

How to Effectively Plan for Digital Transformation

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Article abstract

Enterprise digital transformation is the compelling, emerging strategic imperative of our time. The 4th Industrial Revolution – the confluence of ubiquitous digital access, low-cost sensing enabled by the Internet of Things, advances in artificial intelligence and machine learning, robotic process automation, and more – is driving a revolution in business information, intelligence, and models. While these trends offer an excellent opportunity for companies, traditional strategic planning, and corporate responses are proving slow to adapt. This article explores the strategic imperatives surrounding digital transformation, and the common failure modes of existing strategic planning techniques and offers guidance for senior management to maximize their planning processes to harness the opportunities inherent in digital transformation.



HOW TO EFFECTIVELY PLAN FOR DIGITAL TRANSFORMATION

BY WILLIAM DONALDSON



Enterprise digital transformation is the compelling, emerging strategic imperative of our time. The 4th Industrial Revolution – the confluence of ubiquitous digital access, low-cost sensing enabled by the Internet of Things, advances in artificial intelligence and machine learning, robotic process automation, and more – is driving a revolution in business information, intelligence, and models (Schwab, 2017). While these trends offer an excellent opportunity for companies, traditional strategic planning, and corporate responses are proving slow to adapt. This article explores the strategic imperatives surrounding digital transformation, and the common failure modes of existing strategic planning techniques and offers guidance for senior management to maximize their planning processes to harness the opportunities inherent in digital transformation.

STRATEGIC PLANNING CHALLENGES AND FAILURE MODES AROUND DIGITAL TRANSFORMATION

Achieved through the development and adoption of digitally driven and enabled processes and systems, digital transformation (DT) offers companies an opportunity to completely rethink their operations, platforms, and processes for greater customer awareness, intimacy, responsiveness, capture, and fulfillment and to drive enterprise efficiencies that enhance

operating total shareholder returns (OTSR). In short, developing a “digital twin,” the instantiated digital journey for customers, products, services, and employees, that enables all corporate activities (Pawlikowski, 2020). The reader will imply from the above that the digital twin developed through digital transformation is indifferent to divisions, departmental boundaries, and siloes, and yet this is precisely how most organizations drive traditional strategic planning. Our work in this area reveals four major failure modes in strategic planning methodologies that make digital transformation difficult to achieve.

Reductionist Planning

Corporate planning departments push down high-level corporate goals and charge the divisions and departments with developing plans in response. Dutifully, these divisions and departments develop their appropriate responses. However, these efforts are almost always reductionist in nature, not systemic and holistic, driven by what Herbert Simon called “bounded rationality.” This is the concept that decision-makers will act in the best interest of their compartmentalized, bounded viewpoint to optimize their area of interest, often at the expense of the whole system (Simon, 1972). Driven by a cascading, reductionist approach, these departments and divisions develop localized strategies with attendant IT platforms and processes.

“**THERE IS NO ALTERNATIVE TO DIGITAL TRANSFORMATION. VISIONARY COMPANIES WILL CARVE OUT NEW STRATEGIC OPTIONS FOR THEMSELVES – THOSE THAT DON'T ADAPT WILL FAIL.**

– JEFF BEZOS

Corporate incentives, instantiated at the division and departmental level and driven by DuPont identity metrics such as return on sales, return on assets, asset utilization, and free cash flow just enhance this fractured approach and entrenched cultural behavior.

Siloed Enterprise Architecture Framework Utilization

Similar to the above, most senior management teams cast the enterprise architecture decisions down to the IT departments and start the planning process at the divisional/department level. Planning in such a fashion assures local optimization which becomes manifest in localized technology platforms and processes. Local divisions and departments then become operationally and culturally entangled in the localized solutions and stubbornly resistant to changes to the same or to ceding their systems and processes for true enterprise compatibility (Donaldson, 2017).

production reality that they don't know just how broken some of their business processes are."

Low Technology Readiness Levels

The state of enterprise technology readiness levels (TRLs) dramatically constrains digital transformation choices. We found most organizations vary wildly in their TRL levels and the attendant ability to adopt advanced DT initiatives. Competing, installed software platforms that conflict, are deeply entrenched in the divisional structures, and changing these localized systems proves expensive and culturally stressful (Harbert, 2021). Consequently, senior management is unwilling to change its practices. Yet, true digital transformation requires precisely this.

The following is an example of what happens when corporate leaders fail to approach planning in a truly holistic, systemic enterprise fashion. The senior management team of a

treated as a separate, non-integrated plan. The result was four individual digital transformation plans, utilizing different digital products, platforms, and processes which completely missed the intent and benefits of DT. The reader might ask, "what about the fifth SBU?" That particular SBU determined that the operational challenges they were facing were so demanding that they would not participate in the transformation initiative at all for fear that they would not deliver on their "numbers." Since all of the strategic decisions and incentives were instantiated at the SBU level, and the resulting OTSR results aggregated at the corporate level, the corporation completely missed the opportunity for digital transformation. Not only was the opportunity missed, but the organization is still plagued by recriminations, turf, and cultural wars.

