Linearity & non-linearity in automation

The paradoxical twins in the “Digital” age
There are very few business discussions that culminate today without a mention of the potential that “Digital” & “Automation” ring in, growth being the underlying intent. A recent internal research by Wipro on the growth potential of technologies such as Internet of Things (IoT), Robotic Process Automation (RPA), Artificial Intelligence (AI), Conversational Commerce (Chatbots) & Blockchain predicts an average CAGR of 33-40% from 2018-2024. While the GDP of matured economies continue to grow at growth rates ranging from 2-5% and that of maturing economies ranging from 5-15%, technology led average growth rates of >30% are just goldmines to be chased and hence markets today are a testimony of the resultant sphere of activities in this digital space.

In the organizational context, with huge growth potential comes great responsibilities, the immediate challenge being to adopt, ensure scale based external growth coupled with addressing internal complexities that hinder growth. This demands organizations to aim for scalability & agility like never before.

Coherence indicates that there is harmony, unity & integrity between your vision & mission, your roles & goals, your priorities & plans and your desires & discipline

Stephen Covey

How can scalability be achieved?

Deploying digital technologies and then scaling them across the organization is an interrelated, step-wise & linear phenomenon, that and leading service providers envisage a series of 7 logical steps, i.e. (Figure 1: linear automation as follows).

1. “As-is” state mapping
2. Assess & simplify
3. Design & Prototype for “To-be” state
4. Build & Deploy
5. Initiate, Operate & Train
6. Business insights, Maintenance & Support
7. Course correct & scale up

---

**Figure 1: A 7 step linear approach for automation**

- **Course correct & enterprise level scaling**
  - Examine variances within a single function or process and replicate across other functions/process and then deploy a similar approach for subsequent technology

- **Data insights, Maintenance & Support**
  - See automation in action with a variety of mobile & electronic dashboards for business decisions and allocate priority levels for business support services.

- **Initiate, Operate & Train the workforce**
  - Initiate with a seamless inclusion of digital & human workforce, train resources and build measures for contingency planning and exception management with various workflows.

- **Build & Deploy**
  - For the selected automation technology and vendor, select the right testing (UAT) methodology on the shortlisted “To-be” processes along with a business stakeholder sign off.

- **Designing & Prototyping for “To-be” state**
  - Post study of an “As-is” state, affirm on what your “To-be” state needs to look like along with no. of processes, data flows, linkages, redundancies etc. to be reduced and get it validated by various stakeholders.

- **Assess & Simplify**
  - Involves studying of tasks that can be standardized, impact analysis of any variation of tasks or processes along with study of various interrelated data and business transactions and their linkages to various systems.

- **Encapsulate current or “As-is” state**
  - Involves study of all current tasks, activities, processes, SOPs, IT and other operational infrastructure along with an understanding of interrelated data linkages to various systems.
All of these seven (7) steps are cohesive and exist in a linear fashion and are applicable for any digital technology (RPA, IoT or AI as an example) or a particular function to start with (HR, Finance & Accounting or Procurement as an example) and a deviation in this sequence might hamper the scale of automation. The linearity quotient hence in automation can be witnessed via a sequence based approach.

This seven (7) step linear execution approach arises from an integrated & holistic framework adopted by service providers (Figure 2: holistic enterprise framework) for enterprise level transformation to clients consisting of four (4) core elements of automation, i.e. as follows:

- Simplification & Standardization
- Connectedness & Hyper automation
- Customer experience enhancement
- Coupling Intelligence & Analytics in Automation

The enterprise transformation framework inculcates a start to finish approach in managed services environment for ensuring measurable and time bound Return on Investment (RoI) to clients. The framework also allows leveraging multiple solutions for better control and transparency to clients and provides scope for scaling up automation solutions.

Non linearity in automation

'Non-Linearity' in automation is to drive integrated transformation via differentiated offerings leveraging IPs, Platforms, Solutions and Innovative Commercial Constructs (e.g. transaction-based, outcome-based pricing). Another approach to define non-linearity is to achieve more from lesser resources, i.e. be it high outcomes from lower number of FTEs or higher RoI on lower investments.

