Università di Roma Tor Vergata

Laurea / B.A. in Global Governance

AA 2018/2019

Business Strategy

Digital transformation and its impact on strategy

Summary

- Digital Transformation
- Dimensions of digital transformation
- Five Domains of Strategy that Digital is Changing
  - Customers
  - Competition
  - Data
  - Innovation
  - Value

Drivers of Digital Transformation

Social Media

Social channels are being leveraged by businesses to interact with their customers.

Mobility

Mobility is shifting the focus of application development away from the traditional "desktop- based" approach to a "mobile-first" one.

Analytics

Analytics is enabling enterprises to explore large volumes of data to gain insights and drive strategic decisions.

IoE

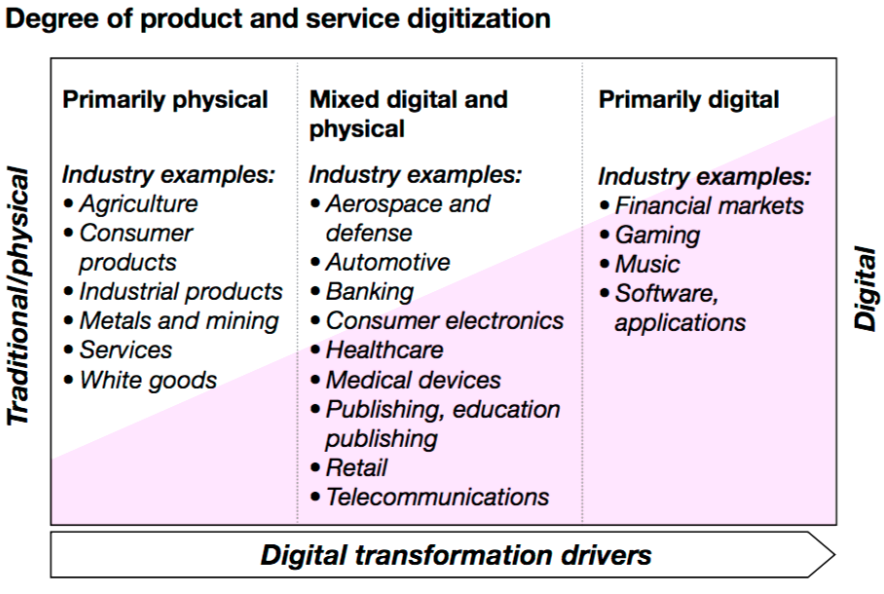
Internet of Everything (IoE) is opening significant opportunities by connecting everything to internet.

Cloud

Cloud computing is reshaping the way software and services are sold and delivered.

Source: EY. Imagining the Digital future How digital themes are transforming companies across industries February 2015

Digitalization of Product and Service



Source: IBM Institute for Business Value analysis.

Internet and competitive strategy

Porter defines industry attractiveness as "long term return on invested capital"

… depending on the level of the competitive forces playing in the industry.

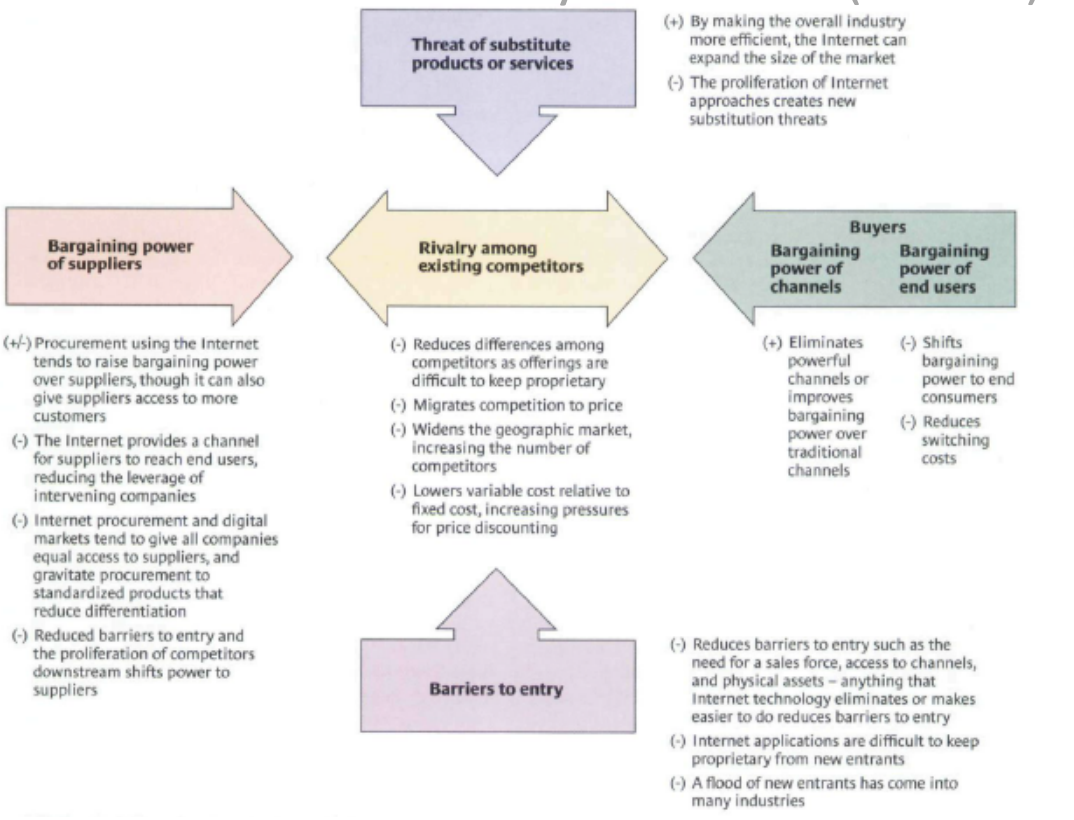
Internet is changing the scenario in many industries as it can be used to:

Operate at a lower cost, increasing operational effectiveness

Command a premium price, achieving a unique strategic positioning

At a first step this analysis can be done according to a traditional approach but the increase of the digitalization call for a ridefinition of the business models

Internet and industry structure (Porter)



Dimensions of digital transformation

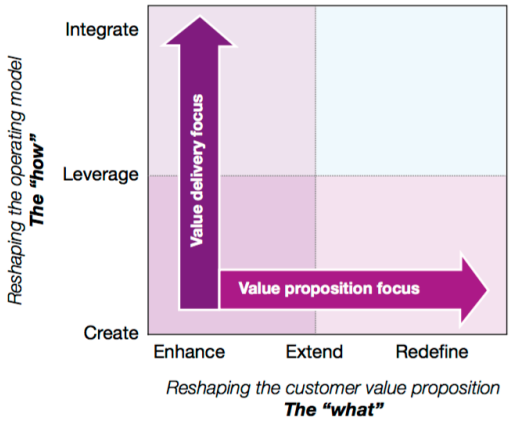
What do businesses need to do to get ahead of the widespread forces for change in our digital age?

a. Reconfiguring the customer value proposition (what is being offered)

b. Reshaping the operating model

(how it is delivered).

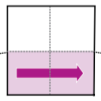
Elements of digital transformation



Source: IBM Institute for Business Value analysis.

Dimensions of digital transformation

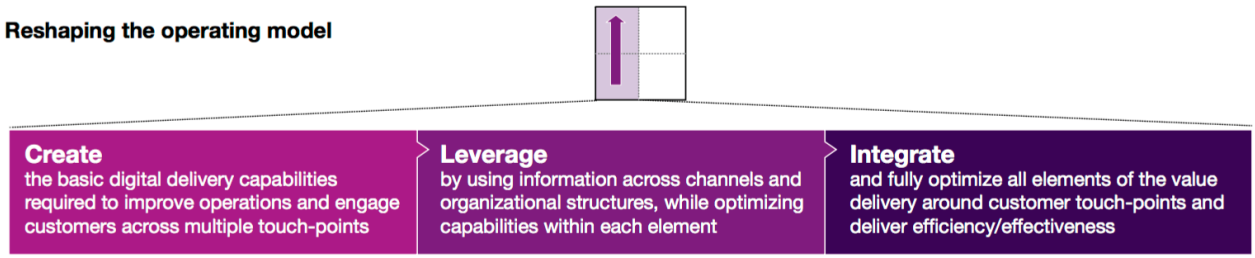
Reshaping the customer value proposition



Enhance	Extend	Redefine
or augment physical products or services with digital content, information, insight and engagement	the physical or traditional products and services through digital content, creating new revenue streams	the value delivered to customers, replace physical with digital or build fully integrated digital/physical value and revenue
Key strategic moves • Augment the customer experience with digital content • Differentiate with digital community • Enhance customer experience across multiple touch-points	**Key strategic moves** • Add new revenue streams to traditional or mostly physical offerings • Create new revenue streams from stretching the brand • Integrate across touch-points to increase sales and transactions	**Key strategic moves** • Design new revenue models in which digital elements replaces physical ones • Recombine or reassemble "information elements" to create new or additional value • Transform the customer experience

Source: IBM Institute for Business Value analysis.

