

Business Model Canvasses Revisited: Complementing Dynamic Layers for Start-up Investment and Entrepreneurial Perceptions

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Abstract: Current sustainability frameworks, such as the Triple-Layered Business Model Canvas (TLBMC), succeed in mapping environmental and social impacts but often fail to address the 'entrepreneur-or-investor-eye view' or the fast-changing realities and/or perceptions of the start-up space. To bridge this gap, this paper proposes the Venture-as-a-Product (VaaP) model; based on a dynamic 12-Slot-Scale able to synthesize diverse rubrics such as, for example, BMCs, it allows start-ups to define their ventures' flows and services by addressing client value and investor-readiness simultaneously. The framework expands the Osterwalder-Joyce-Paquin 9-slot-foundations by introducing a Perceptual Alignment Layer (PAL) of common denominators, including Operational Mapping, Internal Balancing, and Accountability Profiles. The dynamic scaling allows for affording a diagnostic, predictive, and iterative tool for start-ups, incorporating Suh's Axiomatic Design to ensure structural stability and methodologies like, for example, Greiner's Growth Phases to anticipate organizational crises. By transforming traditional static 'canvas elements' into modular dynamic 'Nodes', the VaaP model enables founders to communicate complex flow trajectories and risk-mitigation strategies to stakeholders. Specifically, the paper highlights how one of the added slots (Scalable Integrity) integrates 'Trust Engineering', turning intangible entrepreneurial perceptions into assessable milestones. This research offers a start-up-friendly template that balances the requirements of a sustainable future with the firm metrics of financial backing, ultimately empowering founders to navigate uncertainty while offering investors a clear view of risk, return, scalability, and credibility. It also offers venture builders or startup studios/factories a means to integrate their portfolios.

Keywords: Business Model Innovation (BMI), Business Model Canvas (BMC), Axiomatic Design, Entrepreneurship, Start-up Investment, Sustainability, Minimal Viable Product (MVP), Viable System Model (VSM), Venture-as-a-Product (VaaP), Venture-Builder Ecosystems, Start-up Factory.

1. From Impact Mapping to Venture Engineering

The integration of diverse market-relevant segments into a core business strategy has been significantly advanced by the Triple-Layered Business Model Canvas (TLBMC) (mapping economic, environmental, and social value (Osterwalder and Pigneur, 2010; Joyce and Paquin, 2016)) as well as by various propositions to extend its nine-stage-range (Matricano and Liguori, 2026). However, for entrepreneurs and investors in the burgeoning 'start-up factory' and venture-builder ecosystem, these tools remain inherently descriptive and static. They succeed at mapping impact but often fail to capture the 'investor-eye view' or the fast-changing realities and perceptions of the entrepreneur.

This paper addresses this gap by proposing the Venture-as-a-Product (VaaP) model. It applies a recently proposed generative Architecture for Canvas Ecosystems (ACE) Framework (Schmitt, forthcoming). While preserving the intuitive grasp of the visual canvas layout as well as its familiar logic, it adds further BMC layers (by applying a perceptual alignment layer) to interact with ACE's cybernetic feedback loops to benefit entrepreneurs and start-up investors. While Business Model Innovation (BMI) is typically viewed as a series of discrete strategic shifts, the ACE-approach reframes BMI as a continuous, cybernetic process based on an iterative knowledge management model (termed SICECE¹ (Schmitt, 2025)) which provides the structural 'rigging' and motivates and rationalizes canvas expansions as exemplified in this paper's entrepreneurship and start-up investment context.

Building on the synthesis of dynamic knowledge creation models (Schmitt, 2025) and the proposed Canvas architecture (Schmitt, forthcoming), this research offers three distinct contributions to the field of Business Model Innovation (BMI):

¹ The SICECE cycle (seizing/stewarding, imbedding/immersing, collating/collaborating, encompassing/edifying, curating/consolidating, effectuating/easing) reverses and extends Nonaka's renowned SECI (socialize, externalize, combine, internalize) and Ba model (Nonaka, Toyama and Konno, 2000) to personalize knowledge management and knowledge co-creation (system-in-development) serving a for community of knowledge workers characterized by diverse abilities, contexts, means, and ends (ACME) (Schmitt, 2025).

- *The Entrepreneur-versus-Investor Pillar (The 4th Layer)*: A dedicated fourth layer to the TLBMC is introduced specifically designed to address the 'internal' concerns of the founder. This layer acts as a structural dashboard for technical founders to communicate venture health and 'investor-readiness' through common denominators like 'Operational Mapping' and 'Accountability Profiles' able to complement traditional BMCs by integrating start-up metrics not explicitly covered yet.
- *Kinetic Cybernetic Governance*: Moving beyond the static snapshot limitation of current canvases, traditional TLBMC elements are transformed into modular dynamic 'Nodes': Fusing the TLBMC starting slot with the ninth Slot (i) of the SICECE's cycle creates a metabolic 'Curation Body' scaffolding which enables active governance, where the business model functions as a diagnostic, predictive, and iterative navigation system.
- *The Due-Diligence Reshuffle*: Logically re-ordering this 4th-layer start-up rubrics creates the 5th-layer 'VaaP-Logic'. This contribution allows founders to repurpose their operational milestones into a predefined sequence that mirrors the 'investor-eye view'. This transforms an entrepreneur's to-do list into a professional due-diligence asset, leading with team capacity and technical affordances to build institutional trust and credibility.

