does the term 'data-driven' mean? Does it have a universal meaning, or does it differ – depending on one's goals? The term might come across as self-explanatory, yet it is not, at least not completely.

When searching for a definition in lexico, we read: 'determined by or dependent on the collection or analysis of data'[1]. However, there is more to that. Collecting data and making analyses based on it seems incomplete. Being data-driven requires understanding and responding to the given data, and even then, the interpretations may differ[2].

Let's go over the crucial elements of the approach, starting with basics such as data collection. It is the undeniable beginning, but collecting just ANY data is insufficient. What is needed is accurate, up-to-date, high-quality, unbiased, and reliable data. And, what is more, the data should come from different sources, covering as many relevant areas as possible, in order to avoid the risk of being selective – where what is disliked, is simply left out.

> **Data really powers everything that we do.**
>
> – **Jeff Weiner**, the executive chairman of LinkedIN

This brings us to the data sharing culture in organizations, which is considered a must have (and will also be reflected upon in the next section). Decision making should be a connected process, with insights gathered across organizational boundaries.

Now, let's assume that what we have is diversified data, accessible in real-time, for everyone, so that we can start the process of extracting the necessary information out of that data.

> **You can have data without information, but you cannot have information without data.**
>
> – **Daniel Keys Moran**, American computer programmer and science fiction writer

There are many tools available to help with processes such as organizing, filtering, aggregating, visualizing data, etc. In any way that we do it, though, it all leads us to data analysis, where we can finally draw insights, measure the performance of specific business areas, and make predictions about the future. With those insights, decision making becomes not only easier, but foremost, better.

There is also another ingredient of decision making based on data that should be mentioned here. Many believe that the true value of data is in its use and in the context. Victoria Bernhardt, an American author and scholar, once said that 'true data-driven decision making is only partly about data. A clear and shared vision and leadership play major parts in data-driven decision making'[3]. Data does not literally drive decisions; it is the decision makers who ask the right questions and use data to get a holistic view on a matter.

To conclude, being data-driven is made up of many parts, not limited to collecting, organizing, sharing, analyzing, and interpreting data. There is a mix of technological and human aspects to be considered when aiming to implement this approach successfully.

And, although it may sound straightforward, too many organizations miss the potential of benefiting from having a data culture in their organization.

2 The unlocked potential of driving data culture

One part of leading an organization towards the data-driven direction is forging a data culture. This process does not happen overnight. It requires overall commitment and setting understandable and clearly defined goals, but is definitely worthwhile and highly rewarding in the end.

Introducing an organizational culture of 'believing' in data is becoming more and more important. Through a culture adapted with transparency, strong leadership, and appropriate tools, an organization's talent pool will be infused with data mindsets that can ultimately transfer into a competitive advantage, and result in better decision making[4].

The issue of how crucial it is to make data accessible without barriers to all employees in the company (i.e. data democratization) has been raised countlessly. In a recent report, Exasol states that '90% [of surveyed business leaders] said that achieving data democratization is now a priority for their business and that they are taking the necessary steps to achieve it'[5]. It is not a question of 'if' but 'when' will this approach be implemented.

Some organizations already expect their decision makers to rely on data, not mere instincts. Too often, however, data seems as if locked under a key, somewhere only a select group of experts has a way to reach, leaving the rest of the organization patiently (or not) waiting for their services and the required information.

The NewVantage Partners' Big Data and AI Executive Survey provides a great report on the state of the data-driven transformation.

This annual survey was carried out for the first time almost a decade ago as a response to the need to understand the potential impact of Big Data on business by Fortune 1000 C-suite. A lot of progress has been made since then. However, despite the commitment, driving data culture in organizations still appears to be an immense challenge[6].

This year, 85 of Fortune 1000 firms were represented in the survey – the highest number since its launch in 2012. Most of these companies (66%) are in the financial services sector. Although strong investments in data initiatives can be seen – 99% of surveyed companies report active investments in AI and Big Data – only 24% of respondents state that they have created a data-driven organization, and a similar percentage of 24,4% declares a data culture forged within their organization[7].

