Building Data Cultures

May 28, 2021
Speaker

Sudaman Thoppan
Mohanchandralal

- Regional Chief Data & Analytics Officer at Allianz Benelux
- Business Sponsor for Global Tribe Data and Analytics
- Double Masters (Computer Science, Business Administration)
- Specialization in Business Analytics and Intelligence
- Doctoral student (Artificial Intelligence)

Connect with Sudaman on LinkedIn

Regional Chief Data & Analytics Officer
Allianz Benelux
This talk in a nutshell

1. Building Data Culture Theory
   - Building data culture for business value in a world of change
   - As business value advances, the value of people increases
   - What is the nature of change? Where’s the opportunity?
   - Applicable to all types of organizations

2. Building Data Culture — Allianz Benelux Case Study
Building Data Culture Theory
Business Response

For everyone  Culture Design

Change

Where’s the money?

Where’s the opportunity?

Yottabytes

Where are the people?
What it means to build a data culture

Not just a buzzword

Data Driven Decision Making

Requires time, change, and discipline

Requires building habits
Building data cultures starts with the end-user

Any building activity starts with an understanding of those whom we are building it for — this is true for data cultures.

Do we know (y)our business experts?
Building data cultures starts with the end-user

*Business Experts are passionate and follow their intuition & instincts*

Source — *Field of Dreams*
Building data cultures starts with the end-user

*Business Experts are artists and business is an art*

Carcass by Soutine

There are standards, techniques, composition and color [...] It's art!

*Source — Mona Lisa Smile*
Building data cultures starts with the end-user

*Business Experts believe in their experience*

If the poem's score for perfection is plotted on the horizontal of a graph and its importance is plotted on the vertical, then calculating the total area of the poem yields the measure of its greatness.

Source — Dead Poets Society
Culture change

Why change?

The nature of change

The opportunity in change
Why change? A snapshot of the financial industry

Changing Needs
Shift in demand from mass-market products to personalized services

Evolving Relationships
Personal relationships with customers but accentuated by data to stay relevant

Growing Resources
Untapped potential to customize service to each individual customer profile & preference by capturing & interpreting large volumes of data
Why change? A snapshot of the financial industry

B-2-C

B-2-B-2-C

Az

BPLEX-2-C
Nature of change

Use case: Risk premium model, effect on top of all traditional factors
Opportunity in change

Example: Advances in data science and medicine enable new transformative products and services

- Risk profiling based on medical history
- Outcome Based Patient Steering
- In Population Medical Trials
- Precision medicine
- Future Disease Prediction
- Cost Based Patient Steering
- Specific Disease Markers
- Second Opinion Conversion
- Medical Leakage
- Drug Interactions
- Drug-Disease Relationships
- Data Availability

Time Horizon:
- Immediate
- Short-term
- Long-term
How does this change feel?

Compelling & captures undivided attention

Source — Margin Call
Data culture is the base of capturing opportunity

- **Data, the new oil, void without mining**
  - Data as a stand-alone asset will be futile without systemic ways of value extraction

- **Radically different methods & ways of working**
  - Reverse in statistical modelling methods by starting with the business challenge & adapting to its dynamism

- **Dependency on several stakeholders**
  - Data in isolation is meaningless without the interpretation of numerous stakeholders in the value chain

- **Scattered data assets**
  - Data assets are generated across the organization & hence are dispersed

- **Behavioral change to adapt to environment**
  - Need to facilitate a cultural change to cope with the changing landscape
Data culture is **not just an option**

It is **business critical**

No adoption means no ROI on data analytics investments — just like wearing a ⌚️
The acceptance hurdles of data culture

Hurdle #1: Prioritization
The problem is not in understanding the importance of data culture, but in having to deal with the conflicting & unavoidable urgencies that pop up.

Hurdle #2: Sustained Investments
Giving sustained investments is crucial because it takes time to reinforce the loop.
When to invest in data culture

No one size fits all — not just at the beginning and definitely not at the end

- Why do we exist as a business for our customers and why do customers choose to do business with us?
- What is the type of information we need to serve the interests of our customers?
- What would we do differently to achieve that information and capability?

CONTINUOUS & ITERATIVE

<table>
<thead>
<tr>
<th>DEFINITION</th>
<th>MEASURE DEVIATION</th>
<th>APPROPRIATE RE-PRIORITYZATION &amp; INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>🎈</td>
<td>🚀</td>
<td>🏆</td>
</tr>
</tbody>
</table>
Successful Ingredients of a data culture program

Know your Impact
How are we generating value for customers?

Know the moves you need to make
What kind of decisions are different business functions making?

Know your default behavior
What habits are at play behind these decisions & how are data driven are these decisions?

Re-program redundant behavior
Diagnose habits to reinforce desirable behaviors

Prioritize energy
Select the right analytics initiatives and use cases

Develop project lifecycle
Develop a framework for data driven decision making to avoid numerous re-iterations

Track progress & re-calibrate
Monitor & measure ROI from data-driven decisions
A summary

- Discover, develop and deepen
- Nature and nurture
- Redefining ‘culture’
- The people agenda has never been more important
Building Data Culture
Allianz Benelux Case Study
Discovery — What is data culture for Allianz?