By synthesizing these three novel approaches, the VaaP model transforms the BMC from a passive static report into a modular, scalable, iterative, dynamic, and high-fidelity asset - an essential progression towards developing a sustainable future of venture building (de Giorgio and Maffei, 2026). This heuristic enables the re-use of created knowledge assets instead of sisyphian efforts consuming time and attention, ultimately offering entrepreneurs to present investors with transparency concerning risk, return, and scalable integrity (SICECE Slot 12: I).

Based on a longitudinal research and publication trajectory combining conceptual analysis, systems thinking, and design science research methodologies (Schmitt, 2016, 2021), the aim is to provide a startup-friendly heuristic that caters for the straightforwardly codifiable vital drivers of viable start-ups and, in chorus, treats the venture itself as a modular product. This paper acts as an illustrative scenario² for the mentioned cybernetic-feedback-loop-enhanced Architecture for Canvas Ecosystems (ACE) (Schmitt, forthcoming).

2. Literature Review

As the longitudinal academic research has been complemented by the author's founding of a Mauritian start-up, the layers' criteria are rooted in the first-hand experiences gained (Schmitt, 2022, 2023; Schmitt and Jolicoeur, 2024). The 'realities' of start-ups have, for example, been laid out as a hierarchy of entrepreneurial 'altitudes' depicting seven venture-complexity levels: 1. Initial Ideation, 2. Niche Slots, 3. Advancing into Complex Territories, 4. 'Wicked' Territories and Radical Change, 5. SES: Social Entrepreneurship and Transformations, 6. SE: System Entrepreneurs and System Evolution, and 7. Entrepreneurial Stage-Growth Barriers (Schmitt, 2018; Schmitt and Jolicoeur, 2024). Start-up ideations of transforming conventional agendas into novel world-making realities are, hence, facing an 'up-hill' battle already, not to be further complicated by cumbersome, non-integrated entrepreneurial toolsets. The mini-tracks theme is, hence, being re-interpreted by focusing on the sustainable future of the entrepreneurs' finite cognitive and attention capacities in the context of rethinking Business Modeling: Infocration (Cornella, 2000) and knowledge wastes manifest as losses of know-how, memory, time, money, and status, alongside negative impacts on well-being and relationships. A review of 51 studies identified recurring knowledge conversion failures (Ferenhof, Durst and Selig, 2015) across all BMC and SICECE stages: S: Poor tools and underutilized people; I: Communication barriers and reinvention; C: Misfit infrastructure and poor coordination; E: Lost resources and scatter; C: Separation of knowledge, responsibility, and feedback; and E: Skill barriers and disrupted workflows.

² As this platform is still under development, neither its testing in a real-world application space nor the publication of a case study is possible. While case studies, following Yin's definition, evaluate the performance of designed objects in complex, specific, real-world settings (Yin, 2009), illustrative scenarios extend this scope to artifacts' suitability/utility within a synthetic environment, which may include more generalizable or even ideal contexts (Peffer et al., 2012).

2.1 Rethinking and Repurposing Static BMCs as Systemic Nodes and Flow Dynamics

Schuricht's study of 928 publications (Schuricht, 2026) across five identified BMC-clusters informs about a three-fold feature of their static but process-oriented modelling logic: (1) Action verbs implicitly operationalize static components, (2) an implicit generic flow logic accommodates diverse cluster manifestations, and (3) static elements can be effectively repurposed as dynamic nodes for continuous, holistic orchestration. By re-interpreting these multi-disciplinary canvasses as configurations of meaningful nodes, the focus shifts to their connecting 'flow profiles' (e.g., network patterns, flow directionalities, exchange types, magnitudes and constraints). The ACE framework explicates these patterns and further amplifies them.

2.2 Towards an Architecture for Canvas Ecosystems (ACE)

The traditional Business Model Innovation (BMI) discourse treats the 'Business Model' as a static map of value. This paper proposes to explicate Schuricht's observations (section 2.1) to expand the width and depth of the BMC architecture and to address its shortcomings in the entrepreneurial contexts. Figure 1 shows the integration of these objectives based on the classic BMC layout, flow, and TLBMC entities (a1-i0: blue, green, and yellow labels). It further integrates the Axiomatic Design Loop (AD) (Suh, 1995). The right side depicts the extension slots (jkl) of the SICECE (consolidating, effectuating/easing). All twelve slots (a1-l) have been labelled to highlight their distinct but complementing function. The axiomatic design cycle with its stages (a1:CA, c3:FR, e5:DP, g7:PV) and design matrices (b, d, f, h) are also shown.