This seems like a good time to pose the question: why exactly is becoming data-driven so challenging?

3 The reality of becoming data-driven. The challenges that companies face

Before moving on to the topic of the many organizations struggling with their data-driven transformations, it is best to start by identifying the underlying causes.

The COVID-19 pandemic has already proven that we can accelerate. Years of digital transformation have been achieved in just months[8]. It should be recognized that when it comes to technology, this seems to be the era of not 'if' but 'when', not 'why' but 'why not'. With data and technology at your fingertips, there is no other way but forward.

Surely, not every company may have invested in the right tools yet, but the solutions to make the most out of our data are certainly available. Plenty of new tech has come to the market, supporting also – or maybe especially – the non-tech people.

At the same time, when implementing technologies that are believed to be a perfect fit for a company, corporate cultures and talent need to be ready to successfully use those solutions[9]. It is not about technological challenges, then, but rather the cultural ones.

First of all, the notion of data as an asset should be understood by the whole organization. To fully benefit from the potential of data, a company must put emphasis on embedding data in their values. However, none of that will happen, if the communication is weak[10].

The absence of effective communication and no clear statement of goals lead towards failure. People are more likely to follow an idea if they are aware of the expected outcomes and values. Furthermore, employees should not feel like their expertise or

knowledge is being attacked. Transparency throughout the process is crucial. Data goes through every door of an organization and, to emphasize it even further, the importance of creating a data culture should not be dismissed.

Connected with the above is the issue of data democratization, which has been raised in the previous section. It is not easy to make decisions based on data while not being able to access it universally, in real time. In addition, when different departments of the same organization rely on disaggregated data and inaccurate reports, should their decisions be considered reliable?

The other aspect is data literacy, which can be summarized as an individual's ability to understand, work, analyze, and argue with data on a sufficient level. The employee does not need to be a data scientist to be data literate. Nevertheless, as Piyanka Jain, a bestselling author and a data science expert said, 'data is the new currency, it's the language of the business. We need to be able to speak that'[11].

Yet, as Accenture stated in their 2020 report, 'only 21% of the global workforce are fully confident in their data literacy skills'[12]. This fact cannot be ignored, and organizations that aspire to become fully data-driven should address the issue and work on empowering their employees' data skills. After all, quoting Miro Kazakoff, an MIT Sloan senior lecturer, 'in a world of more data, the companies with more data-literate people are the ones that are going to win'[13].

Another point is patience. As previously stated, it takes time and commitment to forge a data culture. When deciding to adopt a data-driven approach, a company needs not only a long-term strategy, but, moreover, the best efforts to execute it.

Technology cannot be simply thrown on employees. They should be given guidance, appropriate training, and time to begin using it effectively[14]. Focusing on the end goal and maintaining a clear vision can help power through the potential struggles ahead. The time put towards data will be compensated for in the future with smarter and faster decision making.

Taking all that into consideration, it can be stated that while investing in state of the art solutions is unquestionably vital, organizations need to remember about the human factor on their path to becoming data-driven.

4 Success stories of driving value from data

Even with as many challenges as companies encounter, there still is the light at the end of the tunnel. Instead of only theorizing about the benefits of being data-driven, let's go over a few examples of the companies who did it.

It is best to begin with a company definitely worth mentioning for its renowned data culture and data democratization, Revolut – the UK's most valuable fintech. The company recognizes the importance of data in its daily operations. Each day, it maintains around 800 dashboards. It also puts effort into running queries faster, despite the growing volume of data. Moreover, Revolut provides its employees with self-service tools for data analytics and access to insights in real-time[15].

