



LAPIN YLIOPISTO
UNIVERSITY OF LAPLAND

Evan Palmejar

**THE ROLE OF SERVICE BLUEPRINTING IN ACCELERATING
TIME-TO-MARKET IN THE VENTURE BUILDING PROCESS**

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ABSTRACT

This thesis explores how service blueprinting accelerates time-to-market in the venture building process. Venture building studios and independent founders face persistent challenges in translating business ideas into market-ready offerings quickly and with confidence. Service blueprinting, a visualization technique from service design, maps service ecosystems across frontstage, backstage, and support layers, offering a potential mechanism for addressing these challenges. Drawing on the Theory of Constraints, New Service Development frameworks, and service design theory, this study examines specific pathways through which service blueprinting influences venture development speed.

Seven semi-structured interviews were conducted with venture building practitioners across diverse contexts, including venture building studios, corporate innovation units, and deep-tech commercialization labs. Data were analyzed using a hybrid deductive-inductive thematic approach, producing eight a priori code families, nine inductive codes, and six thematic clusters describing how service blueprints function across venture contexts.

The findings reveal that service blueprints accelerate time-to-market through three primary mechanisms: structural clarity, which translates abstract concepts into concrete processes; preventative decision-making, which enables teams to pivot on paper before committing resources; and coordination compression, which reduces misalignment across cross-functional teams. However, blueprinting delivers the greatest value when ventures involve multiple stakeholders or complex service ecosystems. The study identifies a tension between the structure blueprints provide and the agility ventures require, suggesting that effective implementation depends on treating blueprints as living tools rather than fixed documentation.

Keywords: service blueprinting, time-to-market, venture building, venture studio, Theory of Constraints, New Service Development, service design, qualitative research

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ABBREVIATIONS

AI	Artificial Intelligence
DSR	Design Science Research
MVP	Minimum Viable Product
NSD	New Service Development
QDA	Qualitative Data Analysis
SDSI	Service Design Strategies and Innovations
ToC	Theory of Constraints
TTM	Time-to-Market
WIP	Work-in-Process

1. INTRODUCTION

1.1 Background of the Research

Launching a new venture is a process filled with uncertainty. The path from a promising business idea to a product in the market is full of pivotal decisions, resource constraints, and the constant pressure of time. With the rapid pace of technological development and the democratised access to tools for product development to customer acquisition, entrepreneurs and venture building studios face the critical challenge of moving quickly from concept to market without sacrificing the validation needed to ensure product-market fit. This tension between speed and certainty sits at the core of modern entrepreneurship (Blank, 2006; Ries, 2011). This thesis investigates this tension specifically through the lens of service design, examining how a core service design tool can address challenges that conventional management frameworks alone have not resolved.

The venture building process, whether conducted within a formal venture building studio or by independent founders, involves numerous interconnected activities. Teams must validate customer problems, design viable solutions, build the operational infrastructure, and coordinate across multiple functions simultaneously. Traditional product development approaches often treat these activities sequentially, which then lead to delays and bottlenecks. However, the increasing adoption of lean startup methodologies has shifted thinking toward parallel, iterative exploration (Blank, 2013). Despite these advances, many ventures still struggle with the lack of clarity during handoffs between functions, the duplication of unnecessary tasks, and unclear dependencies between these activities.

Service blueprinting offers itself as an approach for potentially addressing these problems. Originally developed by Shostack (1984, 1987), a service blueprint is a visualization technique that maps the entire system of service delivery across three critical dimensions. This includes the customer's interactions (referred to as the frontstage), the direct support staff actions (referred to as the backstage), and the supporting processes and systems that enable delivery (referred to as the support layer). In recent years, scholars have expanded service blueprinting beyond traditional services to encompass complex service ecosystems (Bitner et al., 2008; Patrício et al., 2018). This expanded view makes service blueprinting potentially valuable for venture teams navigating the complexity of launching new products and services.

Yet despite growing interest in service design methodologies, little is known about how or whether service blueprinting actually accelerates the timeline for building a venture (Moiana et al., 2025; Spiegel et al., 2023). The assumption that visualization tools improve execution speed remains largely untested in the venture building context. This research gap motivated the current study, and understanding whether and how service blueprints can reduce the time it takes to launch a venture into the market has practical implications for venture studios, accelerators, and independent entrepreneurs seeking to optimize their development processes.

1.2 Research Motivation

The motivation for this research emerged from two converging observations. First, the time it takes to launch an idea into a business in the market has become increasingly central to competitive success in the technology and innovation sectors. Ventures that reach customers first often establish market positions that are difficult for later entrants to displace. This urgency creates intense pressure on entrepreneurs and venture building teams to move quickly while remaining thoughtful about the decisions that will shape the venture's trajectory. The emergence of AI-enabled software development tools has also democratized the product development process, further amplifying the importance of speed in the venture building process. The question of how to balance this speed with reflection is no longer merely academic, it is fundamental to the survival of a venture (Camuffo et al., 2020).

Second, the venture building studio model has gained significant traction in recent years as a structured approach to venture creation. Unlike traditional venture capital, which funds individual entrepreneurs and founding teams, venture studios employ internal teams that work across multiple ventures simultaneously, often providing shared resources, mentorship, and operational support. This model raises new questions about how work is coordinated across ventures and how standardized processes might improve outcomes. Service blueprinting, with its emphasis on clarity about roles, handoffs, and dependencies, seems like a natural fit for this context. Yet practitioners have adopted blueprinting more through intuition than through evidence (Estañol et al., 2017).

My personal motivation stems from observing talented entrepreneurs become frustrated when unclear processes create delays and lead to unnecessary or duplicated work. Time lost to miscommunication or forgotten tasks is time that could have been invested in customer

conversations or solution improvements. If a relatively simple visualization tool could reduce these inefficiencies, it would be worth understanding in depth.

The timing of this research is also relevant because of the accelerated adoption of digital tools and AI-enabled platforms democratizing the software development process, and the openness of teams for remote collaboration, making the clarity offered by service blueprints even more valuable. Furthermore, the growing complexity of modern ventures, involving multiple stakeholders, distributed teams, and intricate technical dependencies, suggests that visualization tools could deliver significant returns. Investors and venture building studio leaders have begun asking these questions, indicating practical demand for this research.

1.3 Research Goals and Research Questions

The overarching goal of this research is to understand whether and how service blueprints influence the time it takes for a venture to be launched into the market. More specifically, this study aims to identify the mechanisms through which service blueprinting might accelerate the venture building process, the conditions under which these benefits are most pronounced, and the potential limitations or challenges that practitioners encounter when using service blueprints.

The primary research question guiding this work asks “**How does a service blueprint accelerate the time-to-market of the venture-building process?**” This question is intentionally broad, reflecting the exploratory nature of this research. This research seeks to understand the phenomenon from practitioners' perspectives.

Underlying this primary question are five sub-questions that structure the investigation.

1. How do practitioners currently conceptualize time-to-market in venture building, and what factors do they perceive as most critical to moving quickly? Understanding this helps establish what "acceleration" actually means in context and which metrics matter most.
2. In what ways do service blueprints clarify work, reduce ambiguity, or prevent rework in venture building? This question targets the specific mechanisms that might drive improvements in terms of speed.

3. At what stages of the venture-building process is service blueprinting most valuable, and where does it add less value? This helps move beyond broad claims to more nuanced understanding.
4. What barriers or challenges prevent venture teams from using service blueprints effectively, and how might these be addressed?
5. How does service blueprinting relate to other frameworks and methodologies that ventures already use, such as lean startup approaches or business model canvases?

These research questions reflect a pragmatist philosophy that values practical outcomes. Beyond the contribution to service design theory, one of the goals of this research is to produce insights that will genuinely help entrepreneurs and venture building teams to move faster and with greater confidence. This emphasis on utility shapes both the research approach and the way findings are presented.

1.4 Research Scope and Limitations

Several key terms require clear definition to ensure consistent understanding throughout this thesis. These terms appear frequently in the text and anchor the conceptual framework.

A **service blueprint** is a visualization that maps the entire system of service delivery by showing the customer's journey (the frontstage experience), the actions of service personnel and direct service delivery staff (the backstage), the support processes required to enable service (the support layer), and the physical and technological evidence customers encounter along the way. Service blueprints depart from simple process maps by explicitly distinguishing between what customers see and do versus what happens behind the scenes, and by mapping the interconnections between these layers. The service blueprint format, originating with Shostack (1984, 1987), has evolved significantly, and contemporary interpretations include emotional dimensions, failure points, and service ecosystems that extend beyond single organizations (Bitner et al., 2008; Patrício et al., 2018).

Time-to-market (TTM) in this context refers to the elapsed time from the ideation of the initial concept through to a venture's first paid customer or market entry. Time-to-market is not measured solely by calendar time but is understood more holistically by practitioners to include the intensity and efficiency of the work done during that period. A venture that is

launched into the market in six months with a clear development path and high team confidence differs meaningfully from one that reaches the market in six months amid confusion and rework. This study prioritizes practitioners' qualitative assessments of temporal dynamics over quantitative time-to-market metrics.

Venture building (sometimes called venture creation, venture development, or entrepreneurship) is the comprehensive process of transforming a business idea into an operating company. Venture building encompasses idea validation, team formation, business model development, product and/or service design, operational setup, funding, and market launch. In the venture studio context, venture building is a deliberate, systematic, and supported process where teams work across multiple ventures sequentially or in parallel, often applying structured methodologies to improve outcomes (Blank, 2006).

The **Theory of Constraints**, introduced by Goldratt (1984, 1990, 1997), proposes that every system contains at least one constraint that is limiting its performance. Instead of attempting general improvements everywhere, the theory of constraints focuses on identifying and relieving specific constraints. In venture building, these constraints might include bottlenecks in regulatory approvals, dependencies between teams, or unclear decision-making processes. Service blueprints can help identify these constraints by making the workflows visible.

New Service Development refers to the process used by organizations to develop and launch new service offerings. This process is typically done in stages, with each stage separated by a decision point. Extensive research has documented new service development processes, identifying critical factors that lead to success and common modes that have led to failure (de Jong & Vermeulen, 2003; Johnson et al., 2000). New service development frameworks typically include stages such as ideation, concept development, business case analysis, service design, testing, and commercialization. Venture building can be understood as a specialized form of New Service Development that applies to new ventures rather than established organizations adding new services.

The **fuzzy front end** refers to the earliest and the most uncertain phase of building a new venture or developing a new product or service. The fuzzy front end has been attributed to the research of Cornelius Herstatt and Birgit Verworn (Herstatt & Verworn, 2004), it is during this phase that customer needs are often poorly understood, technical feasibility is

unclear, and the venture's fundamental direction remains undecided (Blank, 2006; Ries, 2011). The fuzzy front end is widely known to be difficult to manage because conventional metrics and milestones are not applicable. However, the decisions made during the fuzzy front end often determine whether subsequent development is efficient or whether rework and pivoting will be necessary. Service blueprinting may help founders and venture teams navigate the fuzzy front end by clarifying any assumptions and identifying any dependencies during this highly uncertain stage of the venture building process.

A **boundary object** is a concept from organizational sociology that refers to a tool, representation, or artifact that facilitates communication between groups that have different perspectives or expertise (Star & Griesemer, 1989). Boundary objects allow specialists to maintain their unique perspectives while coordinating with others toward shared goals. Service blueprints act as boundary objects because of how they allow people with different expertise such as marketers, engineers, designers, and operations staff to view a venture through a common visual language while still being able to preserve their specialized knowledge.

Several important limitations shape the scope and applicability of this research. The study draws on data from seven semi-structured interviews with practitioners in venture building. The practitioners interviewed were largely self-selected and the majority have had no experience of using a service blueprint. The research does not include quantitative measurements of time-to-market; instead, it relies on practitioners' qualitative assessments, which are subject to recall bias and selective interpretation. Additionally, the practitioners interviewed were concentrated in specific geographic regions (primarily Northern Europe) and represented ventures in particular industries (primarily technology and digital services). These findings may not transfer directly to other geographic contexts or industries with fundamentally different development processes, such as biotechnology, manufacturing, or capital-intensive sectors. Finally, this research examines service blueprinting in isolation; the interaction between service blueprinting and other methodologies (such as lean startup or agile development) is addressed only secondarily. Understanding these limitations is essential for interpreting the study's findings appropriately.

This research uses a qualitative approach aligned with pragmatist philosophy. This pragmatist philosophy emphasizes understanding phenomena as they manifest in real-world contexts and valuing research outcomes based on their utility and actionability (Creswell &

Creswell, 2018). The research question asks "how" a process unfolds, which directs attention toward understanding the mechanisms and the context rather than testing causal hypotheses or measuring effects quantitatively.

Data collection involved seven semi-structured interviews with practitioners who have experience in venture building. Semi-structured interviews allow participants to describe their experiences in their own terms while ensuring consistent coverage of key topics across the interviews. These interviews ranged from 45 to 90 minutes and were conducted through video calls. Participants were recruited through professional networks and through a screening survey that allowed me to gauge their interest and understanding in the topic. Interview protocols covered participants' approaches to venture building, their experience with service blueprinting (whether formal service blueprints or similar visualization practices), perceived impacts on development timelines and team coordination, and challenges encountered when implementing such tools.