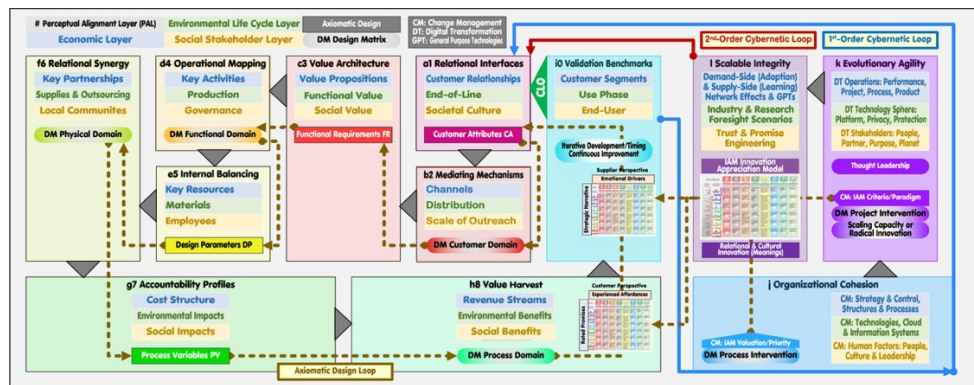


Figure 1: TLBMC Layout (left) with cybernetic ACE loop extensions (right) (Schmitt, forthcoming)

Slot i0 (fusing the 9th SICECE curating i-slot and BMC:0 starting slot) acts as the Validation Benchmark. In the context of the '3D-Map of Dynamic Knowledge Creation' (Schmitt, 2025), Slot i0 functions as the system's Metabolic Gateway, the control node in a cybernetic loop where the 'Functional Intent' (slot a1: what was expected) is compared to the 'Operative Reality' (slot h8: what has been delivered) (Table 1). This common i0-Slot provides the 'ideal sensor/vantage point': If value propositions fail, new BMC assessments are triggered.

For a Venture Builder, this slot may act as the 'Curation Body' that monitors the entire portfolio. It allows the builder to detect a 'Perceptual Mismatch' across multiple ventures at once, triggering a potential CL0:operative disruption for CL1:tactical or CL2:strategic corrections to preserve the 'Knowledge Heritage' of the start-up factory. It allows to pool the outcomes of otherwise isolated start-up projects (see Lean Canvas application in a startup studio space (Meijer, 2019; Maurya, 2022)) for time-saving recalls, re-uses, and resourcefulness. Table 2 (blocks A and B) differentiates this synthesis of the BMC, AD, SICECE, and CL:012 further.

Table 1: VaaP Structural Alignment to Venture Building Requirements

VaaP Slot	VB Industry Needs	Source Context	Designer/Provider Logic
a-c (Foundation)	Repeatable Ideation	(Meijer, 2019)	Standardizing 'Capacities' and 'Tech Affordances'.
d-g (Integrity)	De-Risking Scaleups	(Belingheri and Lechner, 2025b)	Mapping 'Path Dependencies' and 'Compliance'.
i (Sensor)	Portfolio Curation	(Schmitt, 2025)	The 'Brain' that audits mission-alignment.
j-l (Agility)	Rapid Pivotability	(de Giorgio and Maffei, 2026)	Engineering 'Trust' and 'Scalable Integrity'.

Table 2: BMC/TLBMC with SICECE Model, Cybernetic Loops Agile Systemic Processes (CLASP), Axiomatic Design, MVP, Stage-Growth Barriers, and BMC Criticisms