Early reports from the field confirm the situation above is not unique. An MIT study found that while 90% of CEOs believe the digital economy will impact their industry, less than 15% are executing any digital strategy, be it well or poorly carried out. A study by Siemens, a provider of DT technology, found that technology readiness levels were significantly below where senior management believed they were and were insufficient for a full embrace of DT without significant training and investment. Beyond the technological challenges are the cultural and structural challenges that make overcoming the four failure modes nearly impossible. Of the 50 entities in the study, the Siemens report found that 78% of the respondents cited cultural issues as the primary challenges while 54% cited workforce issues as the secondary challenge to successful implementation of digital transformation. Simeon Preston of Managing Director & Group Chief Operating Officer at FWD Insurance said "the biggest part of our digital transformation is changing the way we think."

GUIDELINES FOR MANAGEMENT TO MAXIMIZE STRATEGIC PLANNING FOR DIGITAL TRANSFORMATION

Our research and consulting with industry leaders indicate three guiding principles that drive effective planning for digital transformation. First, management must view the

DIGITAL TRANSFORMATION IS A COMPELLING STRATEGIC IMPERATIVE. TO TAKE FULL ADVANTAGE OF THE EXTRAORDINARY DEVELOPMENTS BEING PROFFERED BY THE FOURTH INDUSTRIAL REVOLUTION IN THE FORM OF DIGITAL TRANSFORMATION, THE STRATEGIC PLANNING PROCESSES MUST BE ADAPTED, OR THE TRANSFORMATION WILL BECOME A STRATEGIC THREAT.

Non-Systemic Strategy Deployment

The above failure modes are further compounded by hierarchical and departmentalized strategy deployment methodologies, leading to inconsistent platforms, processes and outcomes (Donaldson, 2017). W. Edwards Deming found that upwards of 94% of all mistakes, misalignments, faults, flaws, defects, etc. were systemic. Managers and employees want to do the right things but are led by the system(s) to incorrect conclusions, inefficient processes and general corporate friction (Deming, 1994). Hammer and Champy found these results to be endemic (Hammer & Champy, 1993): "It isn't uncommon for managers at senior levels of large organizations to be so out of touch with customer and

large, publicly traded, multi-national company became enamored of the idea of digital transformation and announced to the analyst community their intention of driving such a change in their organization in record time. The corporation was comprised of five strategic business units (SBUs), all offering services to the same customer base. In a failure to consider ways to overcome the four fatal flaws outlined above, the global strategic initiative was transmitted to each SBU, with each unit challenged to develop a comprehensive strategic plan to accomplish the corporate goal. Predictably, but not surprisingly, such a reductionist approach proved disastrous. Four of the SBUs dutifully planned for their digital transformations, however, each was



enterprise as a complex, adaptive, socio-technical system embedded in a context. They must be relentlessly externally focused, exploring, mapping, sensing, and anticipating customer journeys and interactions down to color preferences and iconography choices. User experience and user interface become key drivers of resulting technology choices. Second, companies must embrace the notion of boundarilessness, a term popularized by General Electric decades ago. Systems, and customers of them, recognize no internal boundaries, they are integrated wholes. The new boundarilessness recognizes that the digital twin must not be encumbered by internal divisions, departments, and other artificial boundaries that are of no consequence or concern to the customer. Finally, customer focus and boundarilessness imply, in fact, demand, end-to-end digital integration not merely technical overlays on existing structures.

These three guiding principles necessitate the following critical changes to existing strategic planning methodologies needed for effective digital transformation.

Systems Thinking

Senior management must view the enterprise as a complex adaptive system embedded in an outside context that drives the required/ desired response. Management can no longer view the enterprise through a reductionist lens leading to siloed, divisional optimization. As important as that reductionist step is to deploying strategy and driving results, it cannot be initiated too soon. The strategy deployment steps must follow holistic, systemic planning. This will require re-imagining siloed, non-systemic strategic planning processes.

Outside-in Thinking

Most organizations deploy inside-out thinking where the focus is on the processes and systems to solve an internal issue. Outside-in focuses enterprise planning on outside dynamics and uses “outside eyes” to view the existing enterprise as customers and users might, not as internal constituents want the enterprise to be. Many management teams turn strategic planning

processes from an outward and forward view to an inward and downward view far too soon in the process, causing a loss of clarity and holism needed for true enterprise digital transformation.

Enterprise Architecture

Similarly, many management teams employ enterprise architecture concepts with an inward and downward focus instead of adopting rigorous enterprise architecture planning methodologies that span the entire enterprise, not just divisional structures. Proper adoption of enterprise architecture would ensure the success of the organizational digital transformation and provide a framework for all of the transformation’s building blocks (Hadaya and Gagnon, 2017, 2021).

SBU and Divisional Performance

Management must revisit corporate performance under a strict DuPont identity, total shareholder return model down through the enterprise, making sure that OTSR metrics are aligned with and not counter to digital transformation. Aggregation must occur at the enterprise level, not the SBU or divisional level.

Incentives

Finally, management must critically review and rethink incentives in light of a systemic, holistic approach to drive appropriate corporate behavior. Incentives that are personal or local will drive local optimization and run counter to the enterprise nature of digital transformation.

CONCLUSION

Digital transformation is a compelling strategic imperative. To take full advantage of the extraordinary developments being proffered by the fourth industrial revolution in the form of digital transformation, the strategic planning processes must be adapted, or the transformation will become a strategic threat. The C-Suite must take the lead in championing this transformation because it alone has the vision, breadth and power to mediate the inevitable tradeoffs between SBUs, divisions, departments, and initiatives that will ensue. While the heart of digital transformation is technological in nature, to properly harness the potential, management

must embrace different strategic planning methodologies driven by systems thinking and a holistic approach to the enterprise.

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