The data analysis followed a hybrid deductive-inductive approach. Deductive analysis began with eight a priori code families derived from the research literature and theoretical frameworks, including codes related to the Theory of Constraints, New Service Development stages, boundary objects, time and scheduling, team coordination, and clarity. These a priori codes provided conceptual anchors while remaining open to data-driven refinement. Inductive analysis allowed nine emergent codes to develop from the data itself, capturing patterns and practitioner terminology that was not anticipated from the literature. These codes included concepts such as "assumptive clarity," "stakeholder coherence," and "iteration pacing." The combination of deductive and inductive coding reflected the research's balanced approach to theory and to the lived experiences of practitioners.

The deductive and inductive codes were organized into six thematic clusters representing interpretations of how service blueprinting influences the venture building process. These thematic clusters form the backbone of the study's findings and are discussed in detail in the Results and Findings chapter. The thematic clusters are: blueprint as architectural scaffolding, preventative pivoting and early detection, cross-functional alignment engine, stage-gated venture progression, business model and operations bridge, and perceived outcomes and tensions.

Throughout the analysis, careful attention was given to disconfirming evidence and alternative interpretations. These includes cases where service blueprinting did not deliver expected benefits, and situations where practitioners abandoned service blueprinting or modified it substantially. By examining the full complexity of the lived experiences of practitioners, it resulted in a more balanced and credible understanding of service blueprinting and going beyond the process of confirming the theoretical value of service blueprinting.

1.5 Thesis Structure Overview

The structure of this thesis begins with this chapter providing an introduction of the research question and the topic for investigation. the Literature Review presents a comprehensive literature review across three domains: service design and service blueprinting, entrepreneurship and venture development, and the intersection of service design with entrepreneurial activity. This chapter establishes the theoretical foundation for understanding both service blueprinting and the venture building process. It also identifies the specific gaps in the literature that this research aims to address.

The Research Design chapter details the methodology and research design, covering the research philosophy, strategy, data collection, analysis approach, ethical considerations, and study limitations. The Results and Findings chapter then presents the findings from the seven semi-structured interviews organized around the six thematic clusters identified during the data analysis. This chapter focuses on the perspectives and experiences of practitioners, ensuring that they are grounded in their own language and contexts. the Results and Findings chapter also details the complexity and nuance of the views of the different practitioners.

The Discussion and Implication chapter discusses the findings in relation to the literature and to the research questions highlighted in this introduction. This chapter synthesizes the empirical insights with existing theory, examines how the study's findings extend or challenge current understanding, and explores the implications for both service design research and venture building practice.

The Conclusion chapter concludes the thesis by addressing how service blueprinting accelerates time-to-market in venture building, the conditions that enable this acceleration, and the limitations that practitioners should understand. This chapter also identifies priorities

for future research and offers recommendations for venture building studios, practitioners, and service design educators seeking to integrate service blueprinting into their work.

Throughout this thesis, the emphasis is on clarity, practical applicability, and respect for the complexity that practitioners navigate on a daily basis. The research does not offer a one-size-fits-all prescription for using service blueprints in venture building. Rather, it aims to highlight how thoughtful visualization and the explicit mapping of roles and dependencies can help entrepreneurs and venture building teams move more effectively toward entering the market. By grounding insights in the experiences of real practitioners and by understanding both the benefits and limitations of service blueprinting, this research contributes to a nuanced understanding of how service design can strengthen entrepreneurial processes.

1.6 Ethical Considerations

This research adheres to ethical principles outlined in the Finnish National Board on Research Integrity guidelines and the University of Lapland's research ethics protocols. Informed consent was obtained from all participants before interviews began. Each participant received a consent form explaining the research purpose, how data would be collected and stored, how confidentiality would be protected, and their right to withdraw from the study at any time without penalty. Participants signed and dated the consent form, and a copy was provided to them. Signed forms are stored separately from transcripts to protect anonymity.

Data security was prioritized throughout the research. Interview recordings and transcripts are stored in encrypted files on a secure, password-protected device. Access is restricted to the researcher. At the end of the research period, recordings will be deleted; transcripts will be retained in anonymized form for a period of five years to allow for possible secondary analysis or verification. Participant names and identifying information have been removed from transcripts; only numbered participant labels are used.

Participants retain the right to withdraw from the study at any time. They were informed of this right before the interview and could indicate withdrawal by contacting the researcher by email. No withdrawal requests were received.

The author also sought out interviewees with diverse views, including those skeptical of blueprinting, to intentionally challenge confirmation bias.

2. LITERATURE REVIEW

2.1 Service Blueprinting: Origins, Evolution, and Contemporary Practice

Service blueprinting emerged in the early 1980s as a response to a challenge in service management. The challenge revolved around how service organizations can visualize and design an inherently intangible process. Shostack (1984, 1987), the originator of the method, recognized that service organizations lacked basic visualization tools comparable to those available in manufacturing and product design. For manufacturers, they could draw blueprints of physical goods. However, service organizations had only narrative descriptions and informal mental models to guide their decisions when it comes to designing and delivering their services. Shostack introduced the concept of creating a visual map showing what customers experience, what staff do to support that experience, and what systems or processes operate invisibly in the background to enable service delivery.

The original service blueprint format included three critical lines. The line of interaction which marked the direct contact between the customer and the service provider. The line of visibility which separated what customers could see from what they could not see, which was referred to as the backstage operations. The line of internal interaction which marked the boundary between the direct, customer-facing service staff and supporting functions like accounting, human resources, or technology infrastructure, who were typically hidden from the customer's experience. By mapping these three dimensions simultaneously, service blueprints revealed the entire ecosystem of service delivery in a single diagram. This visual structure prevented the isolation that service organizations often dealt with, where front-line staff had limited awareness of backend operations, and support functions did not understand customer-facing realities.

Throughout the years, service blueprinting has evolved from a specialized tool used primarily in hospitality and telecommunications toward a more flexible and widely applicable method. Bitner et al. (2008), building on multi-interface service design research (Patrício et al., 2008), refined the theoretical foundations and practical applications of blueprinting, demonstrating its value not only for service design but for service innovation more broadly. Their work emphasized service blueprinting's potential to reveal failure points, moments where service delivery was likely to break down, and to integrate emotional dimensions alongside functional processes. This refinement recognized that understanding

where customers felt disappointed or delighted was as important as mapping the sequences of certain tasks.

The concept of “upframing” service design introduced by Patrício et al. (2018; see also Patrício & Fisk, 2013) proposed that service blueprints could operate at multiple scales simultaneously. Beyond mapping a single service transaction, upframed blueprints could reveal service ecosystems spanning multiple organizations, multiple customer touchpoints, and extended timescales. This evolution positioned service blueprinting as more than a design tool. It has evolved to become a mechanism for understanding systemic relationships and interdependencies that go beyond traditional organizational boundaries. The implications for venture building meant that a service blueprint could capture not only the internal work of the founding team but also the interconnections with investors, advisors, regulatory bodies, and early customers. Recent scholarship has further extended blueprinting into digital service ecosystems and platform-based business models (Beverungen et al., 2019; Joly et al., 2019), reinforcing its applicability beyond traditional service delivery contexts.

Modern practices have demonstrated service blueprinting's flexibility across diverse contexts. In software development, service blueprints can be used to map user journeys alongside technical infrastructure and internal team workflows. In healthcare innovation, they are being used to reveal how patient experiences connect to clinician processes and organizational systems. In venture building, service blueprints have supported teams in clarifying how market research, product development, funding campaigns, and team formation activities connect with each other across various stages. The common thread across these applications is that service blueprints function as boundary objects, visual representations that allow different domain specialists to maintain their expertise while coordinating toward shared goals (Star & Griesemer, 1989). Engineers, designers, marketers, operations staff, and founders can each view the service blueprint through their own lens while also understanding how their work connects to the contributions of others.

The value of service blueprinting as a boundary object becomes more evident in organizations with distributed teams or complex stakeholder environments. When team members work remotely or when ventures span multiple locations, shared service blueprints allow for a common reference point that reduces misunderstanding amongst members and avoids any duplicated effort. The service blueprint becomes a living document that evolves

as the venture moves through the different development stages, capturing revised assumptions and discovering new dependencies. This dynamic quality distinguishes effective service blueprinting from static process documentation, turning service blueprints into active coordination mechanisms rather than passive assets.

It is important to situate service blueprinting within the broader discipline of service design. Service design is a human-centered, systems-oriented approach to designing and improving services that integrates tools from design thinking, ethnography, and operations management (Stickdorn et al., 2018). Service blueprinting is one of service design's core methods, but it exists alongside other tools such as customer journey mapping, stakeholder mapping, and service prototyping. What distinguishes service design from conventional management approaches is its emphasis on visualization, co-creation, and the integration of user experience with organizational capability. Sangiorgi and Prendiville (2017; see also Ostrom et al., 2015) argue that service design research has matured from a focus on individual tools toward understanding how design capabilities transform organizational practice. This broader framing matters for this thesis because the value of service blueprinting in venture building may derive not only from the blueprint artifact itself but from the service design thinking that underlies its creation: the discipline of making systems visible, centering customer experience, and coordinating across organizational boundaries through shared visual representations.

2.2 The Theory of Constraints and Process Optimization

The Theory of Constraints, developed by Goldratt (1984, 1990, 1997), provides a diagnostic framework for understanding and improving system performance. The Theory of Constraints focuses on the concept that every system, no matter how complex, contains at least one constraint that limits overall performance. A constraint is not a problem to be fixed through general improvements. A constraint is a bottleneck where the throughput narrows and the wait time accumulates. The critical managerial question is not how to improve everything everywhere, but rather how to identify and strategically relieve the system's most restrictive constraint.

Goldratt's framework operates through five steps. First, identify the system's constraint, the one factor limiting overall throughput. Second, decide how to exploit the constraint, extract maximum value from the current bottleneck without any major investment. Third,

subordinate all other activities to support constraint relief, align the entire system around breaking the bottleneck instead of optimizing non-critical functions. Fourth, elevate the constraint, if previous steps prove insufficient, invest to expand constraint capacity. Fifth, once a constraint is broken, repeat the cycle by identifying the new constraint that has emerged. This iterative approach prevents organizations from focusing too much in local optimizations that yield no system-wide improvement.

The Theory of Constraint's diagnostic strength emerges from its explicit attention to throughput, work-in-process (WIP), and operating expense. Throughput is defined as the rate at which the system generates valuable output, work-in-process represents partially completed work waiting for processing, and operating expense is defined as the cost to keep the system running. Most managers focus heavily on reducing operating expense, but the Theory of Constraints recognizes that reducing work-in-process and increasing throughput often matter more for overall performance. Homer (1998) extended the Theory of Constraints into dynamic contexts by studying how fluctuations in the work-in-process affect system stability. His research demonstrated that high amount of work-in-process creates delays, masks problems, and leads to rework. Conversely, limiting work-in-process surfaces issues quickly, allowing them to be addressed before cascading to other parts of the system.

Service blueprints operationalize the thinking around the Theory of Constraints by making these constraints visible. In a traditional venture building process, bottlenecks often remain hidden. A team might report that development is slow without understanding why, the true constraint might be unclear decision authority, missing customer feedback, or dependencies on external stakeholders. A well-constructed service blueprint reveals where the work is accumulating, which handoffs are creating delays, and where the critical decisions must be made. By visualizing these points, service blueprints help teams apply the disciplined focusing steps as mentioned in the Theory of Constraints - identify the constraint precisely, focus improvement efforts on that single point, and verify that the overall system throughput actually improves before investing further optimization effort elsewhere.

In the context of venture building, there are numerous parallel activities involved such as fundraising, product and service development, market research, team hiring, and operational setup, among many others. All of these activities must be coordinated with imperfect information. Without clarity about what constrains overall progress, teams often apply effort

uniformly across all activities, resulting in expensive, scattered improvement efforts. A service blueprint that clearly shows these interdependencies helps teams recognize that one activity might be the constraint limiting another activity. For example, fundraising timelines might be limiting operational setup, or the lack of regulatory clarity might be the constraint limiting a product launch. Once the true constraint is identified, the team can subordinate other activities to relieve certain limiting issues, allocating effort toward the bottleneck rather than distributing it across less critical activities.

2.3 New Service Development and Stage-Gated Progression

New service development research has accumulated extensive empirical evidence about how service organizations bring new offerings to market successfully. Johnson et al. (2000) synthesized early new service development research into a comprehensive framework identifying the critical factors for success and the common modes that led to failure across diverse service industries. Their work established that successful new service development follows distinct stages, each with certain tasks and decision criteria. Subsequent meta-analyses by de Jong and Vermeulen (2003) confirmed the centrality of stage-gate thinking in new service development. However, they did note significant variation in how organizations implemented stage-gate discipline.

The classical new service development framework progresses through stages such as ideation and concept development, business case analysis and feasibility assessment, detailed service design and prototype development, testing and piloting in controlled environments, operational scaling, and full commercialization and market launch. At each stage gate, the organization faces a go or no-go decision. Proceeding to the next stage commits resources and narrows flexibility; stopping or recycling acknowledges that insufficient evidence is available to justify advancing further. This gating discipline prevents organizations from investing heavily in developing services for which the market demand is weak or the operational feasibility is questionable.