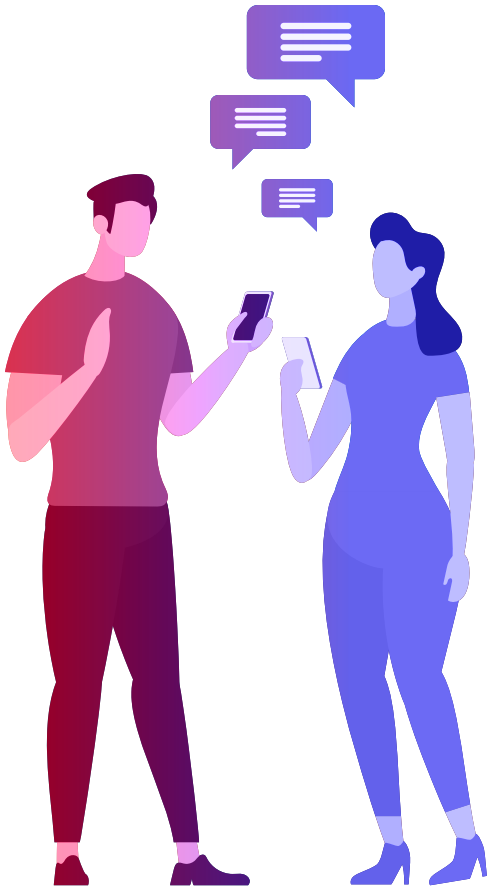
Another example is an instantly recognizable company, Netflix – one of the leading entertainment services in the world. The company has declared itself data-driven since its origins. The idea is that the work of all of its decision makers is supported by self-service analytic tools[16]. With the self-created ecosystem for delivering its content, Netflix has easy access to consumer data. The company makes use of the broad database to improve its services in every way possible. Data and industry expertise help Netflix to get to know their subscribers well, taking personalization to the next level. They manage to make smart decisions in order to deliver the right content to each customer, exactly when he or she needs it[17].

An insurance industry company, Allianz Travel Insurance, is yet another one that was able to turn insights into revenue, all through making travel insurance smarter. The company uses data, machine learning, and AI to analyze its customers' needs and preferences, and create personalized offers in less than a second[18].

Honorable mentions go to hugely popular companies, such as Google, Amazon, Spotify, and Coca-Cola. However, let's take a look at a company not nearly as recognizable.

The story that deserves recognition is of Genki Forest Food Technology Group and their sophisticated use of data. This Chinese beverage startup founded in 2015, is known for selling healthy sugar-free drinks. Genki Forest describe themselves as a tech company, and recognize the value of innovation and R&D. Their marketing activities are also internet-centric[19]. The company's data-driven approach towards product iteration can be listed as one of the reasons Genki Forest grew rapidly in the last 5 years. After its latest VC round, the company has been valued at $6 billion[20].

To conclude, data is essential for businesses that want to triumph. There are lessons to be learned from corporations which achieved a successful data-driven implementation.



5 Where do you start the journey to becoming data-driven?

Whether your organization is only now thinking about adopting a data-driven culture, or has already begun the journey, there are a few questions that should be asked and kept in mind along the way.

How does your organization see data?

It should be determined whether data and analytics are part of your business strategy. Moreover, the said data strategy should be launched with leadership at its foundation.

Does your organization have clearly defined goals for becoming data-driven?

Transforming towards a more data-oriented corporate culture requires setting well defined goals and identifying desired outcomes. These need to be communicated throughout the whole company.

When it comes to data culture, should it be actively promoted across all levels?

The idea of data as an asset must be shared by all employees, not only at the top. Furthermore, your organization should take action to upgrade data literacy skills of your talent pool to a sufficient level.

Does your organization have technology solutions in place for implementing a successful data strategy?

Data culture, along with appropriate tools, is the key to a successful data transformation. Plus, the technology used should be

accessible company-wide, so as to support data democratization.

The points above are a summary of conclusions drawn from this paper. They are stated here not only for reflection, but also to serve as a guide to the process of becoming data-driven. Your organization needs to invest its time and resources into this transformation if it wants to take advantage of the benefits in the future.

As previously stated, being data-driven is more than just the right tools and applications. However, there is an impressive amount of technology that can support your data aspirations.