Building Data Solutions

Habits and routines
Discovery — What is data culture for Allianz?

Habits define the culture, and data related habits and routines will transform a culture into a data culture.
Discovery — The science of habits
The golden rule of habit change is to keep the cue, provide the same reward, but insert a new routine.
Discovery — Enabling elements of a data culture

- **Common language**: Data literacy and subject matter expertise are key
- **Data governance**: Setting responsibilities for data ownership
- **Continuous measuring**: Implement continuous learning loop
Design & Experiment — Data Driven Decision Making Framework (D3M)

Measuring and control creates the tool to impact a data culture. How to measure?

- Surveys
- Interviews
Design & Experiment — The components of D3M

Measuring and control creates the tool to impact a data culture. What to measure?

- 7 dimensions
- 7 operationalization areas
- 14 subjects
Design & Experiment — The components of D3M

Measuring and control creates the tool to impact a data culture. What to measure?

7 dimensions

- ✓ Data
- ✓ Strategy
- ✓ Technology
- ✓ People
- ✓ Process
- ✓ Customer Centricity
- ✓ Experimentation
Design & Experiment — The components of D3M

Measuring and control creates the tool to impact a data culture. What to measure?

7 operationalization areas

✅ Data Infrastructure
✅ Leadership
✅ Tools
✅ Data Literacy
✅ Embeddedness
✅ Customer Centricity
✅ Experimentation
Design & Experiment — The components of D3M

Measuring and control creates the tool to impact a data culture. What to measure?

- ✓ Data Availability
- ✓ Data Quality
- ✓ Vision & Strategy
- ✓ Role
- ✓ Modeling
- ✓ Communication & Support
- ✓ Relevance
- ✓ Usability
- ✓ Readiness (value, mindset)
- ✓ Ability (skills & behavior)
- ✓ Business integration
- ✓ Training & Support
- ✓ Customer Centricity
- ✓ Experimentation

14 subjects
Design & Experiment — Measuring data culture

Surveys

- 7 dimensions
- 7 operationalization areas
- 14 subjects

Dimensional scores
Operationalization scores
Granular subject scores
Design & Experiment — Creating impact

Measuring and control creates the tool to impact a data culture. How to impact?
Provide personalized feedback and learning

- Data Faculty
- Data Governance Framework
- Data Training

- Subject Matter Expertise Training
- Internal Resources
- Running Data Science & Analytics Projects
Allianz In Partnership with DataCamp

The Data Analytics Academy and DataCamp have joined forces on data upskilling across Allianz

Program Launch
April 1st, 2021

1000 Learners
1000 Allianzers around the world using DataCamp

Custom Tracks
3 custom tracks designed for Allianz

Custom Capstone
Customized capstone projects using real world Allianz data

Data Analytics Academy
Powered by Group Data Analysts

Datacamp

Data Analytics Literacy
eLearning program in partnership with DataCamp for everyone on the fundamental skills needed to speak the language of data analytics and data science

Data Insights Analyst
eLearning guided program in partnership with DataCamp for everyone to analyze and visualize their data, and make more data-driven business decisions

Data Scientist
eLearning guided program in partnership with DataCamp for professionals seeking to deepen their data science skills on statistics, data visualization and programming
Design & Experiment — Measuring impact

In this framework, we have data maturity inputs, data maturity outputs, and a learning loop.

- **Inputs**: Survey results
- **Data maturity output**: Learning resources to fuel maturity
- **Feedback Loop**: 
  1. Design & Experiment
  2. Measuring impact
  3. Learning resources to fuel maturity
Design & Experiment — Measuring impact

Supplementing inputs to measure D3M maturity level

feedback loop

Inputs
✓ Survey results
✓ Subscribed to data faculty (yes/no)
✓ Data certified (yes/no)
✓ Seniority
✓ Business domain
✓ Department
✓ Tenure and Function
✓ Secondary role(s)

Data maturity output

Learning resources to fuel maturity
Industrialization and Operationalization — Scaling Impact

- Surveys
- Supplemental data
- Personalized Learning
- D3M Dashboard that provides business impact

Data maturity output
Belgium Sales & Distribution — Decision Making habits

(1) List decisions (2) Order by business impact (3) Measure Data Maturity (4) Change routine maintaining cue and reward
Think Outcome
Stay Hyper-relevant
What questions can I answer for you?

Additional Resources

- Connect with Sudaman on LinkedIn
- WHITE PAPER: Your Organization’s Guide to Data Maturity
- Register for one of our upcoming webinars
- Learn more about DataCamp for Business
- ON-DEMAND: Storytelling for more impactful data science
- ON-DEMAND: How Data Governance Enables Scalable Data Science
Thank you

Adel Nehme
Data Science Evangelist
adel@datacamp.com