Modern perspectives around new service development are increasingly adopting hybrid models that blend stage-gate structure with iterative, cyclic learning. Instead of a pure waterfall progression through rigid stages, contemporary new service development incorporates feedback loops and parallel exploration. Teams can advance key assumptions to the next stage while cycling through learning on other dimensions. This hybrid approach

reflects recognition that service innovation, like product innovation, benefits from rapid iteration and customer feedback. The venture building process aligns naturally with this hybrid model. Ventures must progress through key milestones, such as seed funding, customer acquisition, product-market fit validation, or operational scaling, while continuously cycling through learning and experimentation within each milestone. Recent NSD research has confirmed the continued relevance of stage-gated progression while noting that contemporary service innovation increasingly involves iterative cycles within stages rather than strictly linear advancement (Antons & Breidbach, 2018; Carlborg et al., 2014).

Ojasalo and Ojasalo (2015) developed the concept of service logic business models, arguing that successful new service development requires alignment among value creation logic, referring to what customers will receive, value delivery logic, referring to how the service will reach customers, and value capture logic referring to how the organization will fund the effort. When these three dimensions align, new service development processes become more efficient. However, when they are not aligned, operational friction and rework tend to accumulate. An example of this can be when a business model assumes rapid scaling but the service delivery infrastructure is labor-intensive. Service blueprints explicitly map these three dimensions simultaneously, showing what value is delivered referring to the customer experience at each touchpoint, how that value is delivered referring to the staff actions and technology systems enabling it, and the resource intensity of delivery referring to the cost structure reflected in staffing requirements and systems investment. This explicit alignment prevents the situation where marketing promises scalability that operations cannot deliver, or where funding structures assume cost structures incompatible with the service design.

The venture building process essentially operates as a specialized form of new service development applied to new ventures rather than new services within established organizations. Ventures must validate customer need (concept development), prove market demand exists at sufficient scale (business case analysis), design a viable operating model (service design), test that model with early customers (piloting), and then scale (commercialization). The stage-gate framework provides valuable structure for this process. However, there are differences between ventures and established organizations in how they integrate new services. Ventures must simultaneously address team building, founding equity structures, funding, and product development, while operating under greater

uncertainty about customer demand and market conditions unlike established organizations. These differences mean that stage-gate discipline, while valuable, must be balanced with the need for rapid learning and flexibility. Service blueprints support this balance by clarifying the definitions and decision criteria for each stage, while remaining open to iteration across the various stages.

2.4 The Fuzzy Front End of Innovation

The "fuzzy front end" describes the earliest and the most uncertain phase of a new venture or product. Blank (2006, 2013) and Ries (2011) brought extensive attention to this phase in their treatments of lean startup methodology. They emphasized that the fuzzy front end is where fundamental decisions about strategic direction, market focus, and value proposition are made during high levels of uncertainty. During this phase, customer needs are poorly understood, technical feasibility may be unproven, the venture's fundamental direction remains undecided, and the metrics and conventional project management approaches used to evaluate progress in later stages are not yet applicable.

At this phase, a venture team cannot accurately estimate the time it will take for customer discovery or the level of product fidelity required to validate a market. Alternatively, traditional stage-gate discipline when applied too rigidly ends up creating pressure that locks in requirements prematurely or ends up advancing to the development stages before arriving at any meaningful customer and market insight. However, the teams that continue to operate in the fuzzy front end for a longer period of time, focusing too much on continuously learning without making forward progress toward minimum viable product or service that they can test ultimately end up wasting their time and resources.

Research on innovation failure repeatedly identifies the ambiguity of the fuzzy front end as a critical risk factor. When teams move through from the fuzzy front end having made insufficient efforts to validate customer needs or having validated the wrong customer segment, development in the later stages becomes filled with rework and pivoting. However, ventures that deliberately invest in gaining clarity while operating in the fuzzy front end, focusing on deep customer understanding and market validation, move through later development stages with greater efficiency. The challenge revolves around creating enough structure while still preserving the learning mindset that is essential for teams to navigate through uncertainty. Recent empirical work has further demonstrated that structured

uncertainty management in the front end significantly reduces development time and increases market success rates (Eling & Herstatt, 2017).

Service blueprinting addresses this challenge by enabling structure without prematurely committing considerable resources. Even while operating in the fuzzy front end, a team might use a service blueprint for its customer discovery process, ensuring that customer interactions are explicitly identified, information is actively being gathered, defined assumptions are being tested, and findings are specifically tied toward product development. Using this service blueprint helps the team clarify their strategy for navigating uncertainty in the venture-building process rather than pursuing customer discovery in ad hoc fashion. In this case, the service blueprint creates a shared understanding of how systematic learning occurs. Similarly, a blueprint of the proposed service can identify critical interdependencies and decision points that must be resolved before later stages can proceed efficiently.

The connection between blueprinting and the management of the fuzzy front end reflects a broader principle. This principle highlights that structure in the right dimensions, such as clarity about roles, dependencies, decision points, can coexist with flexibility in other dimensions, such as open assumptions, iterative learning, and evolving specifications. Ventures that maintain explicit blueprints of their development process itself, not just their product or service, will benefit from clearer handoffs between the discovery and design phases, will allow for more deliberate integration of customer learning into product and service decisions, and enable for more rapid recognition when assumptions prove invalid and pivoting becomes necessary. By preventing ambiguity to be diffused in the process, service blueprints can accelerate the transition from uncertainty to clarity, allowing ventures to move toward stages with higher development velocity once the foundational questions are answered.

2.5 Synthesizing the Frameworks: Blueprinting as an Accelerative Mechanism

The previous sections have examined four distinct frameworks, service blueprinting, the Theory of Constraints, New Service Development, and fuzzy front end management, as separate domains. The central claim of this thesis is that these frameworks integrate meaningfully in the venture building context, with service blueprinting serving as the integrating mechanism that makes the others actionable. This synthesis emerges when blueprinting is understood not as a single tool applied at a single stage, but as an evolving

framework applied throughout venture development. This integrative function aligns with emerging research on service design as a capability for managing complexity in multi-stakeholder innovation contexts (Wetter-Edman et al., 2014; Yu & Sangiorgi, 2018).

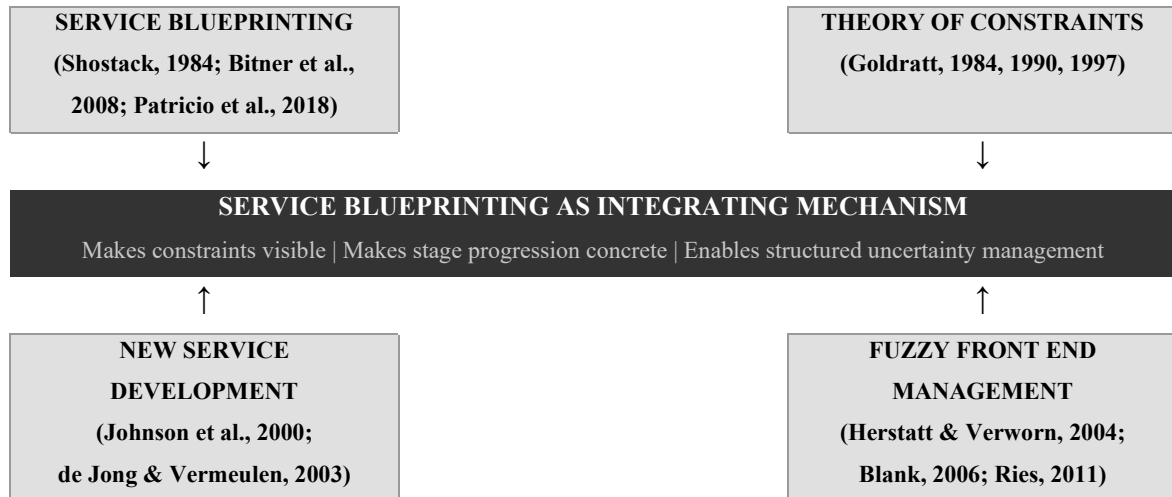


Figure 1. Theoretical framework synthesis showing how four frameworks integrate through service blueprinting

Figure 1 illustrates how the four frameworks integrate through service blueprinting. The downward arrows from service blueprinting and the Theory of Constraints toward the integrating mechanism show how blueprinting makes constraints visible. The upward arrows from New Service Development and Fuzzy Front End Management show how blueprinting makes stage progression concrete and enables structured uncertainty management, with the latter referring specifically to the process of managing ambiguity during the earliest phases of the venture-building process.

The Theory of Constraints provides the diagnostic logic that every venture development process contains constraints limiting overall throughput. The fundamental challenge is identifying those constraints precisely and directing effort toward relieving them rather than distributing effort uniformly across all activities. Service blueprinting operationalizes this logic by visualizing the entire system of venture development, revealing where work accumulates, where dependencies create bottlenecks, and where critical decisions must be made. By mapping interdependencies explicitly, service blueprints transform the abstract notion of "constraints" into visible, specific bottlenecks that teams can address directly.

New Service Development provides the procedural structure presenting how ventures progress through recognizable stages, each with their own distinct tasks and decision criteria. By ensuring discipline through each stage-gate, premature scaling can be prevented while also ensuring that each stage is built on adequate foundation from previous stages. However, stage-gate thinking alone can feel abstract. Teams would need concrete understanding of what progress means at each stage and how to recognize when sufficient learning has been accumulated enough to advance to the next stage. Service blueprints make this stage progression concrete by specifying what activities must occur at each stage, what information must be gathered, what decisions must be made, and how findings from one stage inform the next stage's approach.

The fuzzy front end is one of the primary challenges in the venture building process. It argues how teams can create structure without leading to ideas being prematurely locked in. Service blueprinting addresses this by enabling teams to be explicit about their level of uncertainty. A service blueprint for the fuzzy front end might show a customer discovery process with specific planned interactions, identified assumptions to be tested, and clear criteria for what findings will trigger design changes or validation of the go-to-market strategy. This approach maintains learning orientation, the service blueprint itself is provisional, subject to revision as evidence accumulates, while preventing the unstructured, inefficient exploration that characterizes poorly managed fuzzy front ends.

The synthesis of these frameworks yields an integrated model of how service blueprinting accelerates venture building. Service blueprinting creates shared mental models across the founding team and extended stakeholders such as investors, mentors, and early employees. When all parties understand the venture's current stage, the critical constraints being addressed, the decisions required before advancement, and the dependencies between various workstreams, coordination becomes more efficient. Rework diminishes because handoffs are explicit and dependencies are visible. Decisions accelerate because the criteria for choosing between alternatives becomes clear. Iteration becomes more purposeful because the service blueprint clarifies which assumptions require rapid testing and which decisions can be made with available information.

Furthermore, service blueprinting introduces a rhythm and a sense of pacing to venture building. Through the process of visualizing stage boundaries and identifying critical decision points, service blueprints help teams recognize what must happen before the next

stage can begin. Instead of continuous low-level activity spread across many domains simultaneously, service blueprinting enables sequenced periods of focused effort on specific domains or decision points, with clear transitions between these periods. This approach prevents the diffused, low-productivity state that characterizes many ventures, where effort is spread thinly across numerous activities and no single domain receives sufficient focus to drive meaningful progress.

While service design literature extensively documents service blueprinting as a valuable tool for service organizations, and while management literature extensively documents the Theory of Constraints and New Service Development as effective frameworks, the specific question of how service blueprinting accelerates the time-to-market in the venture building context remains largely unexamined. Recent venture building research confirms this gap from the other direction: Moiana et al. (2025) note that academic literature on venture builders remains limited, with challenges in theoretical conceptualization and concrete applications within entrepreneurial ecosystems. Spiegel et al. (2023), in one of the few studies applying design science methodology to venture building, demonstrate the potential for design-oriented approaches in this domain but do not address service blueprinting specifically. The theoretical rationale presents that service blueprinting should reduce ambiguity, clarify interdependencies, facilitate coordination, and enable faster constraint identification and relief. However, the empirical evidence from practitioners' direct experience with service blueprinting in venture contexts is limited. This thesis contributes by examining how venture builders themselves experience the impacts of service blueprinting, identifying the specific mechanisms through which service blueprints influence development timelines, and exploring the conditions and limitations that shape service blueprinting's effectiveness in practice.

Understanding this gap is essential because ventures operate under assumptions and constraints distinct from those facing established service organizations. Ventures have minimal historical data about what processes work, must rapidly assemble teams unfamiliar with how others prefer to work, operate under intense uncertainty about what customers want, and face resource constraints that limit tolerance for inefficient processes. These conditions make process clarity simultaneously more valuable and more difficult to achieve. The following chapter explores how practitioners navigate these challenges, examining the

lived experience of venture teams and entrepreneurs in implementing service blueprinting and the observed impacts on their development pace and coordination effectiveness.

