THE DISRUPTIVE POTENTIALS AND RISKS OF DIGITALISATION

*IT in Practice* shows that enterprises are struggling to strategically come to terms with digitalisation: How is this impacting us? Which digital potentials and risks does our business model entail? What actions should we take to exploit or mitigate them? Companies must identify, assess and actively manage the potentials and risks.

‘Disruption’, a buzzword that has emerged in recent years, is popularly used to describe the situation in which an established enterprise rapidly loses significant market share to up-and-coming industry players that have found a way to deliver more value for customers through better or more targeted products and services.

*IT in Practice* clearly shows that the amount of attention a CEO pays to digital technologies impacts the enterprise. Ten per cent of CEOs fear that digitalisation in their industries and markets will cost their companies up to half of their revenue within just three years. CEOs are intensifying their strategic efforts and rapidly redirecting them at analysis and action in the digitalisation sphere.

The potential digital impacts – positive as well as negative – must be strategically mapped at the executive level to provide a basis for framing the most productive type of discussions throughout an organisation’s management. Some impacts are generic to all or most businesses while others are industry-specific. Thus, an approach combining both dimensions may most expediently identify the elements and action best suited to the enterprise’s portfolio of projects and development activities. Also, rather than focusing on new technological breakthroughs, companies should analyse digitalisation in the light of their own core business processes and structures. This is critical if companies are to zero in on developments that really matter instead of concentrating on whatever is being hyped at a given time. Consequently, identifying areas where digitalisation has potential to

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**GENERIC DRIVERS OF DIGITAL IMPACT PLUS DRIVERS SPECIFIC TO THE MANUFACTURING INDUSTRY**

Digital impact assessment should contain generic as well as industry-specific parameters

**GENERIC AREAS**

1. Customer segments  
   *i.e.* digitally reachable segments
2. Customer relations and channels  
   *i.e.* digital customer experience management
3. Business networks  
   *i.e.* digital ecosystem partners
4. Revenue streams  
   *i.e.* invoicable digital value adds
5. Talent attraction  
   *i.e.* digital presence
6. Communication  
   *i.e.* social media and two-way

**MANUFACTURING INDUSTRY AREAS**

1. Utilisation of production assets  
   *i.e.* predictive maintenance
2. Material and raw goods consumption  
   *i.e.* smart metering
3. Product quality  
   *i.e.* smart process control
4. Workforce utilisation  
   *i.e.* knowledge work automisation
5. Logistics and warehouse  
   *i.e.* smart warehousing
6. Aftermarket potentials  
   *i.e.* augmented self-service
Generic areas of potential impact include business model fundamentals, i.e., the components that ensure organisations create and deliver business value for – and often with - their customers. These include customer segments, customer relations and channels, business partnerships, business networks and revenue streams. To these should be added enterprise parameters like talent attraction/retention and enterprise communication practices. Other areas of impact are likely to be more industry-specific, and will therefore vary depending on context. For a manufacturing enterprise, such factors might relate to the utilisation of costly production assets, material and raw material consumption, product quality, workforce utilisation and aftermarket potentials.

Enterprises should use simple models like the one proposed to structure and frame strategic and tactical discussions about priorities, resource allocation and investments, in this way ensuring that all impact areas are addressed with an appropriate, targeted mix of initiatives and projects. Investing more than they already do does not, however, necessarily make companies better off. Instead, they should focus on making management at all levels more aware of the different areas that potentially disruptive forces can impact – and on acting in accordance with their assessments. The proposed approach has strengths in areas which decision-makers often struggle with today. Traditional decision support tools, such as making business cases, can be inadequate for quantifying digital potentials and risks, because enterprises lack significant historical experience with new technology components and their impact.

Without quantification, how can enterprises decide how to allocate investment funding? Inspiration can be drawn from elsewhere in the business landscape, i.e., the investment scene around business start-ups, where a high level of uncertainty and unpredictability are intrinsic to the game. When it comes to start-ups, wise investors will initially put up only a fraction of the funding needed to make a start-up a commercial success. Only if the start-up continues to develop favourably will more funding be channeled into the venture. Enterprises can employ a similar approach internally to allow creative or less concrete ideas to mature. The result should be a digital project portfolio containing a number of highly experimental and explorative items. As with business start-ups, a large percentage of these are unlikely to generate viable business results, but the few that do might make all the difference.

By using this approach, which does not impose rigorous business case regimes on novel and ‘disruptive’ ideas, companies can avoid routinely killing off potential innovations.

**ACTION ITEMS**

- Apply an industry-specific and structured method of analysis to digital impacts on the enterprise’s business model and market
- Score, rank and quantify digital impacts based on their value and risk potentials
- Carefully consider the investment funding model and business case requirements for projects and efforts targeting digital impacts
- Reserve a small part of the digital project portfolio for highly speculative investments with a high risk-to-reward ratio. Kill off ventures that fail to show rapid progress and make room for new ones