12-Slot Scale	a	b	c	d	e	f	g	h	i	j	k	l
A.												
SICECE Cycle	Seizing	Stewarding	Imbedding	Immersing	Collating	Collaborating	Encompassing	Edifying	Curating	Consolidating	Effectuating	Easing
1. Cybernetic Loops (CLASP: CLJ)	CL h/j-l → Pathway Advancing	→	→	→	→	→	→	CLJ (h→i) (operative) Procedure Advancing	→ Prompt Awakening	CL1 (i→j) (tactical) Process Actuating	→ Perimeter Adjusting	CL2 (i→j) (strategic) Project Adapting
2. Axiomatic Design (Suh, 1995)	Customer Attributes (CA)	Customer Resourcing Design-Matrix	Functional Requirements (FR)	Functional Options Design-Matrix	Design Parameter (DP)	Physical Projections Design-Matrix	Operative Variables (OV)	Product Fitness Design-Matrix	-	-	-	-
3. Minimal Viable Product (MVP)	Insights (explore) Empathize (learn) Detect Challenges	Desirability (Customer Value)	Ideate Solutions (design & build) Pivot Design	Feasibility (Technology & Architecture)	Evaluate Solution (pilot & measure)	Viability (Sustainable Business)	Synchronizes 'Higher Authority' Entity or Vision	Suitability PMF Product-Market-Fit	Minimal Viable Product (MVP) Continued Quality Improvement Cycle	-	-	-
4. Barriers of Growth 1	5 Collaboration Barriers	(Need for Revitalization)	1 Entrepreneurial Barriers	(Crisis of Leadership)	2 Collectivity Barriers	(Crisis of Autonomy)	3 Differentiation Barriers	(Crisis of Control)	4 Formalization Barriers	(Crisis of Red Tape)	6 Alliances Barriers	(Need for Synchronization)
B.	a from BMC: 1	b from BMC: 2	c from BMC: 3	d from BMC: 4	e from BMC: 5	f from BMC: 6	g from BMC: 7	h from BMC: 8	i from BMC: 9	j - added	k - added	l - added
1. Economic Layer (original BMC) (TL)-BMC	Customer Relationships	Channels	Value Propositions	Key Activities	Key Resources	Key Partnerships	Cost Structure	Revenue Streams	Customer Segments	CW: Strategy & Control, Structures & Processes	DT Operations: Performance, Project, Process, Product	Demand-Side (Adoption) & Supply-Side (Learning) Network Effects & GTFs
2. Social Stakeholder Layer TLBMC	Societal Culture	Scale of Outreach	Social Value	Governance	Employees	Local Communities	Social Impacts	Social Benefits	End-User	CW: Human Factors: People, Culture & Leadership	DT Stakeholders: People, Partner, Purpose, Planet	Trust & Promise Engineering, Emergent Innovation
3. Environmental Life Cycle Layer TLBMC	End-of-Line	Distribution	Functional Value	Production	Materials	Supplies & Outsourcing	Environmental Impacts	Environmental Benefits	Use Phase	CW: Technology, Cloud & Information Systems	DT Technology Sphere: Platform, Privacy, Protection	Industry & Research Foresight Scenarios, Dominant Designs
4. Early-Stage Start-up BMC Dilemmas: Proof of TLBM Gap ²	fails to consider intermediaries in complex supply chains	under-representation of stakeholder views & external forces	lack of strategy & mission-driven start-ups support	lack of iterative & experimental depth: build-measure-learn	absence of founder-managerial competence mapping	shallow financial insights, often lack of layer-integration	qualitative-only bias lacking quantitative 'audit-ready' metrics	rigid structure without focus on iterative processes	over-simplification, no competitive & regulatory trends	tensions - layers lack vertical coherence, missing MVP-PMF	no cycling/scaling or dynamic capability, no VSM logic (Beer)	no exit alignment for investors, no IP policy of patenting
5. Co-Confidencing ³ Pre-seed venture formation supporting IP commercialisation (Dennis, 2026) ⁴	Ecosystem participation, tangible industry engagement & strategic partnerships	Shifting geography-to-network-dependency, project-based validation assisting strategic positioning	Prioritizing demonstrated performance for credibility-building, validated use cases, actual demand contexts/conditions	Staged progression for accumulating evidence/competency, competitive platforms for deploying under pressure, pilot or lighthouse projects	Reverse-engineering key judging criteria, compounding effects via facilitated knowledge spillovers, use of structured tools for resource efficiency	Institutional orchestration for investor-mediator-market access, distributed SME networks, fostered B2B collaborations	Mechanism for early-stage risk compression for building judgement, execution capability, adaptability, traction	Systematic, parallelised experimentation vs. sequential & path-dependent venture discovery model, secured grant-inwards	Parallel multiple-team discovery avoiding initial framing biases for increased certainty	Scalable & replicable approaches, adaptive execution & rapid iteration to amplify credibility	Strict eliminations for substantive validation, third-party endorsements reduce uncertainty, shaping venture trajectories	Shift from venture-to ecosystem-centric thinking (Kaizen) for scalable pipelines, participation in IP commercialisation

Legend: Transitions/Flows versus Stages/States/Stocks (depicted as an iterative cycle in analogy to the colour wheel)

(Osterwalder and Pigneur, 2010; Joyce and Paquin, 2016) and (based on: (Schmitt, 2025), (Suh, 1995; Beer, 1979; Argyris and Schön, 1997)

While Table 2 (block A) summarizes the mentioned foundational paper (Schmitt, forthcoming), it also exemplifies how the Minimal Viable Product (MVP) Tool as well as the Stage-Growth-Model (Greiner, 1998; Levie and Lichtenstein, 2009) have been integrated as two further rubrics with their stages and transitions. Table 2 (rows B1-3/a-i) details the the triple-layer-9-Slot-TLBMC (Osterwalder and Pigneur, 2010; Joyce and Paquin, 2016). The dynamic and cybernetic feature (block A) now also apply to the TLBMC (block B): its three static sBMCs have been transformed into three iterative dynamic dBMCs rubrics.

The shortcomings we referred to are summarized (Table 2, row B4) as the dilemmas start-ups face (aligned to the BMCs concerned) when dealing with the conventional static sBMCs. Just adding a few more elements, however, is not sufficient: in order to take advantage of these novel affordances, the start-up also needs to hone the necessary insights and interdependencies required which forms part of its success and has been summarized (Dennis, 2026) and framed as an co-confidencing experience (Untamala, 2014) (block B, rows 5). Table 2 (block B/j-l) shows how the initially unpopulated TLBMC Slots have been utilized with additional complementing methodologies addressing change management (Leavitt, 1962; Heisig, 2009), the digital transformation canvas (Elia *et al.*, 2024), and general purpose technologies patterns (Cantner and Vannuccini, 2012). Based on these foundational layers, section 3 focuses on their expansions towards the three research contributions based on the ACE.