2.6 Summary of the Theoretical Framework

This chapter has established a foundation across five key domains:

Service Blueprinting provides the visualization and boundary-object mechanism enabling the shared understanding across specialized domains. Its evolution from a tool for managing traditional services toward a framework for mapping service ecosystems places it in an ideal position in the context of venture building, where multiple stakeholders must coordinate around complex interdependencies.

The Theory of Constraints supplies the diagnostic logic that identifies where system throughput is limited and directs attention toward strategically relieving constraints instead of applying scattered improvement efforts. Service blueprinting operationalizes the logic behind the Theory of Constraints by making these constraints visible.

New Service Development establishes that successful service innovation progresses through recognizable stages with their own distinct tasks and decision criteria. Service blueprinting makes the progression through these stages concrete and visible to all stakeholders.

Fuzzy Front End Management addresses the central challenge of navigating uncertainty without falling into the danger of unstructured exploration. Service blueprinting enables the explicit management of uncertainty through the visualization of how teams learn and test through their assumptions.

Synthesis reveals how these frameworks integrate when service blueprinting is understood as a dynamic coordination tool that evolves throughout the venture building process. Service blueprinting transforms abstract management concepts such as constraints, stage gates, and uncertainty, into visible and actionable representations that enable faster decision-making and more efficient coordination.

The central claim of this thesis is that service blueprinting, when applied thoughtfully throughout the venture building process, can accelerate time-to-market by clarifying interdependencies, making constraints visible, facilitating multi-stakeholder coordination,

and supporting purposeful iteration. The following chapters examine this claim through the direct experiences of various practitioners. These experiences aim to explore how ventures benefit from service blueprinting and what limitations and contextual factors shape the effectiveness of service blueprinting.

3. RESEARCH DESIGN

This chapter outlines the methodological approach used to answer the research question: "How does a service blueprint accelerate the time-to-market of the venture-building process?" The chapter presents the research philosophy, strategy, data collection methods, analysis approach, ethical considerations, and study limitations. Each section explains the rationale for the chosen methods and how they serve the overall research aims.

RESEARCH DESIGN OVERVIEW			
Research Philosophy	Research Strategy	Data Collection	Data Analysis
Pragmatism	Qualitative Multi-Case Study	7 Semi-Structured Interviews	Hybrid Deductive- Inductive Thematic Analysis
Actionable knowledge over theoretical elegance alone	7 practitioners across venture studios, corporate innovation, deep-tech labs	45-60 minutes each Dec 2024 - Mar 2025 Video call format	8 a priori codes 9 inductive codes 6 thematic clusters

↓

OUTPUT: Three-function accelerative model explaining how service blueprints influence time-to-market in venture building

Figure 2. Research design overview

3.1 Research Philosophy: Pragmatism

This study is grounded in pragmatism, a research philosophy that prioritizes actionable knowledge over theoretical elegance alone. Pragmatism asks not only what is true, but what is useful, what works in real practice to solve concrete problems (Gummesson, 2001). This perspective aligns well with service design research, where understanding how practitioners create value matters as much as explaining why value emerges.

Pragmatism supports what researchers call Design Science Research (DSR), an approach that creates and refines artifacts, tools, processes, frameworks, while simultaneously building scientific understanding of how and why those artifacts work (Ojasalo & Ojasalo,

2015). A service blueprint is precisely such an artifact: it is both a practical tool venture builders use every day and a theoretical object worthy of rigorous study. By adopting pragmatism, this research honors both dimensions. The goal is not to develop abstract theory disconnected from practice, nor to merely document what works without understanding the underlying mechanisms.

Kanygin and Koretckaia (2021) position pragmatism as a methodological foundation for service innovation research in particular. They argue that service research must engage with the messiness of real organizational contexts, where solutions are rarely perfect but must be good enough to create value. This thesis embraces that stance. The research seeks to understand how service blueprinting, as a real artifact used by real practitioners, influences venture-building timelines and outcomes.

Pragmatism also allows for mixed theoretical input without requiring a single unified paradigm. This research draws on Theory of Constraints (ToC), New Service Development (NSD) stage-gate models, and service design theory, not because they perfectly align, but because each offers useful explanatory power for different aspects of the phenomenon. The pragmatist stance is that if these frameworks help illuminate how blueprints work, they belong in the analysis.

3.2 Research Strategy: Qualitative Multi-Case Study

A qualitative multi-case study design was chosen to investigate how service blueprinting shapes venture-building timelines. The research question asks "how," which signals a need to understand mechanisms and processes rather than measure variables or predict outcomes. Qualitative research excels at this task: it allows practitioners to explain their experiences in detail, reveals the context in which decisions unfold, and captures nuance that surveys or quantitative metrics would miss (Denzin & Lincoln, 2011).

A multi-case approach strengthens the findings by comparing patterns across different venture-building contexts. Rather than studying a single organization in depth, this study examines seven practitioners working in different settings: venture studios, university-based venture programs, corporate innovation units, and independent ventures. Each case represents a distinct context, different industries (deep tech, sustainability, climate), different geographies (Netherlands, Singapore, Germany, Finland), different organizational

models. By studying multiple cases, the research can identify which findings are local to a specific context and which appear across diverse settings. This approach increases the credibility of claims and provides richer insight into how context shapes the role of service blueprinting.

It is important to clarify what this research is not. This is research *about* design, not research *through* design (Sanders & Stappers, 2012). The study does not involve conducting a design project as part of the research itself. Instead, the researcher collects data about how design artifacts (service blueprints) function in practitioners' work. The primary data source is interviews with practitioners who have direct experience creating, using, or advising on service blueprints in venture contexts. This approach is appropriate when the goal is to understand existing practices and artifacts rather than to create new ones as part of the research process. However, the research approach itself reflects a service design sensibility: it examines how a design artifact functions in practice, attends to the perspectives of multiple stakeholders, and seeks actionable insights rather than testing hypotheses in isolation. This orientation toward practice and artifact aligns with the broader trajectory of service design research, which increasingly examines how design capabilities are deployed in organizational contexts (Sangiorgi & Prendiville, 2017).

The multi-case qualitative study is also suited to exploratory research, where the phenomenon of interest, how blueprints accelerate time-to-market, is not yet fully understood. By allowing practitioners to describe their experiences in their own words, the research can discover patterns and mechanisms that theoretical literature alone might not predict. This is especially important in service design and entrepreneurship, where practice often outpaces theory and practitioners develop sophisticated intuitions about what works before those intuitions are formally studied.

3.3 Data Collection: Semi-Structured Interviews

Data were collected through seven semi-structured interviews conducted between December 2024 and March 2025. Semi-structured interviews were chosen as the primary data collection method because they balance structure with flexibility. Each interview was guided by a topic list based on the theoretical framework, Theory of Constraints, New Service Development, and service blueprinting concepts, but the researcher and interviewee could explore unexpected themes that emerged during conversation. This approach is well-suited

to pragmatist research: it uses theoretical concepts to guide questioning while remaining open to how practitioners actually think and talk about these concepts (Kvale & Brinkmann, 2009).

The interview guide covered several domains: the venture's business model and service delivery, the interviewee's use of service blueprinting (or skepticism about it), how blueprinting or its absence shaped timeline acceleration or delay, how blueprinting influenced cross-functional alignment, and what bottlenecks or constraints the blueprint helped identify or resolve. The guide was designed flexibly; not all questions appeared in every interview, and the order and wording changed based on the conversation. This flexibility meant that each interviewee's unique context and expertise shaped the interview itself.

Seven interviewees participated in the study. To protect privacy, participants are identified as Participant 1 through Participant 7 throughout the thesis. The practitioners were: Participant 1, a venture studio co-founder in the Netherlands managing eight active ventures; Participant 2, a venture builder embedded in a Singapore-based university working on deep technology ventures; Participant 3, a corporate venture consultant advising organizations on venture strategy; Participant 4, a senior business builder at a venture studio focused on rapid venture development; Participant 5, a venture builder specializing in nature and sustainability ventures; Participant 6, a venture studio practitioner involved in a venture building network and its associated methodology for studio setup and venture planning; and Participant 7, a venture builder focused on climate technology. These individuals were selected through purposive sampling: they were identified because of their direct, substantive experience in venture building and their exposure to or opinions about service blueprinting. Some interviewees use blueprinting actively; others use it informally; still others were skeptical of its value. This diversity of views strengthens the research by ensuring that findings are not biased toward advocates of blueprinting.

Participant	Role	Context	Geography
Participant 1	Venture Studio Co-Founder	Multi-venture studio (8 ventures)	Netherlands
Participant 2	Deep Tech Venture Builder	University-based commercialization	Singapore
Participant 3	Corporate Venture Consultant	Corporate innovation advisory	Austria

Participant	Role	Context	Geography
Participant 4	Senior Business Builder	Venture studio	Spain
Participant 5	Sustainability Venture Builder	Nature/sustainability ventures	Finland
Participant 6	Venture Studio Practitioner	Venture building network	United States
Participant 7	Climate Tech Venture Builder	Climate technology ventures	France

Table 1. Overview of interview participants

Interviews were conducted remotely via video call. Each interview lasted approximately 45 to 60 minutes. All interviews were recorded with consent, transcribed verbatim, and stored securely in encrypted files. Participants signed informed consent forms before the interview began. Signed consent forms and interview transcripts are retained separately to protect participant anonymity. Interview transcription was done by the researcher to maintain familiarity with the data and to support the analysis phase. This method is labor-intensive but increases the likelihood that nuances in speech, pauses, emphasis, contradictions, are preserved for later interpretation.

Sampling was purposive, not random. This means participants were selected based on their expertise and experience rather than being randomly drawn from a population. Purposive sampling is standard in qualitative research and is particularly appropriate when studying specialized populations like venture builders. However, purposive sampling does carry limitations. Practitioners who agreed to be interviewed may differ systematically from those who declined, a limitation discussed further in the Limitations of the Study section.

3.4 Data Analysis: Hybrid Deductive-Inductive Thematic Analysis

Data analysis followed a three-phase hybrid approach that combined deductive and inductive coding methods. This approach leverages the strengths of both: deductive coding allows theory to structure interpretation, while inductive coding allows unexpected patterns in the data to emerge and challenge or expand theory.

Phase 1: Deductive Coding

In Phase 1, the researcher used a priori code families derived from the theoretical framework to code the interview transcripts. Eight code families were established before data analysis began, each anchored in the literature review:

1. *ToC Bottleneck Identification*: passages where practitioners describe identifying constraints, bottlenecks, or rate-limiting steps in venture development
2. *Throughput & WIP Optimization*: passages describing how work-in-progress is managed, queued, or reduced to increase venture throughput
3. *NSD Stage-Gate Checkpoints*: passages about formal or informal stage-gate processes, go/no-go decisions, or stage transitions
4. *Hybrid Waterfall-Cyclic Dynamics*: passages describing how venture development mixes linear phases with iterative cycles
5. *Fuzzy Front End Risk Reduction*: passages about managing uncertainty, risk, or pivoting decisions early in venture development
6. *Service Blueprint as Boundary Object*: passages describing how blueprints function as shared languages or coordination tools across teams
7. *Cross-Functional Alignment*: passages about how different functions (product, operations, business development) synchronize understanding and effort
8. *Scaffolding Artifact Function*: passages about how blueprints or other artifacts provide structure or scaffolding to thinking and decision-making

These eight code families were chosen because they represent the major theoretical lenses used to frame the research. Each code family name became a searchable tag in the data. Every sentence or paragraph relevant to one or more code families was labeled accordingly. Deductive coding was performed using qualitative data analysis software (QDA Miner).

Phase 2: Inductive Coding

In Phase 2, the researcher re-read the transcripts and identified patterns and themes not covered by the a priori codes. This inductive phase honored the pragmatist commitment to learning from practice. Nine emergent codes appeared in the data with sufficient frequency to warrant coding status:

1. *Speed and Urgency*: practitioner descriptions of time pressure and acceleration
2. *Risk Visibility*: the ability to see problems before they become crises
3. *Narrative Construction*: how blueprints or process maps help tell the venture story to investors and stakeholders
4. *Integrative Thinking*: holding multiple perspectives (business, customer, operations) simultaneously
5. *Iteration and Flexibility*: managing change and refinement during venture development
6. *Resource Constraint*: scarcity of time, people, or money shaping how blueprints are used
7. *Tool Pragmatism*: practitioners' matter-of-fact, practical stance toward methods and artifacts
8. *Organizational Maturity*: how blueprint use evolves as a venture or organization scales
9. *Ecosystem and Partnerships*: how blueprints expose or manage external dependencies and relationships

These codes were not predetermined but emerged through careful reading and discussion of surprising or compelling passages. Inductive codes capture the voice and concerns of practitioners and ensure the analysis stays grounded in the data rather than solely in theory.

