THE DIGITAL STORM WILL IMPACT EVERY INDUSTRY

Understand how the digital economy is impacting industries, and the two emerging approaches companies are taking to drive the transformation.
**Digital Storm**

**Digital technologies** will impact every industry and business, and transform the way products and services are delivered and monetized.

These technologies are connecting people, the internet, and the physical world like never before. When everything is connected: cars, homes, farms and patients, business as usual becomes a thing of the past and the transformation of many industries accelerates. To discern some of the emerging patterns, we use the Digital Storm model to describe the impact of digital technologies on various industries.

There are three stages of the digital storm, **but eventually all industries will be in the eye of the hurricane.**

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In the most digitally advanced sectors of the economy, margins have grown 2-3 times faster than average.  

1 – World Economic Forum

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HIGH WINDS:
Asset intensive industries that are more focused on business process innovation and workforce productivity. For them, digital transformation is composed of multiple small innovations that is going to deliver incremental value. For e.g. increase plant and equipment uptime, quality, production adherence, etc. through IoT and predictive capabilities. Significant productivity gains will reshape these industries, and might result in major restructuring of the competitive landscape in years to come.

SEVERE STORM:
At this stage, we find industries like utilities, automotive, and industrial machinery that are looking for ways to leverage IoT and machine learning to either change the way they deliver value or significantly reduce their cost structure. Therefore, some of these companies focus on the business model innovation which will drive growth, whereas others are focusing on transforming the cost structure through automation and process innovation.

HURRICANE:
Industries that are primarily consumer driven such as banking, retail, telecom, media, and entertainment are already in the eye of the storm. Improving value position, convenience and overall customer experience is key to success. Thus, many companies in these industries focus on business model innovation.

We analyzed approximately 500 SAP customers to determine the focus of their digital transformation - **reimagine business model, reimagine process, and reimagine work**. As shown below, the results are consistent with the digital storm model. Companies which are in the eye of the storm/hurricane are more focused on business model innovation. Others who are on the opposite end of spectrum are more focused on process innovations and employee experience.
Since, industries are at different stages of digital disruption thus their approach to digital transformation differs. We observe two distinct approaches emerging, and two types of leadership models driving these digital transformation approaches.

**TOP DOWN APPROACH**
When digital transformation involves business model change, led by a top executive reporting directly to the CEO or the board.

**BOTTOM UP APPROACH**
When the digital transformation includes many small to mid-size initiatives across the organization, led by an executive reporting into CIO or CTO.

A successful digital transformation requires the right approach—and the right leadership to drive it. What is right for a company depends on the organizational maturity and the goal of the digital transformation. Some companies are looking to set up digital innovation outposts; others are planning full-scale transformations—but all projects call for commitment and a clear strategy.
Typically led by the strategic innovators:

- Talented executives who can lead big business units and potential successors to the CEO.
- Chief Digital Officer (CDO) and Chief Innovation Officer (CInO) who report directly to the CEO and the board and are directly responsible for the transformation objectives.
- Responsibilities and influence is not limited to innovation through technology, but also includes business strategy decisions like new acquisitions, new products, and service introductions.
- When engaging with technology companies, they are not interested in specific products but instead look for long-term partnerships.

A large European home appliance manufacturer

Is transforming its business by building smart products and connecting them on a single platform to deliver a connected lifestyle experience. By combining appliance, platform, and customer data, they can offer new services and understand customers’ needs better and design more valuable products. Through digitization they can also build an appliance-as-service business model, where customers pay per usage of the appliances.

TOP DOWN APPROACH

- When a business model change is required, digital transformation is mandated by the board or the CEO.
- Changes are required across the value chain, value proposition, and revenue model.
- The long-term vision is well-defined, and the projects funded are aligned to this vision.
- All options are considered to drive the change, including M&A and forging strategic partnerships.
- It is a multi-year journey, with multiple wins along the way.

This approach is popular in consumer-facing industries like retail, insurance, banking, media, and automotive OEM.
**BOTTOM UP APPROACH**

- The focus is on specific objectives, like step change in productivity or incremental process innovation.
- Business units and LoBs nominate thousands of initiatives, but only 10-15 projects with clear ROI are funded.
- Rolling portfolio of projects is in place to drive the momentum.
- The emphasis is on quick wins, like predictive maintenance, automate repetitive tasks, making the operating environment safer using modern technology, and so on.

This approach is popular with the asset-intensive industries like mining, chemicals, and oil and gas, where the CIO or CTO is leading the digital transformation.

**Typically led by the digital experts:**

- Leaders of digital CoE/accelerator units, or CDOs who report to the COO/CIO/CTO.
- Focused on multiple initiatives that drive a step change in productivity, employee engagement, and improve customer experience.
- Work closely with LoBs or business units to funnel thousands of ideas into the running portfolio of digital projects.
- Most projects are funded through the IT or divisional budget, which puts the ownership of execution on the CIO or COO.

**A large chemical company**

Is leveraging digital technologies for several projects to drive productivity and reduce costs. They are using machine learning to eliminate voluminous and repetitive tasks in their back-office operations. For another project they are leveraging predictive technology to improve maintenance effectiveness. They are also adopting a cloud network solution to better collaborate with equipment manufacturers and other service providers.
Both approaches have their own opportunities and challenges, but success ultimately comes down to how well digital initiatives are planned, prioritized, and executed. Companies which intend to organically transform company's culture are applying both approaches simultaneously i.e. strong digital leadership at the top supporting digital champions embedded in various functions.

We see more and more companies nominating digital leaders (see below). Some are appointing a Chief Digital Officer (CDO) or Chief Innovation Officer (CInO), while others still see the CIO or CTO leading the transformation.

19% of 2,500 largest public companies have an executive in a CDO or equivalent role¹

60% of Organizations see CIO as the leader of digital transformation²

30% of employees are unaware which leader in their organization is responsible for digital functions³

The common link among successful companies from both sides of the spectrum: The focus is on customer and business value while digital technology is an enabler.

¹ – PwC, 2016 CDO study
² & ³ – McKinsey, How digital is changing leadership roles and responsibilities