Dimensions of digital transformation



Source: IBM Institute for Business Value analysis.

The Enterprise IT system is a strategic leverage for the "How" of the digital transformation, as long as there are these conditions:

- deploy a consistent technology platform
- keep on innovating and coming up with better ways of working
- use the IT platform to propagate these business innovations widely and reliably.

Categories of IT applications

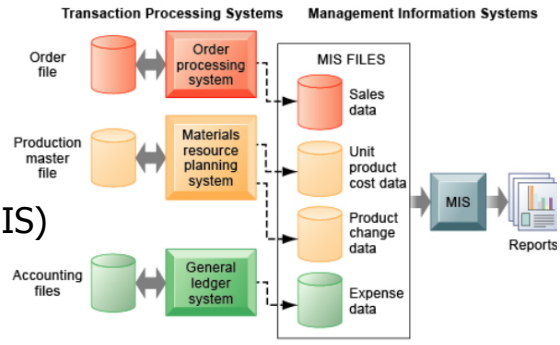
IT applications can be classified based on their impact on activities and processes

IT Category	Definition	Characteristics	Examples
Function IT	IT that assists with the execution of discrete tasks	• Can be adopted without complements • Impact increases when complements are in place	Simulators, spreadsheets, computer-aided design, and statistical software
Network IT	IT that facilitates interactions without specifying their parameters	• Doesn't impose complements but lets them emerge over time • Doesn't specify tasks or sequences • Accepts data in many formats • Use is optional	E-mail, instant messaging, wikis, blogs, and mashups
Enterprise IT	IT that specifies business processes	• Imposes complements throughout the organization • Defines tasks and sequences • Mandates data formats • Use is mandatory	Software for enterprise resource planning, customer resource management, and supply chain management

Source: McAfee, Mastering the three worlds of IT

Types of Information Systems

- **Transaction Processing System** (TPS)
  Goal: increasing efficiency/productivity;
  Data source: internal;
  Data: very detailed.



- **Management Information System** (MIS)
  Goal: increasing efficiency/effectiveness;
  Data source: mainly internal;
  Data: synthesis, with possible drilling-in.

- **Executive Support System** (ESS)
  Goal: improve effectiveness;
  Data source: mainly external;
  Data: very broad (potentially detailed on key topics).

ERP - Definition

ERP is an integrated Enterprise IT system.
It has has grown from MRP (Material Requirements Planning) driven by a need for stronger integration between the functional enterprise silos that dominated firms (legacy IT systems).

ERP (enterprise resource planning):

"framework for organizing, defining, and standardizing the business processes necessary to effectively plan and control an organization so the organization can use its internal knowledge to seek external advantage".

Source: The Eleventh Edition of the APICS Dictionary (Blackstone and Cox, 2005)

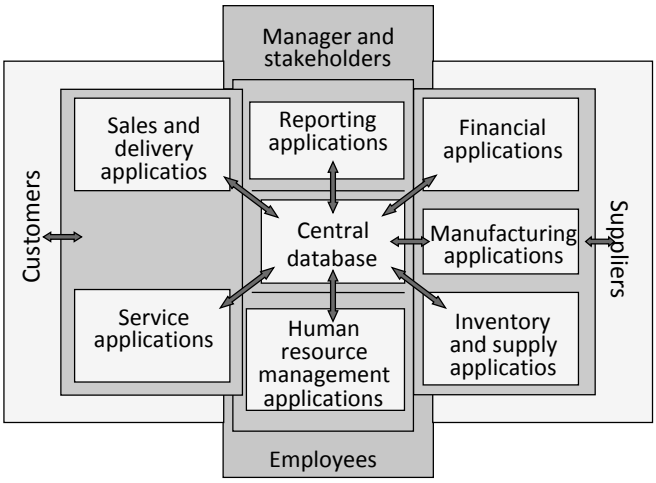
With the rise of e-Business and the need to integrate multiple sources of information within the enterprise, ERP software has emerged as the standard reference for enterprise IT systems as well as the required building block for digital transformation.

ERP System structure

ERP provides the backbone for an enterprise-wide information system.