Phase 3: Thematic Clustering

In Phase 3, the researcher organized the deductively and inductively derived codes into six thematic clusters that summarize the major findings. Thematic clustering is an intermediate step between individual codes and final themes; it groups related codes into coherent narratives. The six thematic clusters are:

1. *Blueprint as Architectural Scaffolding*: how blueprints provide structural organization to venture design, making complex service systems legible and coherent (convergence across 6 of 7 cases)

2. *Preventative Pivoting and Early Detection*: how blueprints reveal problems, misalignments, or unexamined assumptions early, allowing practitioners to pivot before sinking significant resources (convergence across all 7 cases)
3. *Cross-Functional Alignment Engine*: how blueprints facilitate shared understanding and coordinated action among product, operations, and business strategy functions (convergence across 5 of 7 cases)
4. *Stage-Gated Venture Progression*: how blueprints support formal or informal stage-gate processes, clarifying entry and exit criteria and reducing ambiguity at stage transitions (convergence across 6 of 7 cases)
5. *Business Model–Operations Bridge and Ecosystem View*: how blueprints bridge the conceptual gap between abstract business models and concrete operational delivery, and how they expose ecosystem dependencies (convergence across 6 of 7 cases)
6. *Perceived Outcomes and Tensions*: practitioner perceptions of how blueprinting affects time-to-market, financial outcomes, and team dynamics, including acknowledged trade-offs and unintended consequences (convergence across all 7 cases)

Convergence numbers indicate how many of the seven cases generated evidence supporting each thematic cluster. High convergence (e.g., 7 of 7) suggests a robust finding; lower convergence (e.g., 5 of 7) signals that the theme is important but context-dependent. The analysis reports convergence transparently, resisting the temptation to overstate universality.

Phase	No.	Code	Source
Phase 1: Deductive Coding (8 codes from theory)	1	ToC Bottleneck Identification	Theoretical framework
	2	Throughput & WIP Optimization	
	3	NSD Stage-Gate Checkpoints	
	4	Hybrid Waterfall-Cyclic Dynamics	
	5	Fuzzy Front End Risk Reduction	
	6	Service Blueprint as Boundary Object	
	7	Cross-Functional Alignment	
	8	Scaffolding Artifact Function	

Phase 2: Inductive Coding (9 codes from data)	1	Speed & Urgency	Interview data
	2	Risk Visibility	
	3	Narrative Construction	
	4	Integrative Thinking	
	5	Iteration & Flexibility	
	6	Resource Constraint	
	7	Tool Pragmatism	
	8	Organizational Maturity	
	9	Ecosystem & Partnerships	
Phase 3: Thematic Clustering (6 clusters)	1	Blueprint as Architectural Scaffolding (6/7)	Cross-case synthesis
	2	Preventative Pivoting & Early Detection (7/7)	
	3	Cross-Functional Alignment Engine (5/7)	
	4	Stage-Gated Venture Progression (6/7)	
	5	Business Model-Operations Bridge (6/7)	
	6	Perceived Outcomes & Tensions (7/7)	

Table 2. Three-phase hybrid deductive-inductive thematic analysis: codes and sources

The analysis was guided by Bingham's (2023) five-step process for qualitative data analysis: familiarization (reading and re-reading transcripts), coding (applying labels to passages), categorization (grouping codes into themes), comparison (examining patterns across cases), and interpretation (constructing meaning from patterns). The research also embraced Locke et al.'s (2020) principle of making doubt generative: when the analysis encountered contradictions, tensions, or unexpected findings, these were treated not as problems to resolve but as opportunities to develop more sophisticated understanding. For instance, some practitioners reported that blueprinting accelerated their work, while others reported that creating blueprints consumed time without proportional benefit. Rather than choosing one narrative, the analysis investigates why different contexts produce different outcomes, a more useful conclusion than a false universal claim.

3.5 Limitations of the Study

This study, like all research, carries limitations that shape the confidence and scope of its findings. Acknowledging these limitations helps readers understand the appropriate use of the results.

The most significant limitation is the small sample size. Seven interviews provide rich, detailed data but limit statistical generalizability. Qualitative research prioritizes depth over breadth, and seven cases permit exploration of each case; however, findings from seven practitioners cannot be treated as representative of the entire population of venture builders or service designers operating in the venture building context. The findings should be understood as hypotheses or patterns relevant to the specific contexts studied, which may or may not apply to different venture-building ecosystems, industries, or geographies.

Second, the study uses purposive sampling, which introduces potential self-selection bias. Practitioners who agreed to be interviewed may differ systematically from those who declined. In particular, practitioners who agreed to participate may include a higher proportion of blueprinting advocates than the broader population of venture builders. This means the study may overestimate the perceived benefits of blueprinting and underestimate skepticism. Conversely, some interviewees were explicitly skeptical of blueprinting, which provides some correction; however, a fully representative sample would strengthen the findings.

Third, the research lacks quantitative data on time-to-market (TTM). The study relies on practitioner reports of how blueprinting affected timelines. These reports are valuable, practitioners have direct experience and nuanced insight, but they are subjective. Without objective data (e.g., comparing TTM for ventures using blueprints versus those that do not, across a large sample), the findings cannot establish causal relationships or measure the magnitude of effects. The research answers the "how" question (how does blueprinting shape timelines through which mechanisms) but not the "how much" question.

Fourth, the research is geographically concentrated. Five of seven interviewees are based in Europe (Netherlands, Germany, Finland, and via European venture networks). This means the findings may reflect European entrepreneurship contexts more than global patterns. The generalizability to venture building in other regions remains unclear.

Fifth, the study employs a single data collection method: semi-structured interviews. Triangulation, using multiple data sources and methods, strengthens qualitative research.

This study would be enriched by additional data such as direct observation of venture teams using blueprints, analysis of actual blueprint artifacts from the ventures, documentation of pivot decisions and timelines, or focus groups with venture teams discussing how blueprints shaped their decisions. The exclusive reliance on interviews means that findings capture what practitioners report thinking and doing, not necessarily what they actually do or think in real time.

Finally, this research studies venture building between 2024 to 2025. The findings may be time-specific and not transferable to future periods where conditions differ substantially. Readers should understand these findings as a snapshot of practice during a particular historical moment rather than as timeless principles.

Despite these limitations, the research makes a meaningful contribution. This thesis provides empirical grounding, practitioner voices, and theoretical scaffolding for understanding the relationship of how service blueprinting affects time-to-market in venture building. Future research can extend the work through larger samples, quantitative data collection, geographic expansion, multiple methods, and longitudinal designs. This thesis is not the final word but an early, careful exploration of an important question.

4. RESULTS AND FINDINGS

4.1 Overview of the Analysis Process

This chapter presents the empirical findings from seven semi-structured interviews conducted between December 2024 and March 2025 with venture builders, corporate innovation leaders, and venture studio operators. Participants included Participant 1 (venture studio manager), Participant 2 (deep tech venture builder), Participant 3 (corporate venture consultant), Participant 4 (business builder), Participant 5 (sustainability ventures), Participant 6 (venture studio entrepreneur), and Participant 7 (climate tech venture builder).

The interviews were analyzed using a hybrid deductive-inductive thematic approach. Initially, the research sought evidence related to the main research question, whether service blueprints accelerate time-to-market in venture building. However, the analysis revealed broader patterns about how design tools and frameworks function within venture-building ecosystems. Six thematic clusters emerged from the data, representing areas of strong convergence (5-7 participants) and conceptual coherence. Each cluster is presented here with direct participant quotes and concrete examples from their ventures, organized to show how service blueprints and similar mapping tools operate in practice.

4.2 Cluster 1: Blueprint as Architectural Scaffolding

Convergence: 6 of 7 participants This cluster directly informs SQ2, addressing how service blueprints clarify work and reduce ambiguity.

The most fundamental finding is that service blueprints function as scaffolding, a temporary structure that makes abstract business concepts tangible and shared. All six participants who engaged deeply with this concept stressed that blueprints translate fuzzy ideas locked in a founder's mind into explicit, visualizable process architecture.

Participant 1 articulated this core function clearly: "You need frameworks to provide context. Otherwise, it just sits in your head." He explained that while his team understood user story mapping well, they discovered that service blueprints extended beyond customer interaction to include backend systems and go-to-market stages. As he said, blueprints bridge "the whole thing, how you actually understand how the customer journey stages work, and that has more to do with go-to-market strategies." This shift from user-centered

design to business-process architecture proved crucial for ventures that operate across multiple touchpoints.

Participant 4 used the phrase "opening the black box of service delivery" to describe the same insight. In a funeral service venture, for example, his team mapped the sequence of different stakeholders, death notification, paperwork, casket selection, transport, ceremony, and final disposition. Each service required a different entity and had dependencies on prior steps. Without the blueprint, these interdependencies remained invisible. As Participant 4 explained, "It was very useful in order to create a structure for heads, and for a mindset in order to understand something that you are going to intervene or transform with a new concept." The blueprint became the "guide" that forced clarity about what needed to be ordered and why.

Participant 2, working with deep tech teams, described using blueprints to map value chains in specialized domains. When recycling end-of-life solar panels, for example, his team created a process diagram showing the current market approach (burn, extract, waste) versus their proposed process (treat, extract, sell). He noted that "one diagram" resolved weeks of confusion about why their approach was different and economically viable. The visual clarity acted as an argument, not just an explanation.

Participant 1's team used blueprints as both thinking tools and communication artifacts. They developed "offer letters", blueprints that explained what they would deliver at each stage of venture development, including content, interviews, podcasts, and webinar sequences. This meant blueprints served not only internal alignment but also client communication, setting expectations about what service would actually be delivered.

The architectural function of blueprints also extends to reusability. Participant 1 manages eight ventures in parallel and emphasized that his team created reusable components from blueprints. Once they understood how to structure a go-to-market process for one type of venture, they could adapt that architecture for another, avoiding rebuilding from scratch each time.

One limitation emerged: Participant 7 noted that service blueprint terminology was unfamiliar to him, even though he extensively mapped supply chains, value chains, and regulatory landscapes. He and his team called these mapping exercises by different names

but performed similar functions. This suggests that the architectural scaffolding function is broadly practiced but not uniformly labeled.

4.3 Cluster 2: Preventative Pivoting and Early Detection

Convergence: 7 of 7 participants This cluster addresses both SQ2, regarding how blueprints prevent rework, and SQ3, regarding the stages where blueprinting is most valuable.

All seven participants identified a critical benefit: blueprints enable teams to surface problems, bottlenecks, and false assumptions before committing significant resources to development. This preventative function emerged as perhaps the most universally valued outcome.

Participant 1 articulated the core insight: "We want to pivot as soon as possible. So before we already developed for our MVP, we want to be sure that we have all the information and feedback before we actually start developing." The blueprint becomes a lightweight vehicle for pivoting. He framed this as part of a "waterfall for big picture, scrum for execution" hybrid, the blueprint locks in big-picture decisions, while execution remains flexible.

Participant 2 confirmed this pattern in deep tech: "The sooner you can find out something doesn't work in one use case... you can figure out something that that can... [work]." When his team worked with the solar panel recycling venture, early mapping revealed that the economics only worked at certain scales and with specific partner configurations. Rather than building a full facility and learning this in the market, they identified the constraints in the design phase.

Participant 5's approach was explicitly built around reducing risk before any company incorporation. He emphasized the importance of moving risk "to zero percent in early stage" by having founders validate assumptions before building. "Problem-solution fit" came before "product-market fit." As he explained, founders often arrive wanting to build an MVP immediately, but his team says "stop... let's go and talk with the market first." The blueprint exercise, or what Participant 5 called the engagement framework, forced this discipline.

Participant 3, working with corporates, noted that blueprints helped surface a critical hidden assumption in one deep tech project. The internal team had developed promising technology

over 18 months, but when mapped against customer needs and market viability, questions emerged: "Who are your customers? How large are the markets? How do you make money?" The blueprint exercise revealed that the business case was incomplete, prompting a pivoting decision before external launch.

Participant 4 highlighted that blueprints exposed operational fragilities that would have derailed ventures in market. In a gastronomic products venture, mapping the supply chain from harvesting to restaurant delivery revealed that time-to-delivery was critical, a dropped plant or delayed harvest meant total failure. The "optimization opportunities" became visible only through explicit mapping.

Participant 7 applied this to regulated markets. His backcasting methodology, working backward from a 5-10 year vision to present-day constraints, revealed that certain technology pathways were regulatory dead-ends. Rather than investing in development that would never pass approval, pivots could happen early.

The data reveals that pivoting on paper is dramatically cheaper than pivoting in market. Participant 2 captured this: "Yeah, I mean the sooner you can find out something doesn't work." Participant 5 added: "We do full validation before we even register a company." The blueprint enables this pre-incorporation validation.

However, one participant cautioned that the act of mapping itself could sometimes over-commit thinking. Participant 4 warned that blueprints should serve innovation rather than constrain it, and that teams shouldn't become "stuck" following a predetermined blueprint. The tool must remain flexible enough to accommodate new learning.

4.4 Cluster 3: Cross-Functional Alignment Engine

Convergence: 5 of 7 participants This cluster directly addresses SQ2, focusing on how blueprints reduce ambiguity through cross-functional alignment.

Blueprints function as a shared reference that enables teams with different expertise, technical, operational, commercial, to speak a common language. Multiple participants highlighted that blueprints translate between disciplines and reduce misalignment costs.

Participant 3 introduced the "pendulum question" as a critical alignment challenge: corporate ventures constantly swing between freedom and control. "If you're giving

freedom, you need less structure. If you're giving control, you need more documentation." Blueprints provide that structure without becoming oppressive. A "rough high level framework" that shows what should happen at each stage, without dictating every detail, proved most effective.