2.3 Venture-as-a-Product (VaaP), Venture Builders, and the 'Industrialized' Startup

The paper proposes a shift towards a Venture-as-a-Product approach (VaaP). Much like 'Software-as-a-Service' (SaaS) standardized software delivery, VaaP 'productizes' the internal architecture of the startup itself. In this view, the venture is not just a vehicle for a product; it is a modular, high-fidelity asset engineered for scalability, trust, and divestment. Venture Builders (or Startup Studios) treat venture creation as a repeatable, industrialized process (Belingeri and Lechner, 2025a). Recent research in 'Smart Manufacturing' highlights a bottleneck: the 'sisyphus' cycle where founders struggle to communicate technical maturity (de Giorgio and Maffei, 2026). VaaP addresses this through the 12-Slot 'structural rigging' based on fusing the SICECE cycle with Axiomatic Design (Suh, 1995) principles, allowing builders to 'decouple' core missions from operational changes during pivots.

3. Towards Entrepreneurial Support, Venture-as-a-Product, and ACE

3.1 An Illustrative ACE Scenario: Mapping Neglected Start-up Realities and Knowledge Friction

Table 3 (row C1) shows the Perceptual Alignment Layer³ (PAL) which defines an overarching semantic space (by preserving the intuitive grasp of the original canvas logic) for expanding the canvas structure with appropriately termed BMC-type layers/rubrics. To identify the fit-for-purpose candidates and terms for the slots (a-l), the shortcomings and co-confidencing evidence (Table 1 rows B45) have been transformed into ‘Prescriptive Logic (validators)’ (Table 3, rows C234). These validators together with a generative meta-framework dyad were used to derive the terms for the 4th ‘Start-up’ dBMC 12-Slot-Layer/Rubric and to ensure their linguistic and conceptual consistency across all 12 slots. Like their dTLBMC counterparts (Table 1 rows B1-3), they are progressing and comply with the Perceptual Alignment Layer (PAL) which essentially acts as a ‘Translation Engine’ to prevent the frictions and wastes cited earlier. This sequence utilizes a stock/state (conceptual nodes: acegik) and flow/transition (metabolic gates: bdfgil) logic, mirroring Axiomatic Design's mapping between domains to visualize the venture's developmental ‘pulse’. The priority of these elements follows a ‘Centrifugal Expansion’ logic across three evolutionary phases:

- Phase 1 (a–c: External Intent) establishes the venture’s relational interface and value architecture to bridge initial trust and ideation gaps.
- Phase 2 (d–f: Internal Integrity) focuses on engineering the internal engine through operational mapping and resource balancing.
- Phase 3 (g–i: Systemic Stability) establishes the accountability profiles and validation sensors necessary for risk compression.

Table 3: Continuation of Table 1 with Perceptual Alignment Layer (PAL)