At the core of this ES is a **central database** which draws data from and feeds data into **modular applications** that operate on a common computing platform

ERP is based on a **common business model** standardizing business processes and data definitions into a unified IT environment.

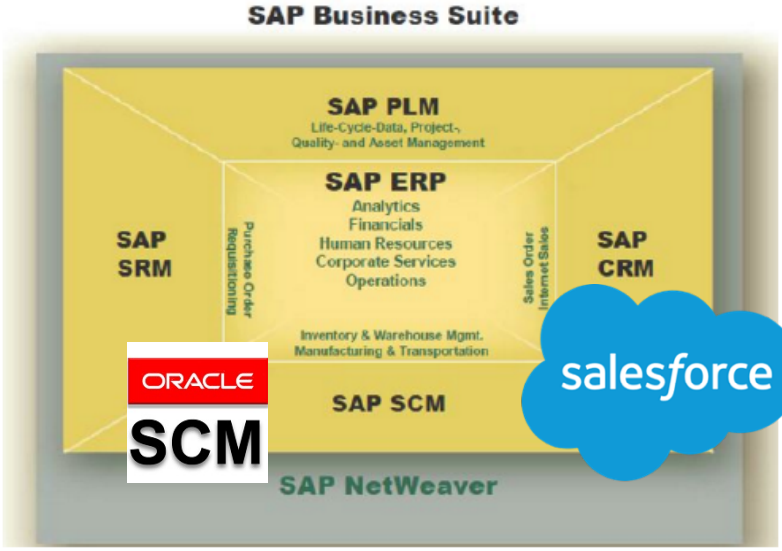


Source: Davenport, Putting the Enterprise into the Enterprise System

ERP system as an extended platform

ERP systems can be used as an extended platform to integrate:

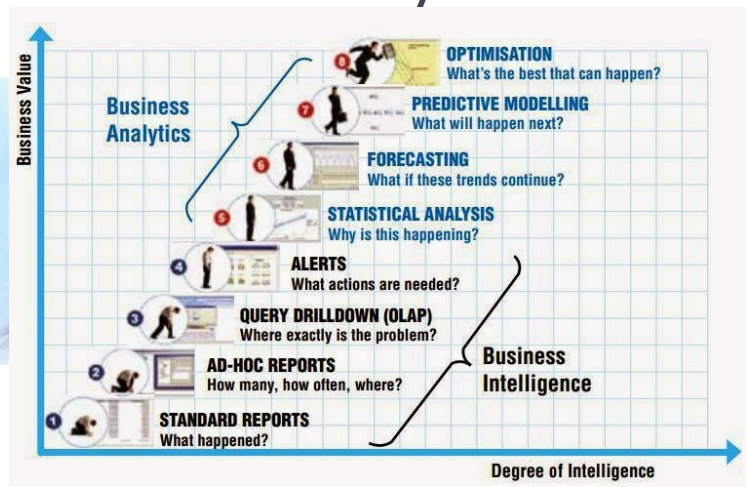
1. Downstream: **CRM**
   Customer Relationship Management
2. Upstream: **SRM**
   Supplier Relationship Management
3. Development: **PLM**
   Product Life-cycle Management
4. Operations: **SCM**
   Supply Chain Management

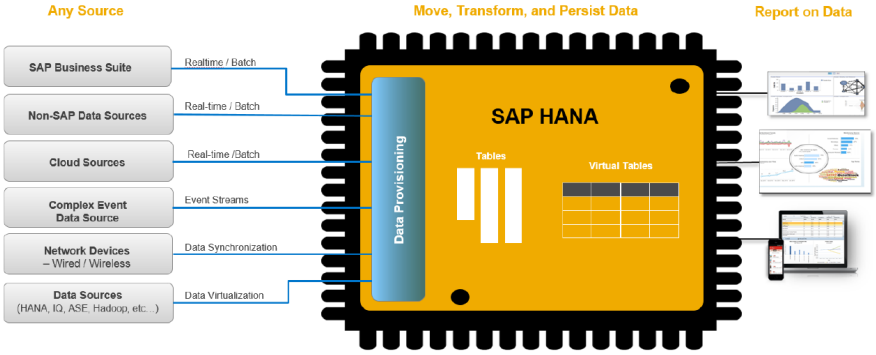


ERP can also be the platform for

- Business Analytics
- Process Mining
- Enterprise Social Media
- interface with IoT (Internet of Things)