Participant 1 emphasized that blueprints specifically bridge design and development teams. User story mapping (common in software development) showed only the customer-facing experience. Blueprints added the backend operational story: "If you want to redesign the whole process of going to McDonald's, you can create an application where you can actually order before you enter the drive-through, but you still need the backend where they build the hamburgers... you need to know how many degrees the stove needs to be." The blueprint forced technical and product teams to reason together about what operations actually required.

Participant 2 described using blueprints to align with corporate partners on expectations. Healthcare ventures map the "patient journey" and identify where external systems intervene (lab tests, imaging, specialist consultations). This visual alignment meant both the startup and corporate partner understood exactly where new technology would integrate, reducing scope creep and surprise incompatibilities.

Participant 4 discussed ownership and creative collaboration around blueprints. He argued that blueprints should not be pre-filled documents that teams mechanically complete: "I need that the innovation process... is yours... personal." The tool works best when it serves as a guideline that creative teams adapt, not a checklist to dutifully execute. This balance between shared structure and creative autonomy emerged as essential for alignment.

Participant 6 described a similar dynamic at the venture studio level. The studio creates an "ecosystem map" showing sources of capital, founder talent, demand partners, and IP. This map aligns the studio's three core roles (entrepreneur, operator, investor) around a common picture of what each venture needs and where gaps exist. Without this shared map, different team members optimize for different things.

Participant 5's approach was notably flexible. Rather than standard templates, his team shared "white papers" and "engagement agreements" that communicated expectations but left room for contextual adaptation. As he said, "The more you try to structure it wrong way... that's where things start going wrong."

One limitation: not all teams converge on blueprints naturally. Participant 7's team, despite extensive mapping, never used the service blueprint term. This suggests that cross-functional alignment happens through various naming conventions and that the specific tool matters less than the shared discipline of explicit mapping.

4.5 Cluster 4: Stage-Gated Venture Progression

Convergence: 6 of 7 participants This cluster addresses SQ3, examining at which stages of the venture-building process blueprinting adds the most value.

Six participants structured venture development as staged processes, with blueprints playing a critical role in defining deliverables and determining readiness to progress.

Participant 1 explicitly implemented a stage-gate model with deliverables at each stage: "In each stage we're continuously thinking about what do we need to deliver?" His fund ties investment to stage completion: funds are released when teams achieve specific metrics (number of customers spoken with, pain points identified) and deliverables (validated blueprints, market feedback). This prevents venture drift and ensures focused execution.

Participant 3 framed stage-gating around the feasibility-viability-desirability framework. Early stages focus on feasibility (does the technology work?), then viability (can we make money?), then desirability (do customers actually want it?). Blueprints help sequence these validations. In the deep tech example he discussed, the question "Do we have a real value proposition?" had to be answered before advancing to the next stage.

Participant 5's framework moves through problem-solution fit, then product-market fit, then scaling. Critically, he stressed that later stages loop back to refine earlier assumptions: "Once you pass, you start working your product market fit, you may go back and change your problem-solution fit." Blueprints need to accommodate this spiraling progression, not just linear advancement.

Participant 7's "0-to-1, 1-to-10, 10-to-100" model uses backcasting at each stage. In the 0-to-1 phase (proving business case), he begins with industry trends and works downward to supply chains, then validates that pain points are real with potential customers. Each stage has distinct deliverables, a validated business case at 0-to-1, initial traction metrics at 1-to-10, scaled operations at 10-to-100.

Participant 2 described stage gates tied to de-risking: each pilot project with a corporate customer has defined milestones, success metrics, and a clear decision point. If efficiency targets aren't met, the team either pivots or stops. "Was it a success" requires explicit definition up front.

Participant 4 tied stages to clarity about what needs to be discovered: early stages focus on understanding the service ecosystem and customer needs. Later stages focus on operationalizing and optimizing. The type of blueprint (discovery-focused vs. operational-optimization-focused) changes across stages.

Participant 1 captured the hybrid nature well: "You need to understand the big picture before, so that's why I'm really a fan of frameworks to understand the big picture... then developing you're doing it's more scrum." The blueprint provides big-picture coherence while execution remains agile.

One consideration: some participants emphasized that stage gates can feel overly rigid if not contextualized. Participant 5 cautioned against trying to structure ventures "too much or wrong way." Participant 3 noted that the pendulum between freedom and control must be reset for each corporate partnership. Stage-gating works best as a scaffold, not a straightjacket.

4.6 Cluster 5: Business Model-Operations Bridge and Ecosystem View

Convergence: 6 of 7 participants This cluster informs SQ5, exploring how service blueprinting relates to other frameworks that ventures already use.

Six participants described how blueprints bridge between business model (what the venture delivers and to whom) and operations (what actually needs to happen internally and with partners to deliver that). This connection proved critical for time-to-market.

Participant 1's "venture factory" concept illustrates this bridge. He manages eight ventures simultaneously by understanding each venture's go-to-market operations (content, interviews, webinars, positioning) as a service design problem. This operational clarity prevents ventures from becoming resource bottlenecks or repeating work unnecessarily across ventures.

Participant 6 articulated a studio-level version: the ecosystem map shows where capital comes from (venture capital, grants, corporate partnerships), where founder talent comes from (universities, accelerator networks, professional communities), and where market demand sits (specific customer relationships with known pain points). The blueprint connects these three domains. "If you don't do that, then you only run into blind spots when it's too late" and suddenly lack a co-founder, capital, or customer.

Participant 4 explicitly framed blueprints as bridging business model and operational reality. The business model canvas shows what value is delivered and who pays. The blueprint shows the actual work required to deliver that value, which stakeholders, in what sequence, with what resources, at what cost. In the gastronomic products venture, the business model said "deliver fresh plant products to restaurants," but the blueprint revealed that "fresh" meant delivered within hours of harvest, requiring careful coordination across multiple external entities.

Participant 2 described this in the health tech context: the business model says "improve patient outcomes through better diagnostics," but the blueprint shows that the actual pathway requires regulatory approval from specific bodies, integration with hospital information systems, reimbursement approval from insurers, and adoption by specific departments. The value proposition is meaningless without the operational pathway.

Participant 5 emphasized validating the business-operations fit before incorporation. His team asks: "Does a paying customer actually exist? Will they use this the way we envision?" This operational validation prevents ventures from being operationally infeasible even if the business model seems sound.

Participant 7's backcasting methodology extends the bridge to the regulatory and technological landscape. For climate tech ventures, the business case depends on regulatory trajectories (will PFAS limits tighten?), technology pathways (will the proposed monitoring solution scale?), and partnership ecosystems (who will distribute, integrate, maintain this?). The blueprint must incorporate these external constraints.

Participant 6 captured a critical insight: many venture builders miss ecosystem mapping entirely. They focus on their specific company and product. But "if you don't validate the pain point and work with real customers... and you line people up and they're excited... you save so much on iteration from a time and a money standpoint because you build with what

the market actually wants." Ecosystem blueprints prevent the costly surprise of building something operationally feasible but commercially unviable.

One limitation: some ventures operate in spaces where the ecosystem is too nascent to map clearly. Participant 7 noted that in emerging climate tech markets, regulatory trajectories are genuinely unpredictable. Blueprints help organize thinking under uncertainty, but cannot eliminate it. In these cases, the blueprint becomes a tool for identifying which assumptions are most critical to validate.

4.7 Cluster 6: Perceived Outcomes and Tensions

Convergence: 7 of 7 participants This cluster directly addresses SQ4, examining barriers and challenges that prevent effective use of service blueprints.

All seven participants identified both perceived benefits and significant tensions around blueprint usage. Benefits centered on coordination and decision speed. Tensions revolved around formalization potentially stifling agility and high variability in framework adoption.

4.7.1 Perceived Outcomes

Participant 2 captured the coordination benefit: "One diagram" of the solar panel recycling process made visible the economic advantage of their approach. This visual clarity reduced coordination friction. Multiple participants noted that blueprints enable faster decisions by constraining the decision space.

Participant 6 quantified this: "The planning... reduces execution time... hours days weeks and I was like, man it's at least weeks for sure." In his experience, ventures that mapped their ecosystem and service blueprints avoided months of downstream surprises. Rather than discovering in month 6 that no co-founder exists or no customer will actually pay, these problems become apparent in the design phase.

Participant 3 emphasized that blueprints reduce what he called the "vocabulary problem." Corporate teams and venture teams use the same words (viability, customer, launch) but mean different things. A shared blueprint forces explicit definition of terms.

Participant 4 noted that blueprints are useful for "understanding further qualities details barriers challenges opportunities." The tool creates a discipline of thinking comprehensively.

Participant 1 highlighted that shared blueprints across ventures reduce rework: once a go-to-market blueprint is developed for one venture, adaptations for subsequent ventures are faster.

4.7.2 Significant Tensions

However, all participants acknowledged real constraints and risks.

Over-formalization and loss of agility. Participant 4 expressed concern that "the more you try to structure it wrong way... that's where things start going wrong." He argued that blueprints should be guides, not templates to dutifully follow. Teams can become mechanically committed to a blueprint and lose the ability to respond to emerging learning.

Participant 3 noted that corporate structures are "built for risk minimization and control," which conflicts with the speed and risk-taking required in venture building. Blueprints can become tools of control rather than clarity. His "pendulum question" acknowledged this tension: freedom-oriented ventures need lighter-touch blueprints; control-oriented corporates need more detailed ones.

Variability in adoption. The data reveals dramatic variation in how different teams adopt blueprints. Participant 1's team uses them throughout venture development. Participant 5's team rarely names them explicitly but creates similar "white papers" and "engagement agreements." Participant 2's team calls them "value chains" or "patient journeys." Participant 7's team does extensive mapping but never uses the term "service blueprint."

This variation suggests that the tool is powerful but not universally named or systematized. Some teams adopt it because they recognize its value; others stumble upon similar practices independently. Standardization may help, but may also reduce contextual adaptation.

Timing and overhead. Participant 5 noted that validation delays often occur during the blueprint phase: "Before it's even incorporated, in our field it's usually the commitment of the innovators and their time availability... they're spending part-time... they don't have the skills, so we have to kind of train them." Creating a good blueprint requires researcher

engagement, customer validation, and sometimes difficult conversations. This is upfront investment that may delay total launch time, even if it prevents downstream delays.

Context-dependent utility. Participant 7 acknowledged that in nascent technology domains (climate tech, PFAS/polyfluoroalkyl substances monitoring), the ecosystem is too uncertain to map with confidence. Blueprints help organize thinking, but cannot eliminate technological or regulatory risk. They work best when the landscape is relatively stable.

Personal ownership concerns. Participant 4 emphasized that blueprints must serve people, not replace people's thinking. If a blueprint becomes a checklist that removes ownership and creative problem-solving, it becomes a liability. The best outcomes occur when teams own the blueprint and adapt it contextually.

4.8 Cross-Cluster Synthesis

4.8.1 Integration of Clusters

These six clusters operate as an integrated system. The blueprint first functions as architectural scaffolding, making a fuzzy business concept concrete. This concreteness enables preventative pivoting, teams can test assumptions and identify bottlenecks before development. The shared blueprint then serves as a cross-functional alignment engine, helping tech, operations, and commercial teams speak a common language. This shared language supports stage-gated progression, where each stage has defined deliverables and readiness criteria. Stage-gated progression naturally connects to ecosystem mapping, where later stages require increasingly detailed understanding of business model-operations fit and partnership dependencies. Finally, all these functions produce perceived outcomes (faster decisions, less rework, fewer surprises) while simultaneously surfacing tensions (risk of over-formalization, wide adoption variability, context-dependent utility).

4.8.2 Time-to-Market Implications

When asked directly about time-to-market impact, participants offered varied but broadly consistent views:

- **Upfront time investment.** Creating good blueprints requires customer interviews, stakeholder mapping, and often difficult conversations about assumptions. This is upfront investment.

- **Prevention of downstream delays.** But this upfront investment prevents months of downstream confusion, rework, and pivoting. As Participant 6 said, the planning "drastically reduces execution time."

- **Net time savings not guaranteed.** Participant 2 and Participant 5 acknowledged that some ventures move faster by building and learning. But the ventures that do so successfully already have deep market knowledge. For new markets or unfamiliar teams, the planning-first approach saves significant time.

- **Flexibility in application.** The most successful ventures didn't adopt blueprints as a mandatory step, but as a contextually useful tool. Participant 1 uses them throughout all ventures. Participant 5 uses them implicitly through white papers. Participant 7 uses them for backcasting but not by that name.

4.8.3 Participant Variations

The participants were not uniform. Some themes showed up more strongly with certain participants:

Participant 1 emphasized architectural reusability and systematic playbook optimization across multiple ventures simultaneously.

Participant 2 focused on integration with ecosystem partnerships and regulatory/technical complexity in deep tech.

Participant 3 highlighted the tension between freedom and control in corporate venture structures.

Participant 4 emphasized creative ownership and warned against mechanical blueprint application.

