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Use CALM to build a Minimum Viable Strategy for Agile Business & AI: Theory of Constraints & 5-Step approach

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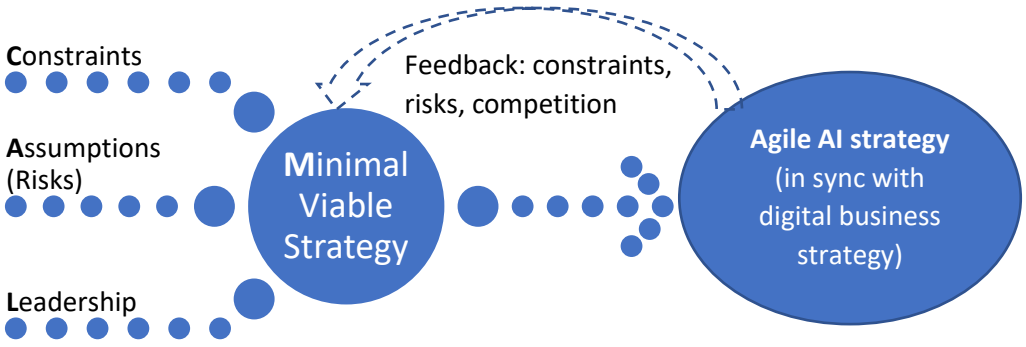
Who should read this: Enterprise CEO (for strategic AI initiatives), strategy office, CDO, CIO, Digital Tech/ Service Providers

Enterprise business and AI leaders must build a minimum viable strategy for agile AI, using the CALM framework

As per 2020 McKinsey surveys on strategic adoption of AI-automation:

- 95% of business leaders are already using or are planning to use, AI as an integral part of their business strategy.
- AI-automation strategic prioritization is proving a critical success factor for businesses, as evidenced:
    - Up from less than 20% pre-2015, just in *last five years*, now 37% of the successful businesses are considering emerging digital technologies including AI-automation as strategic transformation initiatives and change levers.
- Amongst the failing businesses, only 22% think of AI-automation as strategic. So, every successful & relevant business- be it an end-user one or a service/tech provider- is an AI business.
- A good AI strategy must be an agile AI strategy. Digital businesses succeed only with dynamic and autonomously optimizing systems i.e., intelligent & agile,

CALM (**C**onstraints- **A**ssumptions- **L**eadership-**M**inimum Viable Strategy) **framework for agile AI strategy**



The nature of digital business demands an agile business strategy. The Digital business value proposition stems from dynamic journey-mapping of customers/users and delivering digital business 'moments' that are in sync with changing customer behavior and preferences. You cannot deliver those digital moments with static strategies that cannot accommodate the extreme dynamics of digital business realities. Old-school

strategies that have high latency, staleness and change resistance, don't survive the AI test . The success of an agile business strategy best-suited for digital, depends most heavily on an agile AI strategy. AI and intelligent automation are dynamic, learning by design and incrementally evolving. This is inevitable since the data, patterns, models and rules keep changing.[1]

So, a good AI strategy must be an agile AI strategy.

Use the CALM (**C**onstraints- **A**ssumptions/risks- **L**eadership->**M**inimum Viable Strategy) framework to build your agile AI strategy for your digital enterprise:

- **Constraint optimization:** Identification and classification of relevant constraints in executing your agile AI strategy, e.g. business & financial constraints, hard and soft technology constraints, the more difficult people, culture & behavioral change constraints
- **Assumptions rationalization**: Regularly reanalyzing the factors that determined your strategic choices and associated risks. Developing appropriate risk mitigation strategies, techniques & systems.
- **Leadership:** Agile leadership models that are balanced between inspirational and practical aspects, with synchronicity between the business & technology strategies
- **Minimum Viable Strategy:** The Minimum Viable Strategy for agile AI & businesses must be precise, specific, practical, with measurable AI-business strategic objectives [Ref MVS and other strategy research: https://aiswitch.org/ai-practice-tsp, https://aiswitch.org/ai-practice-end-user#2628a0eb-dddd-4589-bda6-728f5ab7b6b9]

Constraint optimization for agile AI strategy using the Theory of Constraints

In the context of constraint optimization for agile business and AI strategies, the following concepts of Theory of Constraints (ToC) that are highly applicable and relevant:

1. The three measures of success are ***throughput***, ***opex*** and ***inventory***,
2. Explicitly define the organizational goals. Profits/ revenue/ growth - follow,
3. Use the ***5-steps focusing*** approach to target effort wisely and solve problems,
4. Know your he ***internal and external constraints*** (SWOT) e.g., equipment, people and policies, and legal & regulatory frameworks, safety & security, quality etc.
5. Use established techniques for breaking and ***elevating a constraint***, and creating and optimizing buffers

In the context of agile business and AI strategies, the equivalent TOC practice framework will include:

Key concepts of TOC	TOC Equivalent factors in MVS for agile business & AI
Throughput, opex and inventory	• Sales targets enhanced through agile, AI-first businesses • Opex optimization through agile business & AI strategies (reduced rework/ error, opex of production/ fulfillment lowered due to intelligent automation) • Inventory (assets available, may include land/ infra/ cash/ data/

	talent- anything that can be monetized)
Organizational goals, e.g. profits/ revenue	• Increase revenue realization speed through faster fulfillment (agile business & AI) • Increase profits due to new digital business channels & offerings
The 5-steps focusing approach	**1. Identify the top 3-5 business & AI systemic constraints that are stopping/ hindering the company from achieving its targets/ goals** **2. Decide how to overcome the identified constraints** **3. Subordinate all other strategic business & tech initiatives to the above decisions (i.e. Prioritize on alleviating top constraints)** **4. Alleviate the constraint(s).** **5. If in the previous steps a constraint has been broken, go back to step 1 i.e. reprioritize the constraints/ identify new ones, without allowing inertia to set in**
Internal and external constraints	• Equipment e.g. tech debts, legacy infra, data infra • People constraints e.g. lack of skills/ training/ certified workforce • Policies, ethics, governance, legal & regulatory frameworks • Data infra, security & quality issues
Breaking and elevating a constraint. Buffers	• E.g. alleviate the data unavailability constraints by prioritizing less-data learning algorithms & usecases in your MVS for agile AI • Create tech infra buffers elastically (demand spikes/ usage-based) through cloud/ hyperscaler partnerships in your MVS for agile business & AI

The ABC classification of constraints is helpful when building a Minimum Viable Strategy for an agile enterprise and AI must include:

- A: External/ Business constraints e.g. demand, financial (RoI) opportunity/ access and competitive landscape related constraints; legal & regulatory constraints by regions (e.g. GDPR, PCI-DSS, HIPAA, IEEE P7000, EU's 2021 tech strategy- including setting up a regional internet)
- B: Technology constraints e.g. lack of innovations & R&D, costs, tech lock-in/ data quality, staleness, security and access constraints
- C: Soft intra/ inter-organizational constraints e.g., interactions between People & Machines creating a unique culture for each organization, partner success/ capabilities, coopetition

Future research will show:

- Techniques like SWOT, that can be used for Identification of constraints, and techniques for breaking constraints.
- Further analysis of cascading effects and how new bottlenecks may pop up
- Techniques for easing bottlenecks, including scenario planning and viewpoint engineering.

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1. Vanilla Robotic Process Automation (RPA) is excluded from this discussion. RPA can do a good job with usecases suitable for static rules and structures.