… towards business analytics

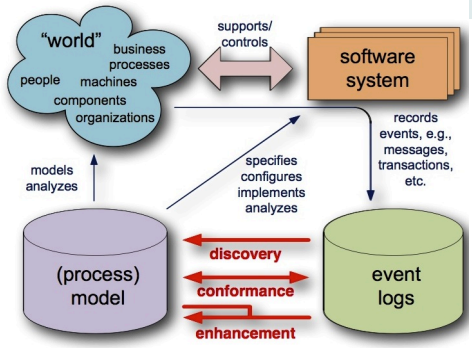


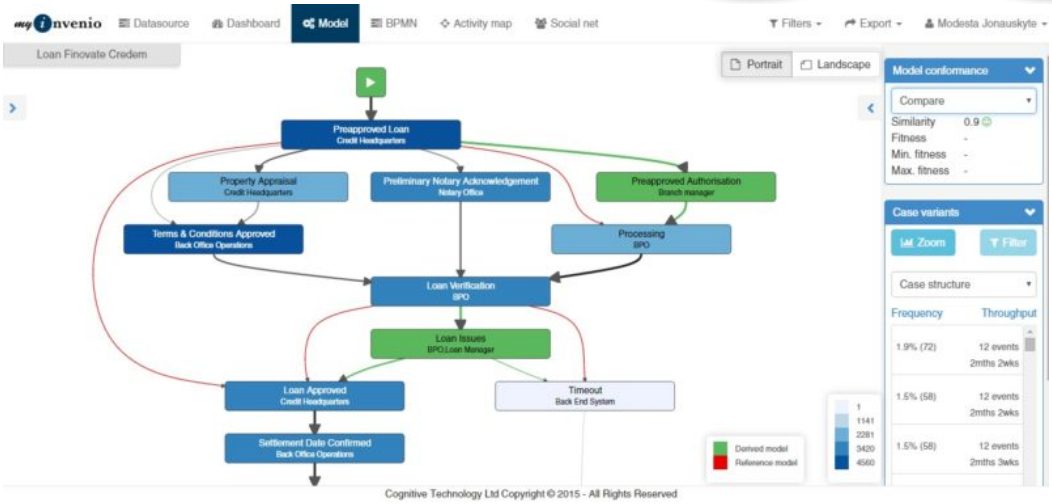


… towards process mining

myinvenio

QPR
Dare to improve.



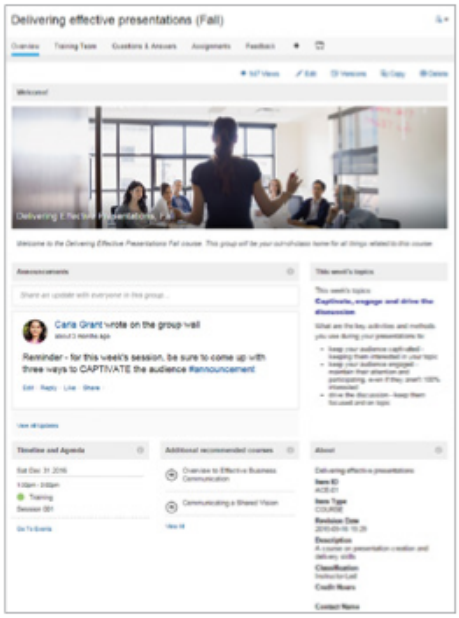


… towards social media features

SAP Jam Collaboration for HR

Revolutionize work, simplify your business

Social collaboration streamlines HR business processes across organization – bringing people together to drive companywide