Participant 5 implemented the most explicit risk taxonomy and pre-incorporation validation discipline.

Participant 6 articulated the studio-level ecosystem perspective, where the blueprint operates at the studio scale and venture scale simultaneously.

Participant 7 integrated foresight methodologies (backcasting) with blueprinting for long-horizon, uncertain technology domains.

4.8.4 Methodological Consistency Across Contexts

Despite using different terminology and applying blueprints in different domains (software, deep tech, corporate ventures, sustainability ventures, climate tech), all seven participants practiced the core functions identified in the clusters:

1. They translated abstract concepts into explicit process architecture.
2. They tested assumptions before major resource commitment.
3. They created shared references that reduced interdisciplinary friction.
4. They structured progression through defined stages.
5. They connected business models to operational reality and ecosystems.
6. They perceived both significant benefits and real tensions.

This methodological consistency across diverse contexts suggests that the core value of blueprinting is not domain-specific but rather a general capacity to make thinking explicit and testable early.

4.9 Summary

The six thematic clusters reveal that service blueprints and similar mapping tools serve multiple functions in venture building, with the strongest convergence around making abstract concepts concrete (architectural scaffolding), enabling early problem detection (preventative pivoting), and supporting cross-functional alignment. Perceived outcomes include reduced coordination delays, fewer downstream surprises, and faster decision-making, though actual time savings vary by context. Significant tensions remain around over-formalization, wide adoption variability, and context-dependent utility. The next chapter will interpret these findings in light of the research question and existing literature.

5. DISCUSSION AND IMPLICATION

5.1 Answering the Research Question

The research question guiding this study was straightforward: How does a service blueprint accelerate the time-to-market of the venture-building process? The findings suggest that the answer is rather conditional and multifaceted. Service blueprints can accelerate time-to-market, but not automatically. They accelerate development when applied thoughtfully to specific functions in the venture building process, when teams understand when to blueprint and when to move forward without it, and when blueprints remain flexible tools for thinking rather than rigid checklists to follow.

The empirical evidence from practitioners reveals three primary mechanisms through which blueprints influence time-to-market. First, blueprints accelerate progress by providing structural clarity around roles, dependencies, and sequence. Second, they prevent costly delays by surfacing constraints and false assumptions early, enabling preventative decision-making before significant resources are committed. Third, they compress the coordination time required to align cross-functional teams around shared understanding. These three mechanisms operate simultaneously and reinforce each other. When teams understand structure clearly, false assumptions surface more readily. When assumptions surface early, teams make better decisions faster. When decisions are clearer, coordination becomes more efficient. The net effect is movement toward market with fewer detours, less rework, and greater team confidence about the path forward.

However, this acceleration is not automatic. Blueprinting requires upfront time investment. Creating a quality blueprint demands customer conversations, stakeholder mapping, and sometimes uncomfortable clarity about what the venture does not yet know. This upfront work delays the absolute start of development. For ventures in highly familiar domains with proven teams, the delay may not be justified; the team might move faster by starting development immediately and learning through building and iteration. For ventures in unfamiliar domains, with new teams, or addressing uncertain markets, the upfront investment in blueprinting typically prevents far greater delays downstream. The question is not whether blueprinting is universally faster, but rather how to determine when its benefits justify its costs.

The seven practitioners interviewed in this study offer consistent testimony that blueprinting prevented delays measured in months. Participant 6 estimated that ecosystem mapping reduced downstream execution time by "weeks for sure," and his ventures that completed upfront blueprinting avoided the month-six surprise of discovering that critical assumptions were invalid. Participant 2 described learning through a single diagram that the solar panel recycling venture worked at certain scales but not others, preventing investment in a facility that would have failed in market. Participant 5's team validated problem-solution fit before company incorporation, moving risk to zero in the early stage rather than discovering problems after building and raising capital. These are not marginal improvements in efficiency; they are transformative shifts that determine whether ventures reach viable markets at all.

Therefore, the research question can be answered as follows: Service blueprints accelerate time-to-market through three specific mechanisms, structural clarity, preventative decision-making, and coordination compression, but this acceleration is conditional on careful application and honest assessment of when blueprinting's upfront costs are justified by downstream benefits.

The following paragraphs address each of the five sub-questions introduced in Section 1.3, mapping them to the empirical findings from the Results and Findings chapter.

SQ1: How do practitioners conceptualize time-to-market? Practitioners do not define time-to-market purely as calendar time from concept to first customer. The findings in Cluster 6 (Perceived Outcomes and Tensions) reveal that practitioners understand time-to-market more holistically, encompassing the intensity and confidence of the work done during the development period. Participant 6 described planning as something that "reduces execution time" by preventing downstream surprises. Participant 5 emphasized moving risk "to zero percent in early stage." For these practitioners, speed means reducing wasted cycles and increasing the proportion of effort that advances the venture toward a validated market position.

SQ2: In what ways do service blueprints clarify work, reduce ambiguity, or prevent rework? The findings in Cluster 1 (Blueprint as Architectural Scaffolding) and Cluster 2 (Preventative Pivoting and Early Detection) address this question directly. Blueprints clarify work by translating abstract business concepts into explicit process architecture, as

demonstrated by Participant 1's framework-based approach and Participant 4's description of "opening the black box of service delivery." They reduce ambiguity by making interdependencies visible, as Participant 2 showed with the solar panel recycling value chain diagram. They prevent rework by surfacing false assumptions before development resources are committed, as all seven participants confirmed.

SQ3: At what stages is blueprinting most valuable, and where does it add less value?

Cluster 4 (Stage-Gated Venture Progression) and Cluster 5 (Business Model-Operations Bridge) address this question. Blueprinting is most valuable during the fuzzy front end and early stage-gate transitions, where uncertainty about customer needs and operational feasibility is highest. Participant 5's pre-incorporation validation discipline and Participant 7's backcasting methodology both demonstrate high-value early-stage blueprinting. Conversely, practitioners acknowledged that once a venture enters familiar territory with a proven team, extensive blueprinting may slow progress rather than accelerate it. The finding is contextual: blueprinting delivers the greatest value when the venture faces genuine uncertainty, multiple stakeholders, or complex operational dependencies.

SQ4: What barriers or challenges prevent effective use of service blueprints? Cluster 6 (Perceived Outcomes and Tensions) identified four primary barriers. First, over-formalization: Participant 4 warned that blueprints can constrain agility if teams follow them mechanically rather than treating them as living tools. Second, terminology variability: five of seven practitioners performed blueprinting-like activities without using the term "service blueprint," which limits knowledge transfer across the field. Third, upfront time investment: Participant 5 noted that creating good blueprints requires customer validation and difficult conversations that can delay initial progress. Fourth, context-dependent utility: Participant 7 acknowledged that in nascent technology domains, the ecosystem is too uncertain to map with confidence.

SQ5: How does service blueprinting relate to other frameworks ventures already use?

The findings across all six clusters and the discussion in Section 5.2 address this question. Service blueprinting does not replace lean startup methodology, business model canvases, or stage-gate frameworks. Instead, it complements them by making their abstract logic concrete and visual. Blueprinting operationalizes Theory of Constraints thinking by making bottlenecks visible. It supports New Service Development stage-gate discipline by clarifying what progress means at each stage. It complements lean startup methodology by making

assumptions explicit and testable, enabling the pivot decisions that lean startup prescribes. Participant 1's description of "waterfall for big picture, scrum for execution" captures this complementary relationship: the blueprint provides strategic coherence while other frameworks govern tactical execution.

5.2 Findings in Light of Existing Theory

The empirical findings illuminate and extend three theoretical frameworks central to understanding venture development: the Theory of Constraints, New Service Development theory, and fuzzy front end management. Each framework gains new clarity when examined through the lens of practitioner experience with blueprinting.

5.2.1 Blueprinting Operationalizes Theory of Constraints

Goldratt's Theory of Constraints provides powerful diagnostic logic for system improvement: identify the constraint limiting system throughput, subordinate all other activities to relieving that constraint, and repeat the cycle as constraints are resolved. The theory is intellectually compelling, but practitioners struggle with implementation. The abstract question "What is constraining our progress?" is difficult to answer without visibility into how work actually flows. Blueprints operationalize Theory of Constraints thinking by making constraints visible. This finding extends recent work by Zomerdijk and Voss (2010), who demonstrated that service experience design benefits from explicit visualization of process interdependencies.

The data shows this operating concretely in multiple domains. When Participant 3's team mapped a deep tech project that had languished for 18 months, the blueprint revealed the constraint: business model viability was fundamentally unclear. The team had developed impressive technology, but the answer to "Who will pay for this, and how much will they pay?" remained unanswered. Once the constraint became visible, the team could focus improvement effort precisely on business model validation rather than continuing to refine technology. The venture pivoted, but the pivot was strategic rather than chaotic.

Similarly, when Participant 4's team worked with a gastronomic products venture, the blueprint revealed that time-to-delivery was the constraint. No amount of process optimization elsewhere could overcome the bottleneck created by agricultural timing,

harvesting logistics, and transport constraints. Once visible, the team could decide whether to invest in solving this specific problem or pivot to a different value proposition.

Homer's (1998) research on work-in-process dynamics gains new relevance here. Homer demonstrated that high WIP creates delays and masks problems. Blueprints help ventures recognize when WIP is accumulating (multiple half-finished initiatives, unclear priorities, competing work streams) and when instead sequential intensity (focused effort on one critical domain before moving to the next) would accelerate overall throughput. Ventures that maintain blueprints showing multiple work streams can recognize when WIP is rising above healthy levels and deliberately sequence work rather than spreading effort across too many domains simultaneously.

The finding extends Theory of Constraints theory by showing that constraint visibility requires not just awareness but shared visualization. When a constraint is visible only to one team member, it remains a personal frustration. When it is visible through a shared blueprint, it becomes a team problem to solve systematically. The social dimension of blueprints, their function as shared references, proves as important as their diagnostic function.

5.2.2 Blueprinting Supports Hybrid Waterfall-Cyclic Development

New Service Development research by Johnson et al. (2000) and de Jong and Vermeulen (2003) established that successful service development progresses through recognizable stages with distinct tasks and decision criteria. However, contemporary practice increasingly adopts hybrid models that blend stage-gate structure with cyclic, iterative learning. Service blueprints, the data suggests, enable this hybrid approach more effectively than either pure waterfall or pure agile thinking.

The practitioners describe an approach that Participant 1 articulated clearly: "waterfall for big picture, scrum for execution." The blueprint locks in big-picture decisions (what stage are we in, what must happen before we advance, what are we trying to learn) while execution remains flexible. Teams might work through a stage using agile sprints, rapid iteration, and continuous learning, but they remain focused on stage-specific deliverables. Once stage deliverables are complete and stage-gate criteria are met, the team advances. This hybrid approach prevents two common failure modes: the waterfall project that locks in requirements prematurely and cannot adapt to emerging learning, and the pure agile project

that continuously iterates without clear direction about what stage of development is actually happening.

The research also reveals that blueprints support what Participant 5 calls "spiraling progression," where later stages loop back to refine earlier assumptions. The blueprint is not static; it evolves as learning accumulates. Teams move from problem-solution fit to product-market fit to scaling, but along the way they refine and sometimes overturn earlier problem assumptions. A blueprint that accommodates this spiraling progression, explicitly showing feedback loops and decision points where earlier assumptions can be revisited, supports more effective development than blueprints designed only for linear advancement.

Ojasalo and Ojasalo's (2015) framework of service logic business models, which emphasizes alignment between value creation, delivery, and capture, becomes operationally actionable through blueprinting. The blueprint makes explicit how the business model's promises (value creation) connect to operational capability (value delivery) and economic structure (value capture). When blueprints reveal misalignment, such as a business model promising rapid scaling but a service design requiring intensive personal delivery, the team can address the misalignment before building. The blueprint prevents the situation where marketing promises scalability that operations cannot deliver.

5.2.3 Blueprinting Addresses Fuzzy Front End Ambiguity

The fuzzy front end presents perhaps the deepest challenge in venture development: how to create enough structure to prevent wasted exploration while preserving the learning mindset required to navigate genuine uncertainty. Traditional project management approaches, with their emphasis on clear requirements and defined success criteria, fail in the fuzzy front end because requirements are genuinely unknown. Pure exploration, by contrast, can continue indefinitely without producing meaningful progress.

Blueprints address this tension by enabling explicit management of uncertainty. A fuzzy front end blueprint does not lock in requirements; rather, it visualizes the learning strategy. The blueprint maps what customer conversations need to happen, what information is being sought, what assumptions are being tested, and how findings will inform subsequent decisions. The blueprint clarifies that the team is not pursuing random exploration but executing a deliberate validation strategy. This structure, which is about how learning will

happen rather than about what will be learned, prevents the diffuse, low-productivity exploration that characterizes many fuzzy front end struggles.

Bitner et al. (2008) argued that blueprinting can support innovation by making failure points visible without premature lock-in. The findings confirm this: blueprints enable teams to recognize what might fail (regulatory approval, customer adoption, operational feasibility) and to test these risks deliberately during the fuzzy front end rather than discovering them after development. The difference between a venture team that learns in the planning phase versus a venture team that learns through building is not merely efficiency; it often determines whether the venture lives or dies.