12-Slot Scale	a	b	c	d	e	f	g	h	i	j	k	l
C.												
1. Perceptual Alignment Layer (PAL)	a Relational Interfaces	b Mediating Mechanisms	c Value Architecture	d Operational Mapping	e Internal Balancing	f Relational Synergy	g Accountability Profiles	h Value Harvest	i Validation Benchmarks	j Organizational Cohesion	k Evolutionary Agility	l Scalable Integrity
2. Prescriptive Logic (Validators)	External Intent - Initial Trust & Ideation			Internal Integrity - Capacity & Financial Depth			Systemic Stability - Risks & Validation			Interventionist Authority - Agility & Scale		
3. BMC Augmentation (Structural Agency)	Stakeholder Inclusion: Ensuring external forces (customers/partners) are actually modeled.			Strategic Depth: Moving past ‘shallow financial insights’ to mission-driven resource allocation			Iterative Validation: Checking for PMF and circumventing the ‘rigid structure’ of static canvases.			Exit/Investor Alignment: Ensuring the structure supports IP transfer and investor requirements.		
4. Co-Confidencing (Process Agency)	Supportive Sharing: Building trust with the ecosystem and university IP sources.			Meaning-making: Converting R&D results and raw data into a coherent ‘Founder Narrative’.			Practicing: Actively testing the tech under pressure; risk compression via experimentation.			Scaling Integrity: Moving from ‘My Startup’ to ‘Ecosystem Asset’ (IP commercialization).		
5. 4 th BMC Layer: Start-up Canvas	a Client Acquisition & Retention	b Compliance & Competition for Dominant Design	c Vision/Mission & Institution Building	d Research & Development Agenda	e Capacities & Organizational Know How	f Sponsors & Financial Backing	g Technologies (Physical/Social)	h Flows, Change, & Projections	i Risks & Path Dependencies	j MVP & other Entrepreneurial Toolsets	k Growth Barriers: Incipient, Growth, & Maturity Stages	l Innovative Steps & IP considerations
D.												
1. Prescriptive Logic (Validators)	The Foundation (Foundational Inputs)			The Integrity (Structural Alignment)			The Stability (Systemic Governance)			The Agility (Evolutionary Feedback)		
2. Investor Focus	Management Quality	R&D Velocity	Adoption Potential	Moats & Barriers	Technical Assets	Capital Efficiency	Institutional Credibility	Traction Metrics	Risk Resilience	Operational Agility	Scaling Stages	Returns & Exit
3. Pitch Deck Label	Team-Talent-Trust	Innovation & IP	Market & Access	Competitive Edge	Systems & Stack	Runway & Funding	Vision & Strategy	Growth & Results	Waste & Rigor	MVP & Iteration	Scale-up Roadmap	Exit & ROI
4. VSM Role	S1: Capability Assessment	S4: Future Scanning	S1: Market Interface	S2: Conflict Resolution	S3: Internal Operations	S3: Resource Allocation	S5: Policy & Identity	S3*: Audit & Verification	S4: Environmental Adaptation	S3/S4: The Ops Room	S5: Evolution & Change	S1-S5: Total System Synergy
5. Contextual Description Focus	‘Management Quality’ by quantifying expertise & ability to internalize knowledge.	‘Flow of Technical Discovery’ by constantly refracting ‘Waste’ of production to maintain competitive relevance.	‘Startup Composition’ to meet customer attributes to ensure ‘Market-Size’ potential to meet with systematic adoption approach.	Venture Approach’ to navigate competitive & Disruptive Design’ constraints, turning regulatory friction into structural advantage.	Physical & social technical constructs (‘Attractive Technology’ stack) providing backbone for accountability & audit-ready metrics.	‘Financial Consistency’ by aligning ‘Sponsors’ with venture’s burn-rate & capital needs, mitigating risk of contractual collapse.	‘Venture’s ultimate Endeavour’ (vision & mission) transforming simple startup into credible institution that investors can trust for long-term value.	Monitors projections & operational reality conversion (‘Value Harvest’) to benchmark against ‘Favorable Performance’.	Identifies path dependencies & challenges for ‘Resilience’ required to handle market volatility without systemic failure.	Utilizes toolsets like MVP to manage contingencies for ‘Operations Room’ view needed for immediate re-engineering (CL1).	Navigates growth barriers by applying creative ‘Policy Direction’ (S5) to overcome a Grainer’s crises.	Projecting incentive steps & IP system calibrating venture’s ‘Scalable Integrity’ for high-value exit or sustainable expansion.
6. 5 th VaaP Layer: Investors’ View	a-c Capacities & Organizational Know How	b-d Research & Development Agenda	c-e Client Acquisition & Retention	d-f Compliance & Competition for Dominant Design	e-g Technologies (Physical/Social)	f Sponsors & Financial Backing	g-h Vision, Mission & Institution Building	h Flows, Change, & Projections	i Risks & Path Dependencies	j MVP & other Entrepreneurial Toolsets	k Growth Barriers: Incipient, Growth, & Maturity Stages	l Innovative Steps & IP Creation/Protection
7. Key Interests of Venture Capitalists ¹ .	B6 quality of management	S2 high likelihood of customer adoption	T0 Large market size & growth	T1 positive influence of other investors	A2 Attractive product & technology	S2 low valuation	S5 attractive business strategy/model	S1 favorable performance w/ data	S4 favorable competitive position	-1 costs to monitor investment	S2-good fit in VC investment portfolio	S1 financial market conditions & exit ops
8. Beer’s VSM Re-interpretation ² (Beer, 1978)	VSMER: Environment & External Markets or Strategic Business Areas (SBA)	ES16: Sustainable Customer Value Opportunities SBA meets SBU	VSMSE: Units Institutionalizing or Strategic Business Units (SBU)	VSMSE16: Unit Plans Ideation Scenarios SBU decisional phases	VSMSE16*: All Units Consolidated Plans of SBUs	VSMSE2: Institutional-wide Co-ordination	VSMSE3: Auditing Synchronize with Goals/Constraints & Regulatory Aims	VSMSE3: Controlling Operational Control: Suitable Deliverables & Workable Operations	VSMSE4: Development Operations Room Knowledge Mgmt. External Liaisons	VSM 3 × 4 × 5 Performance Metrics/Projections & Interventions	VSMSE5: Policing Strategic Direction Operational Alignment ‘Multi-Mode’ Agency	3 × 4 × VSMSE × 6 Transformation World-Making Alliances/Networks
9. Prescriptive Logic (Validators)	External Forces			Autonomic Management of the Organization					Ethical & Environmental Impact			

Legend: Transitions/Flows (bdfgil) versus Stages/States/Stocks (acegik) (depicted as an iterative cycle in analogy to the colour wheel)

³ The proposed Architecture for Canvas Ecosystems (Schmitt, forthcoming) applies PAL to twelve generic classification terms for each Slot (a-l) to envelop the three sBMC terms (Table 2 rows B1-3) and to create a distinct but complementing semantic space to synergetically position elements of further rubrics (Table 3C). PAL extends the canvas structure while preserving the intuitive grasp of the canvas logic.