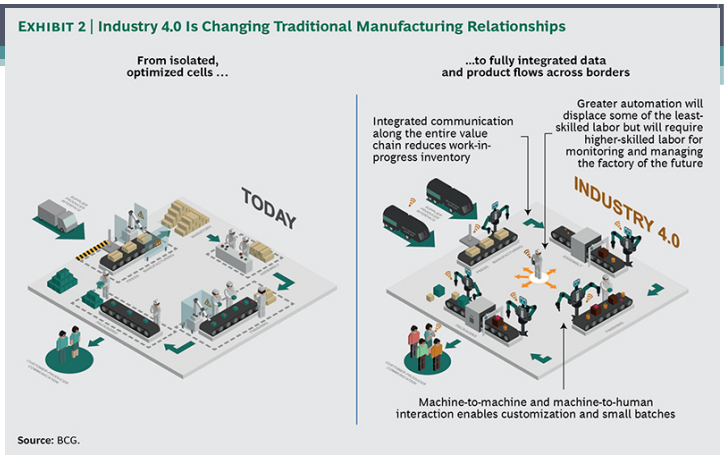


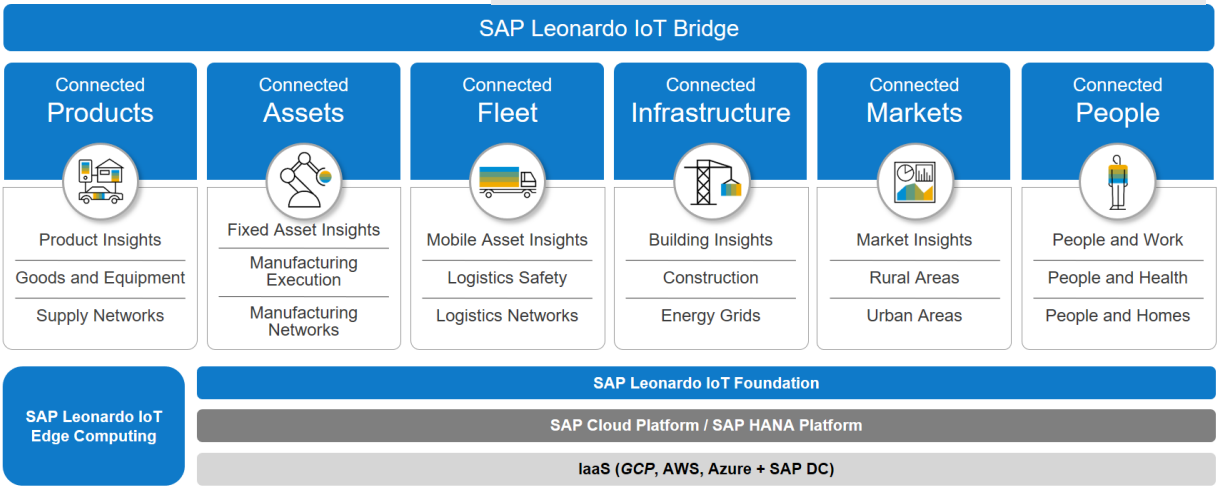
Da: **SAP Jam** noreply@sapjam.com
Oggetto: [SAP Jam] Daily alert for November 22, 2017
Data: 22 novembre 2017 09:32
A: Corrado Cerruti corrado.cerruti@uniroma2.it

[redacted]

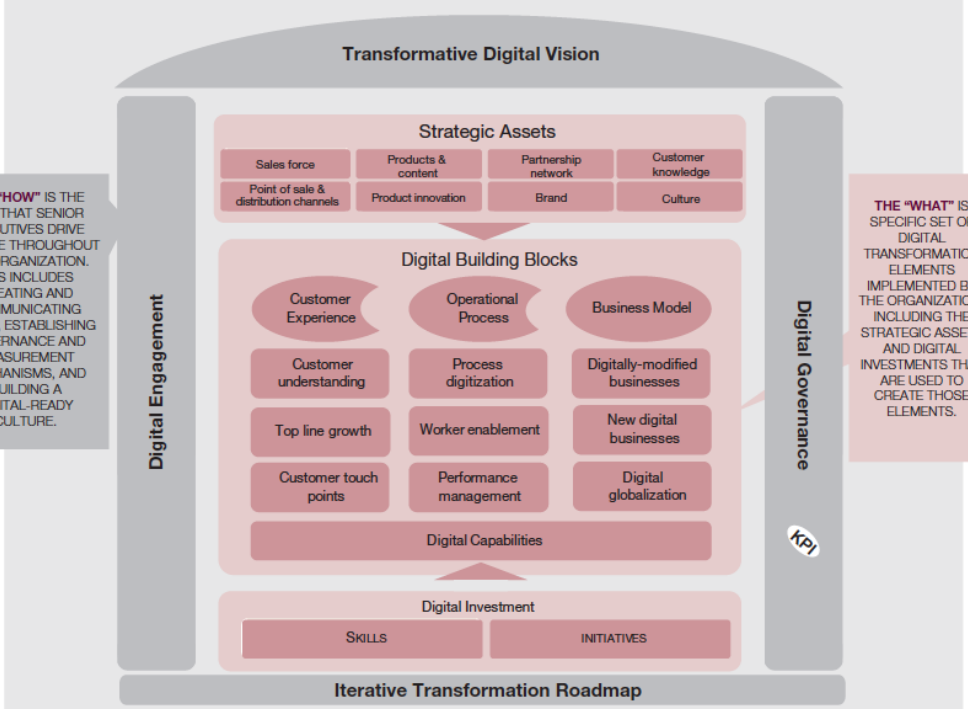
Here are the SAP Jam alerts you requested.

