Building a Modern Data Strategy

People and Process Considerations

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Agenda

- Key challenges in building a data-driven organization
- Importance of establishing key tenets
- Aligning for innovation
- Driving data literacy to the organization
- Getting started with AWS
- Key takeaway
99% of blue-chip companies are investing in data, 24% have successfully created a data-driven organization.

**Culture is the biggest impediment**

92% of companies cite culture – people, process, organization, and change management - as the biggest impediment.

*New Vantage Partners LLC (2021). Big Data and AI Executive Survey 2021*
Make every customer feel like a celebrity with a unique beauty experience

Challenge
- Business is growing rapidly.
- Need to retain unique culture and reputation.
- Globally diversifying customer base.

1st flywheel turn
- Common understanding across products, inventory, sales, customer attributes and events.
- Insights into customer trends, demand patterns, and customer segments.
- Test and learn on personalised communications.

2nd flywheel turn
- Real time demand sensing and pricing.
- Scale personalization across channels.

Benefits
- Increased sales and profitability, reduced markdowns.
- Enhanced customer shopping experience.

Benefits
- Increased engagement, sales value, and shopping basket volumes.
Themes we hear from customers

Understanding what “great looks like”

Identifying and prioritizing use-cases

Creating sponsorship & business case

Creating a data-driven culture

Gaps in skills and technologies

Data privacy, security, compliance and governance
Establish Key Tenets – Communicate from the Top

These represent the guiding principles for your data strategy

Examples:

Empower the business to solve their specific problems

Only move data when it is absolutely essential for supporting a specific use case.

Data should benefit customers as much as the company.

Decentralized governance to improve agility while still protecting the data.
Tenets for Amazon’s Transformation

• Provide an analytic ecosystem that **scales with the Amazon business**

• To **provide choice** and options in analytic technologies

• To **empower the business** with autonomy and agility in insight

• **Decentralize governance** and avoid bottlenecks across a highly distributed business

• Leverage AWS Technologies and to help AWS improve their services for all AWS Customers
Aligning for Innovation

**Organization**
- Decentralize by default – match to maturity
- Cross functional teams with single focus
- Autonomous and empowered with responsibility

**Funding & value**
- Decentralize where differentiating
- Fidelity matches maturity
- Outcomes over outputs

**Governance**
- Automation of guardrails
- Use tenets and good management
Aligning your Funding Model

Centralized funding
- High control of cost
- High transparency of spend
- Simple governance
- Increased standardisation
- Low autonomy for business innovation
- Low agility

Decentralized funding
- High agility
- High business innovation
- Requires automation for spend transparency
- Requires federated governance to manage standards and security

Hybrid funding
- Manage foundational capabilities centrally
- Decentralised budget for customer facing/ high differentiating capabilities

78% of CIOs agree that decentralized ownership of IT spend is good for the future of their business

IDG Research – What decentralized IT Spending means for the CIO’s role 2020
Aligning your Organizational Model

**Centralized governance and control**
- Highly regulated domain
- Over index on controls
- Single point of accountability
- Data ownership and control
- Manage scarce resources
- Slow decision making and agility
- Can become a bottleneck
- Impacts time to value

**Decentralized within the LoB**
- Self sufficient teams
- Shorter time to value
- Tighter alignment of business/tech
- Embrace change
- Compliance and security risk
- Limited control
- Duplication (by design)

**Modern Data Community**
- Decentralized decision making
- Leverage/govern core capabilities
- Establish standards
- Manage data ecosystems
- Perceived loss of control
- Incentivizing producers to participate
The Modern Data Community

Data-driven organizations enable agility by pushing responsibility to the edges, to the producers and consumers of data.

**Producers**
“Teams that want to share data”
- Domain expertise
- Data ownership and governance
- Data quality
- Metadata Management

**Marketplace**
“Team that runs the marketplace”
- Build security controls
- Build and run the platform
- Simplify on-boarding
- Enterprise datasets
- Training and community

**Consumers**
“Teams that want to use data”
- Execute business priorities
- Business analytics development
- Data Discovery
- Data pipeline development
- Creation of new insights

Level of decentralization depends on maturity of skills, complexity of business, domain knowledge required, and pace of tech change.
Data Literacy

Art and science of using data to understand, interpret and communicate information

Contextualize data
Analyze the process and practices used to collect and interpret the data; provide a perspective on the relevance and applicability, quality and integrity within the context of a particular question or scenario.

Develop a narrative to make it meaningful
Story telling that combines human insight with underlying data to convince, convey or empower individuals.

Design / visualize to simplify understanding
Techniques to simplify the meaning, intent and insights associated with the data to make it easy to understand and use for making critical decisions.
NFL Next Gen Stats gives fans a whole new experience

Challenge
The NFL is America's largest sports organization with 180M fans worldwide. They needed to automate and provide basic game stats in real time (<1 second), and develop new ways of visualizing the action on the field to uncover deeper insights.

Solution
Sensors in the football and player shoulder pads generate real-time data that gets processed in real time to make insights available to 100s of users within NFL, the 32 clubs in the league, and broadcast partners through the NFL Next Gen Stats Portal.

Result
Their dashboard allows users of the portal to quickly derive stats based on a number of different criteria. These statistics were previously generated manually, and delivered to the same audience on a weekly basis. This data is now available real-time. Using embedded dashboards also allows the NFL team to add new metrics and calculations to their application by simply modifying and republishing the dashboard.
Demo
What does it mean to be data driven?

“An organization that harnesses data as an asset, to drive sustained innovation, and create actionable insights to supercharge the customer experience.”

Where is time spent?
Innovating to solve customer priorities, rather than finding and accessing data.

How are decisions made?
Test and measure ideas with data, continuously evaluate with feedback.

How does work get done?
Decentralised decision making.
Small autonomous teams.

How is technology built?
Adapts to business priorities.
Purpose built data stores.

How is data perceived?
Products not platforms.
A collective asset, shared across business lines.

What outcomes are seen?
- 415% five year ROI
- 48% reduced cost
- $4.1m new revenue per year

“+10% data accessibility sees a $65m increase in income for a typical fortune 1000.”
Want to build a data vision and strategy?

- Joint engagements with business and technology stakeholder alignment
- Create an organizational vision for innovation with data to drive business outcomes
- Define the first pilot, learn, and build

Jumpstart the data flywheel

Have a strategy and need help executing it?

- Joint engineering engagements between customers and AWS technical resources
- Create tangible deliverables to accelerate strategic databases, analytics, and ML initiatives
- Leave with an architecture, working prototype, path to production, and deeper knowledge of AWS services

Come with an idea, leave with a solution
“Track cycling is a technology and data driven sport, this has never been exploited to tell the story of the action to fans.”

Francois Ribeiro – Head of Eurosport Events
Focus as much on people and process as you do on technology.
Thank you