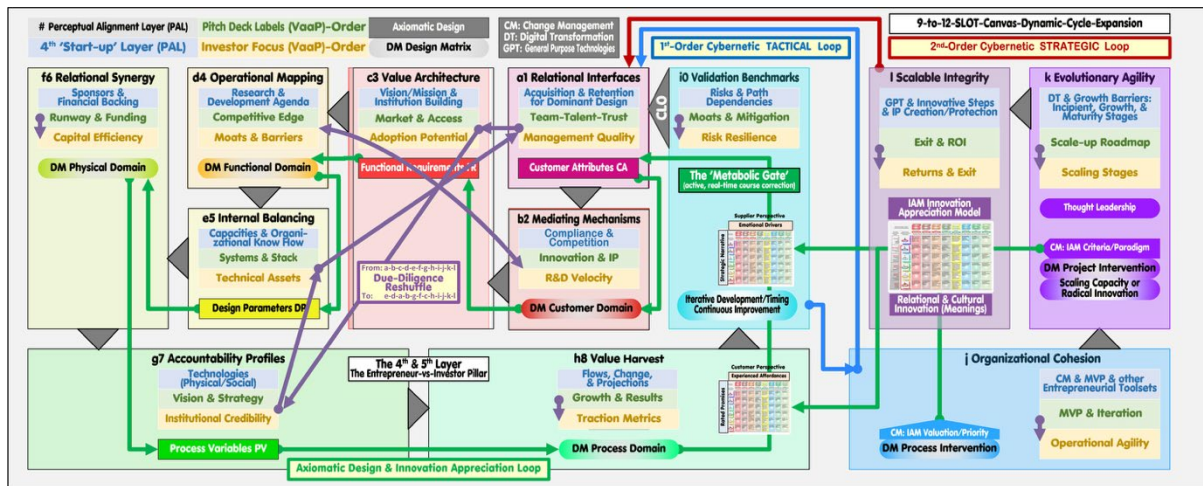


Figure 2: 4th 'Start-up' BMC Layer/Rubric & 5th 'Venture-as-a-Product (VaaP)' Rubric with Pitch Terms

As detailed in Table 3 (blocks C & D), this progression ensures that every stock/state (conceptual node) is activated by a corresponding flow/transition (metabolic gate), ensuring the venture remains structurally sound and investor-ready.

3.2 The Dynamic Due-Diligence Reshuffle: 4th 'Start-up' BMC Layers to 5th 'VaaP' Rubrics

Figure 2 mirrors Figure 1 with the dBMCs replaced by the 4th 'start-up' and 5th VaaP layers/rubrics (terms as in Table 3, rows C5 & D6). The VaaP model/rubric effectively functions as a 'Due-Diligence Dashboard.' When investors evaluate startups, they move through a specific narrative arc (Table 3, rows D1-3/a-l) that fits a rearranged sequence of the 4th 'start-up' rubric's progression and also fits the VSM model as summarized in the contextual description (Table 3, rows D45). The alignment with an extended Beer's Viable System Model (VSM) (Table 3, row D8) ensures the venture is 'pre-wired' for institutional control, transforming it from an idiosyncratic project into a transferable, productized asset suitable for exit or ecosystem integration.

The 5th layer reshuffles the start-up's internal logic into a sequence (Table 3, C5 to D6: e-d-a-b-g-f-c-h-i-j-k-l) that leads with Management Quality (Table 3, C5e/D6a) and R&D Velocity (Table 3, C5b/D6b), directly addressing the primary heuristics used in VC decision-making (Kaplan and Strömberg, 2004) (Table 1, row D7). Belingheri argues that the primary value proposition of Venture Builders is the 'de-risking' of entrepreneurship (Belingheri and Lechner, 2025b). Traditional 'fire-and-forget' business models are insufficient for this purpose. The VaaP model addresses this by integrating 'Axiomatic Design' Principles (Suh, 1995) to ensure that the venture's 'Functional Intent' remains independent of its physical implementation. This decoupling allows portfolio managers to 'pivot the process' (Table 3, C5j/D6j) without causing a 'systemic collapse' of the venture's core value proposition.

Studies emphasize the need for 'strategizing the ideation phase' in startup studios, particularly for 'Smart Manufacturing'. In these complex technical environments, founders often face the mentioned 'sisyphian efforts'—repeatedly re-explaining technical affordances to non-technical investors (Meijer, 2019). The VaaP model solves this through its 'Perceptual Alignment Layer (PAL)', translating complex 'R&D Discourses' (Table 3, C5b/D6b) and 'Tech Affordances' (Table 3, C5g/D6e) into a standardized 'investor-eye view'.