In a typical enterprise transformation framework, Seamlessness & Connectedness would result in Hyper Automation, and this forms a core of the non-linear automation framework (Figure 3: non-linear automation). The other two core components being Globalization/Localization basis client needs and knowledge based open innovation. These components when blended with traditional offerings for clients, results in a win-win for clients as well as service providers.
A non-linear automation framework would be about the ability to drive independent levers of transformation across the life cycle for enhanced customer experience (CX). (Figure 4: Holistic transformation journey). The different elements in the Figure 4., correspond to an approach that clients can take basis their “As-is or Current state” and can progress their automation journey in either a phased manner or even in a non-linear approach.

Scripting tools would refer to the productivity enhancement tools of data, web or using MS office related tools, Freeware & reusable tools could indicate streamlining of macros, task recorders and picking up pieces of automation which are reusable from the previous phase.

Workflows can also be automated, be it operational activities, reporting or knowledge processes. Then we have the next trio comprising of RPA or RDA as we know combined with AI, Blockchain and Nextgen customer experience tools.

Artificial intelligence could include natural human-computer interactions, algorithm based machine learning & semantic/syntactic learning, while RPA differentiators could revolve around change management, governance process and industry leading partnerships, while workflow management could be controlled on multiple platforms on real time.
E.g. A Retail, CPG or a Manufacturing client could look at initiating Scripting tools followed by Freeware automation, Workflow automation and move on to RPA, AI or NextGen offerings. So the linearity is the journey from one phase to another, while the non-linearity is to pick up the most relevant piece of automation as applicable and progress the journey and deliver at a lower cost or investment. While all of these automation initiatives can be either implemented in series or parallel, they are all heterogeneous and co-exist at some point of time with one another within the ecosystem of automation, and integrated service providers understand this non linearity and hence are able to offer the potential suite of offerings depending of varied needs of clients. The non-linear approach to automation for clients is a pointer to examine a large-scale transformation, as it covers a gamut of offerings.

This approach can actually be quite startling when it comes to actually adopting digital technologies. A detailed due diligence here serves as a key to success and provides the right barometer to clients in terms of actual ground to be covered along their journey of large scale transformation.

In essence, it’s both strategy (planning) & execution (deployment) that should work in tandem for the desired result, with execution bearing a slightly larger weight. Numerous management quotes highlight the importance of execution in winning and a famous quote by Jim Collins, depicts this succinctly, i.e. Building a visionary organization requires 1% vision and 99% alignment which when translated to the case of automation, states that while we aim for non-linearity, a linearity, cohesiveness & heterogeneity is actually mandatory to provide an initial platform for being digital, so that scalability & non-linearity in automation can be a dream which is not farfetched, but is easy to realize.

About the author

Mehul Damani
Mehul brings in 11 years of rich experience dealing with CXO level client executives in Fortune 100 organizations across domains such as Digital transformation, Corporate & Business strategy, B2B/B2C Consulting, Marketing, Pre-sales & Operations.

Endnote

1. Wipro internal research on growth potential of five emerging technologies, i.e. from 2018-24
2. https://jeroen-de-flander.com/strategy-execution-quotes/
Wipro Limited
Doddakannelli, Sarjapur Road,
Bangalore-560 035,
India
Tel: +91 (80) 2844 0011
Fax: +91 (80) 2844 0256
wipro.com

Wipro Limited (NYSE: WIT,
BSE: 507685, NSE: WIPRO) is
a leading global information
technology, consulting and
business process services
company. We harness the
power of cognitive computing,
hyper-automation, robotics,
cloud, analytics and emerging
technologies to help our
clients adapt to the digital
world and make them
successful. A company
recognized globally for its
comprehensive portfolio of
services, strong commitment
to sustainability and good
corporate citizenship, we
have over 160,000 dedicated
employees serving clients
across six continents.
Together, we discover ideas
and connect the dots to
build a better and a bold
new future.

For more information,
please write to us at
info@wipro.com