… towards Industry 4.0 IoT

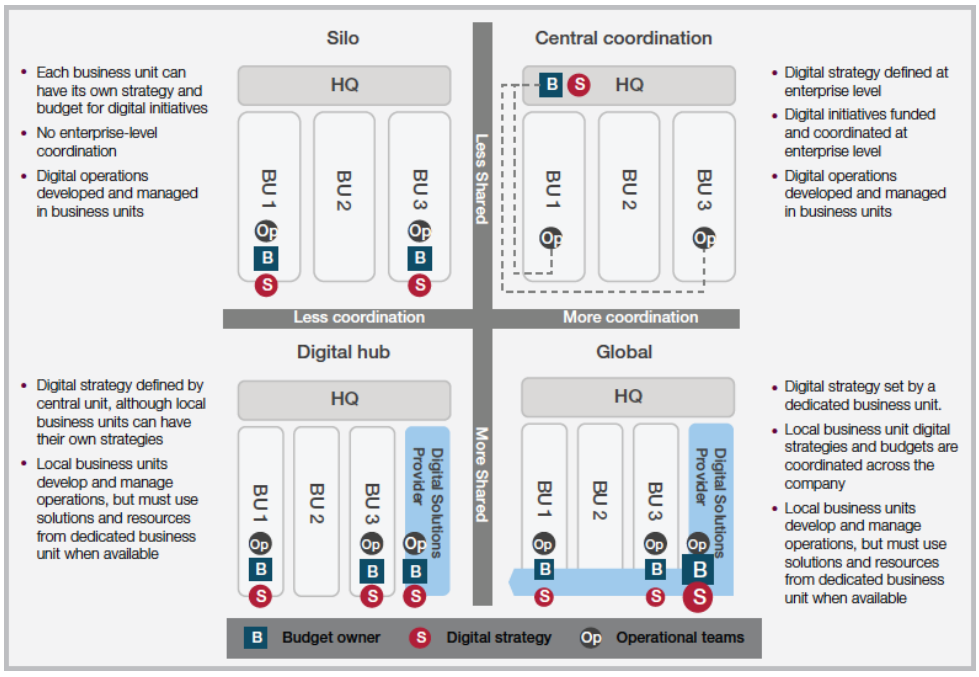




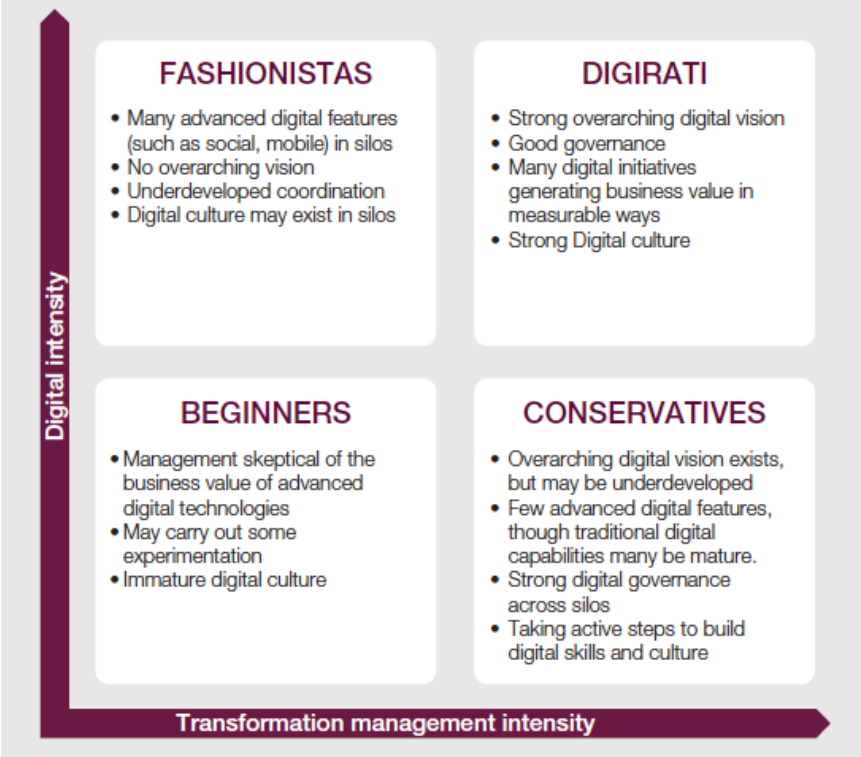
Dimensions of digital transformation



Coordination models for digital transformation

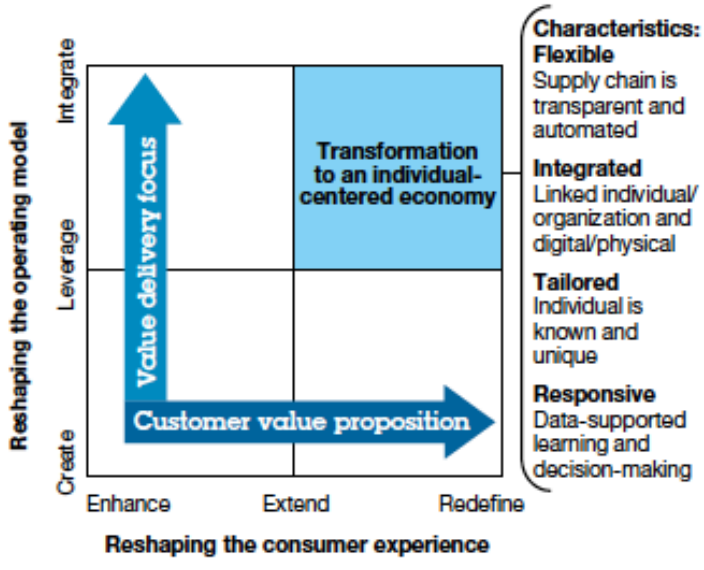


Approaches to digital transformation



The essence of digital transformation

Digital transformation framework



Source: IBM Institute for Business Value analysis; "Digital transformation: Creating new business models where digital meets physical." IBM Institute for Business Value.

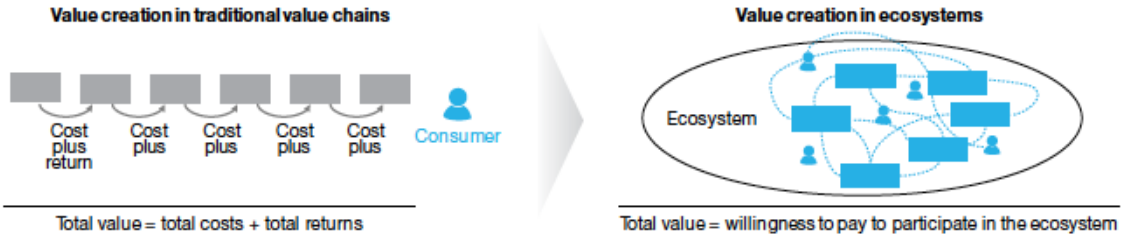
The value chain/industry changes

Value chains will fragment

New technologies will make value chains more transparent and easier to decompose (see Figure 4). In the past, value chain disruptions often involved replacing whole value chains or big chunks of value chains, such as replacing traditional banking processes with Internet-based, virtual banking. Next generation value chain disruption will involve contesting more specific elements or functions within value chains.

Industries will converge

As specific functions in value chains are contested, new competitors will emerge. Functional specialists from one industry will begin competing in specific value chain functions of other industries. This cannibalization across industries will begin to drive industry convergence (see Figure 5).



Digital transformation trends

Digitization maturity model

	Organization-centered	Individual-centered	Everyone-to-everyone (E2E)
Connectivity	**Asymmetric** Information asymmetry restricts coordination	**Flexible** Supply chain is transparent and automated	**Orchestrated** The ecosystem is collaborative and seamless
Interactivity	**Incidental** Individual offered a one-time transaction	**Integrated** Linked individual/organization and digital/physical	**Symbiotic** Everyone and everything is mutually interdependent
Awareness	**Segmented** Individual is unknown and assumed	**Tailored** Individual is known and unique	**Contextual** Experience is calibrated and relevant to actions and needs
Intelligence	**Transactional** Passive learning through direct relationship	**Responsive** Data-supported learning and decision-making	**Cognitive** Self-supported learning and predictive capabilities

Source: IBM Institute for Business Value analysis.