3.3 Repurposing Static and Novel BMCs as Systemic Nodes and Flow Dynamics

The novel ACE and VaaP approaches also exemplify the versatility of the dynamic SICECE-driven KM model (Schmitt, 2025) by expanding its application for dynamizing the conventional static BMC notion. These extensions are grounded in Suh's Axiomatic Design (Suh, 1995) to ensure structural integrity, and to provide core know-how (BMC, MVP, and start-up rubrics) as well as predictive diagnostic for organizational crises (as exemplified by the Stage-Growth-Phases/Barriers). The outcome affords a startup-friendly heuristic (or transdisciplinary boundary object (Star, 2010)). that treats the venture itself as a modular project/product, balancing the requirements of a sustainable future with the hard metrics of financial readiness and scalable integrity.

The foundational paper (Schmitt, forthcoming) provides further background by focusing on the rationales of dynamizing these canvasses based on cybernetic feedback loops and aiming for scaling canvas-'membership' in

the 'club' of dynamic knowledge creation models presented as a public-transport-type 3D-map (Schmitt, 2025). While Business Model Innovation (BMI) is typically viewed as a series of discrete strategic shifts, the ACE framework affords as a continuous, cybernetic process based on the 12-slot-scale (Table 2 & 3) providing the structural 'rigging', grounded in growth and diagnostic phases. The resulting VAAP ensures an entrepreneur is not just innovating THE product and business but also a "productized venture" that can be sold, scaled, or pivoted with the same precision as any other artefact.

4. Conclusion: From Static Artifacts to Kinetic Governance

The BMI evolution has reached a critical juncture where descriptive frameworks no longer suffice for the high-velocity, risk-intensive environment of venture building. As this paper has demonstrated, the Triple-Layered Business Model Canvas (TLBMC), while effective for sustainability mapping, leaves a significant 'Perceptual Gap' between entrepreneurial intent and investor requirements. By introducing the dynamic Venture-as-a-Product (VaaP) model, we have proposed a structural solution that moves beyond static snapshots toward a system of kinetic governance:

- *Bridging the Professional Due-Diligence Gap:* The research highlights that the primary friction in early-stage investment is not a lack of vision, but a lack of 'Accountability Profiles' (Table 3, C1/5g) and 'Operational Mapping' (Table 3, C1/5d). By addressing the documented weaknesses of traditional canvases—specifically the qualitative bias and the absence of founder-managerial competence mapping (Table 3, C1/5e)—the VaaP model transforms the business model from a creative sketch into an audit-ready asset, so founders do not longer have to feel like pushing the same 'pitch' rock up the hill every time they meet a new stakeholder. This 'Due-Diligence Reshuffle' ensures that technical founders can communicate 'Management Quality' and 'R&D Velocity' through the Perceptual Alignment Layer (PAL), translating 'not-knowing' into 'co-confidencing' (Untamala, 2014; Dennis, 2026). Ultimately, the venture's internal metrics (Table 3, C1/5def) are getting so well-aligned with the investor's requirements (Table 3, D2, C1ghi) and venture's prospects (Table 3, C1jkl) that 'Trust & Promise Engineering' becomes a byproduct of the system's architecture.
- *The Cybernetic Pivot:* Central to the viability of the modern startup is its ability to sense and respond to 'Path Dependencies' (Table 3, C1/5/D6i). By positioning Slot i as the system's Metabolic Sensor, we have integrated cybernetic feedback loops (CL0:operative, CL1:tactical, and CL2:strategic) into the core of the business logic. This allows the venture builder or startup studio to 'pivot the process' without collapsing the 'mission,' ensuring that the venture's 'Functional Intent' remains decoupled from its physical implementation - a core tenet of Axiomatic Design (Suh, 1995).
- *Toward an Architecture for Canvas Ecosystems (ACE):* The VaaP model represents the first boundary-object-type heuristic to be implemented as an Architecture for Canvas Ecosystems (ACE) prototype. In this exemplification, the venture is no longer just a vehicle for a product; it is a 'productized venture' that can be scaled, pivoted, or divested with clinical precision. This shift addresses the 'Sisyphus' cycle of repetitive knowledge waste identified in early-stage ecosystems, offering instead a modular, scalable framework for 'Trust Engineering'.

The goal of the VaaP 12-Slot-Scale is to empower founders to navigate the 'uphill battle' of venture complexity while offering investors a transparent, high-fidelity view of risk and return. By balancing the requirements of a sustainable future with the hard metrics of financial backing, the model ensures that the ventures of tomorrow are built on a foundation of 'Scalable Integrity' (Table 3/4i). This research offers not just a tool, but a diagnostic and predictive navigation system for the sustainable future of venture building. It also offers a proof of concept to commence with ACE-type boundary-object-applications in other domains as the future trajectory of this research.

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Ethics Declaration

No ethical clearance for the research was necessary.

AI Declaration

As AI tools are increasingly used by reviewers, I applied Gemini to also check my completed submission to confirm that my proposed solutions are indeed novel in the context of academic research as well as professional applications. To the best of my knowledge, after verifying the AI-generated results, this approach has not been previously pursued in academic or commercial realms.

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