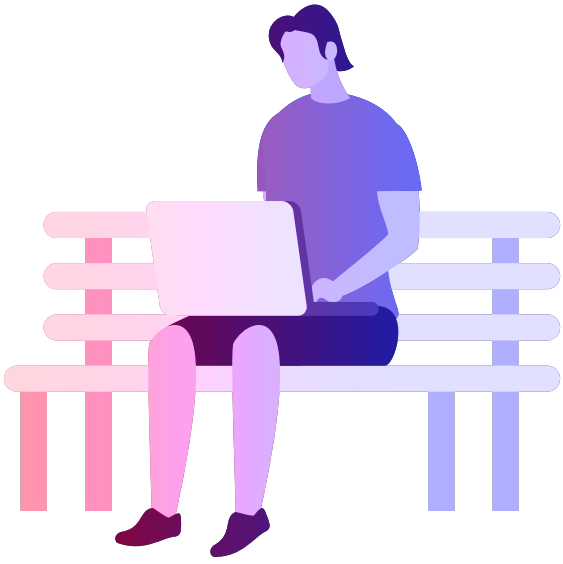
One of the technologies helping your organization become more powerful is business intelligence (BI). This technology is not new, but it seems to be getting smarter with time.

BI offers numerous capabilities from data extracting and integration, through real-time data analysis and visualization, to reporting and forecasting. It can be integrated with multiple sources, such as a data warehouse. The solution can support data sharing across the organization, while simultaneously putting security measures in place through permission management.

This technology can mostly be tailored to your organization's specific needs and used as a self-service tool so that your employees are supported by better decision making. Moreover, modern providers improve their offer with embedded machine learning (ML) and artificial intelligence (AI) solutions.

Drawing insights and making data-based decisions and predictions about the future have never been more advanced and easier at the same time. The technology has also become more practical and cheaper because it can be delivered in the cloud.

These are only a few of the ways in which technology helps to master data. The future seems even brighter still, as innovators want to take on the world with more groundbreaking ideas.



6 Predictions of the data-driven future

For the last couple of years, digital transformation has been observed across all sectors. 2020 brought technological development and acceleration to another level. Many companies have started to rethink the way they look at data as they are facing complex challenges due to COVID-19.

According to Michele Goetz, a Principal Analyst at Forrester, a data strategy fit for the future should be adaptive, resilient, and creative. Companies should continuously seek for new, cutting-edge technologies and not stick to the basics. They also need to be ready to respond to new regulations fast. And, while they work on the ways to improve their data intelligence, they must put efforts towards data literacy[21]. According to Gartner, 'by 2023, data literacy will become an explicit and necessary driver of business value'[22].

When it comes to decision making, data is crucial. Decision makers have to be able to respond to situations with a holistic and personalized approach. Decisions must be made in an organization as an ecosystem, with communication and transparency. They should also be made faster, preferably with the support of augmented technologies[23].

Nowadays, business intelligence and analytical solutions are no longer differentiated by their dashboards and related capabilities. It all comes down to which of the platforms performs better in terms of augmentation. AI and ML embedded into analytics are a trend that will only continue to expand[24]. In addition, organizations should take advantage of the cloud technology.

7 Closing words

To sum up, let's go back to the question posed at the beginning: why is becoming data-driven so challenging to achieve? All the answers explored throughout this paper eventually point to one concept – a culture organized through data.

When starting the path towards a data-driven future, organizations do not always think about what that term really means and what changes need to be introduced. Without realizing what the current state of data is, it is tough to prepare for the challenges that await. Chief data officers need to lead and communicate with the rest of the organization clearly. If the goals are not explained, the data not accessible, and not enough time is given to the employees to learn to be efficient with data and new technology, how can the data-driven approach be embedded in the business processes?

If what has been said here is taken into consideration, in time, your organization will benefit from the efforts made for data now.

Comarch Business Intelligence in Banking is a modern data analytics solution that, among its many possibilities, enables banks to extract data from various sources, create thorough analyses of banking-specific processes in real time, make faster data-driven decisions, and insightful forecasts. The solution can run on-premises, on a private or public cloud, and as SaaS.

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Footnotes

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