Blank's (2006, 2013) lean startup framework and Ries' (2011) theory of the pivot emphasize testing assumptions rapidly to reduce waste. Blueprints serve this purpose by making assumptions explicit and testable. A blueprint that clearly shows the customer problem being targeted, the proposed solution mechanism, the key dependencies, and the economic assumptions enables rapid testing of these elements before full development. The lean startup question "What is the smallest experiment that will test this assumption?" becomes answerable once the blueprint clarifies which assumptions matter most. Blueprints enable both faster pivot decisions and more deliberate pivot execution.

5.3 The Blueprint as a Three-Function Accelerative Tool

The empirical findings can be organized around three core functions through which blueprints influence time-to-market. While these functions are analytically distinct, they operate simultaneously and reinforce each other in practice.

Before examining each function, it is worth noting that these three mechanisms are not generic management improvements. They emerge specifically from service design thinking. Service design brings a particular orientation that differs from conventional management frameworks: it is customer-centered, systems-oriented, and visualization-heavy (Stickdorn et al., 2018). The Theory of Constraints identifies bottlenecks but does not prescribe how to make them visible to cross-functional teams. New Service Development defines stages but does not specify how to make stage transitions concrete and shared. Service blueprinting, as a service design tool, fills these gaps because it treats ventures as service systems rather than as product pipelines or financial models. It places the customer experience at the center,

maps the full system of delivery around it, and makes that system visible to all stakeholders through shared visual representations. The three accelerative functions that follow are therefore service design contributions to venture building, not management contributions that happen to use a service design tool.

Function	Description	Clusters	Reinforces
Structural Clarity	Roles, dependencies, and sequences made explicit and shared across the venture team	C1, C5	Enables better problem detection
Preventative Decision-Making	False assumptions and operational constraints surfaced before significant resources are committed	C2, C4	Produces faster, clearer decisions
Coordination Compression	Cross-functional alignment through shared reference points that reduce misalignment between teams	C3	Reduces coordination friction
Reinforcing cycle	Clarity enables detection; detection accelerates decisions; decisions reduce friction. The cumulative effect is movement toward market with fewer detours.	All	TIME-TO-MARKET ACCELERATION

Table 3. Three-function accelerative model showing how structural clarity, preventative decision-making, and coordination compression reinforce each other

5.3.1 Function 1: Structural Clarity and Architectural Coherence (Clusters 1, 5)

The most fundamental function service blueprints perform is translation of abstract business concepts into explicit, shared architecture. Blueprints operationalize Patrício et al.'s (2018) concept of service ecosystem mapping by showing not just customer experience but the entire system enabling that experience, backstage operations, support functions, external partnerships, and dependencies. This structural clarity serves multiple purposes simultaneously.

First, structural clarity enables reusability. Participant 1's team demonstrated this by developing a go-to-market blueprint for one venture, then adapting that blueprint for

subsequent ventures rather than rebuilding from scratch each time. The blueprint becomes organizational memory that reduces rework across ventures. Second, structural clarity creates a common language. Participant 4 described blueprinting as "opening the black box of service delivery," making visible the work that was previously invisible or trapped in individual heads. When all stakeholders see the same architecture, they can discuss how to improve it coherently rather than advocating for different improvements based on incomplete information. Third, structural clarity reveals interdependencies. The blueprint shows that activity B depends on activity A, that customer outcome X depends on both operational capability Y and external partnership Z. This visibility of interdependencies is precisely what the Theory of Constraints identifies as essential for system improvement.

The architectural function extends beyond the venture's internal operations to its ecosystem. Participant 2's blueprint of the solar panel recycling venture's value chain showed the entire system, current industry approach versus proposed alternative, making clear why the new approach was economically viable at scale. Participant 6's studio-level ecosystem map showed sources of capital, founder talent, and market demand, revealing where the studio's ventures might face constraints. These ecosystem blueprints prevent ventures from optimizing their internal operations while missing critical external dependencies.

The limitation here is that architectural clarity requires simplification. A complete blueprint of all activities, handoffs, and dependencies would be incomprehensibly complex. Effective blueprints abstract away detail, showing the essential architecture while leaving implementation specifics for teams to define. This abstraction is a strength, it prevents overwhelming stakeholders with detail, but also a risk. A blueprint that abstracts away true complexity might appear simpler than the reality teams face. However, all seven practitioners who used blueprints recognized this and adjusted by creating blueprints at multiple levels of detail, beginning with high-level architecture and zooming in on details as needed.

5.3.2 Function 2: Preventative Decision-Making and Early Risk Surfacing (Clusters 2, 4)

All seven practitioners identified a critical benefit: blueprints enable teams to surface problems, false assumptions, and impossible constraints before committing significant resources to development. This preventative function operationalizes the principle that

pivoting on paper is dramatically cheaper than pivoting in market. Participant 2 captured this succinctly: "The sooner you can find out something doesn't work." Participant 5's team validates problem-solution fit before company incorporation, moving risk to zero during the design phase rather than after building.

The preventative function operates through several mechanisms. First, the act of mapping forces assumptions to become explicit. When a team maps the customer journey, the operational processes required, the required partnerships, and the economic model, implicit assumptions become visible. The blueprint asks: Who exactly is our customer? How will we reach them? What specifically will they pay for? If the team cannot answer these questions clearly, the blueprint surfaces the gap. Participant 3's example of a deep tech project illustrates this. After 18 months of technology development, the blueprint exercise revealed that critical questions remained unanswered: Who will pay? How much? What is the total addressable market? These questions should have been answered before committing 18 months to development, and the blueprint made clear that they had been neglected.

Second, explicit mapping enables targeted validation. Rather than pursuing customer discovery in ad hoc fashion, a blueprint of the customer discovery process clarifies what information is needed, from which customer segments, to test which assumptions. Participant 5's approach exemplifies this: his team frames customer validation as a disciplined exercise focused on de-risking, not as general exploration. The blueprint clarifies precisely what assumptions must be validated before advancing to the next stage.

Third, the collaborative process of creating a blueprint surfaces disagreement. If the team members have different understandings of who the customer is, what problem is being solved, or how the venture will make money, these disagreements become apparent during blueprint development. These disagreements are painful to surface but infinitely better to surface during planning than to discover during development. Participant 4 emphasized that blueprints should be collaborative, not pre-filled templates imposed on teams. When teams create blueprints together, disagreement surfaces and gets resolved while it is still possible to change direction without massive waste.

The preventative function extends to operational feasibility testing. In the gastronomic products venture, mapping revealed that time-to-delivery was critical and that the venture's operational design must prioritize speed over cost. This discovery could have been made

through building, testing, and failing in market. Instead, it was discovered through careful mapping, allowing the team to design operations around speed requirements from the beginning. Participant 7's backcasting methodology extends this principle to regulatory and technological futures, asking not just "Does this work today?" but "Does this work under the regulatory and technological conditions we expect to face in 5-10 years?"

The tension here is that early detection requires upfront investment. Some ventures might move faster by starting development immediately and learning through building. The practitioners acknowledge this: for ventures in highly familiar domains with proven teams, building-first might be faster. For ventures in unfamiliar domains, the upfront investment in careful mapping typically saves far more time downstream.

5.3.3 Function 3: Coordination Compression and Cross-Functional Alignment (Cluster 3)

The third mechanism through which blueprints accelerate time-to-market is coordination compression. When teams understand the venture architecture, the critical dependencies, and their individual roles within the system, coordination becomes more efficient. Teams with different specializations, technical, operational, commercial, can work more effectively together because they share a common reference point.

The alignment function addresses what Participant 3 called the "vocabulary problem." Corporate teams and startup teams use the same words but mean different things. A "launch" to a corporate might mean a funded, scaled operation with full support infrastructure. A "launch" to a startup might mean the moment first customers can access a minimum viable product. Blueprints force explicit definition of such terms, reducing misalignment and rework born from different interpretations.

The data shows this operating concretely. Participant 1 noted that user story mapping (common in software development) shows customer experience but not operational reality. A team might design an elegant customer experience without understanding what operational complexity is required to deliver it. Blueprints that map both customer experience and behind-the-scenes operations force technical and operations teams to reason together about what is actually feasible. Participant 2 described using blueprints to align corporate partnerships on expectations, showing exactly where new technology would integrate with existing systems, preventing scope creep and surprise incompatibilities.

This alignment function prevents rework born from misunderstanding. Participant 4 illustrated this with the funeral services venture, where mapping made clear that different stakeholders (death notification, paperwork, casket selection, transport, ceremony, disposition) required different entities and had dependencies on prior steps. Without this clarity, different team members might have worked toward incompatible goals, generating rework. With the blueprint, the team understood their interdependencies and coordinated accordingly.

The alignment function also enables what Participant 6 described as studio-level coherence. When a venture studio manages multiple ventures simultaneously, a shared blueprint of resource flow, founder development, and market opportunity prevents different ventures from pulling in incompatible directions or duplicating effort. The studio's core roles, entrepreneur, operator, investor, align around a common picture of what each venture needs.

The limitation here is that alignment blueprints can become over-specified, constraining teams rather than enabling them. Participant 4 emphasized that blueprints must serve as guidelines that creative teams adapt, not checklists that teams mechanically execute. The best outcomes occur when teams maintain ownership of the blueprint and adjust it as learning accumulates. Blueprints that become rigid constraints risk losing the agility and responsiveness that ventures need.

5.4 Limitations and Validity

The findings reported here should be interpreted within clear recognition of the study's limitations. These limitations shape both the strength of claims that can be made and the conditions under which findings are most likely to hold true.

5.4.1 Sample Size and Self-Selection Bias

The study draws on seven semi-structured interviews conducted with practitioners who had either directly experienced service blueprinting or actively expressed interest in service design approaches. This small sample size limits statistical generalizability. The self-selection of participants who are already predisposed toward blueprinting or design thinking introduces bias toward positive views of blueprinting. A comprehensive study of venture builders' time-to-market would benefit from larger sample sizes and more diverse inclusion criteria.

Furthermore, the practitioners interviewed represent particular domains and geographies. Most interviews were conducted in Northern Europe with practitioners focused on technology, digital services, and sustainability ventures. Findings may not transfer directly to other geographies, cultures, or industries. Capital-intensive ventures in biotechnology or manufacturing may face different constraints than the technology ventures represented in the data. The generalizability of findings should be understood as conditional on similarity to the contexts in which the original research was conducted.

5.4.2 Lack of Quantitative Time-to-Market Data

This research does not include quantitative measurements of time-to-market. Instead, it relies on practitioners' qualitative assessments, which are subject to recall bias and selective interpretation. Practitioners may overstate the benefits of blueprinting because they invested effort in creating blueprints and want to justify that investment. Alternatively, practitioners may understate benefits because the comparison group (ventures that did not blueprint) is counterfactual rather than observed. A more rigorous study would measure time-to-market quantitatively and compare ventures that used blueprinting to control groups that did not.

The research also captures only practitioners' perceptions of time-to-market impact, not the actual timing of key events. When Participant 6 reported that ecosystem mapping reduced execution time by "weeks for sure," this is his assessment, not verified through project timeline analysis. Stronger evidence would come from comparing actual launch dates of blueprinted versus non-blueprinted ventures, controlling for other variables affecting speed.

5.4.3 Researcher Positionality and Interpretive Choices

As a qualitative researcher analyzing practitioner interviews, I made numerous interpretive choices about what constituted evidence, what themes were significant, and how themes should be organized. These choices reflect my perspective, shaped by my familiarity with service design theory, Theory of Constraints thinking, and new service development research. A researcher with different theoretical backgrounds might interpret the same interview data differently, emphasizing different themes or drawing different conclusions about mechanisms.

Additionally, my positionality as someone sympathetic to design thinking and service design methods may bias me toward interpreting ambiguous evidence as supporting blueprinting. I

have attempted to mitigate this through explicit attention to disconfirming evidence, cases where blueprinting did not deliver expected benefits, situations where practitioners modified blueprinting substantially, and tensions that practitioners identified. However, this self-awareness does not eliminate the bias entirely.

5.4.4 Confounding Variables and Alternative Explanations

The findings attribute time-to-market improvements to blueprinting, but multiple alternative explanations are plausible. Practitioners who blueprint might be systematically more thoughtful about venture development than practitioners who do not. They might have stronger teams, clearer customer understanding, or more favorable market conditions. The blueprinting itself might be less important than the planning discipline and stakeholder engagement that blueprinting facilitates. The benefits observed might reflect better venture builders choosing to blueprint, rather than blueprinting making good builders better.

The study does not include control groups or comparison conditions that would allow causal attribution. Rigorous causal analysis would require either randomized assignment to blueprint-or-not-blueprint conditions (ethically questionable in the venture context) or sophisticated quasi-experimental design with careful matching of ventures on relevant variables.

5.5 Implications for Practice

Despite these limitations, the findings offer concrete guidance for practitioners making decisions about when and how to implement service blueprinting in venture building.

5.5.1 When to Blueprint

Service blueprinting is most valuable when ventures face genuine uncertainty about customer needs, operational feasibility, or business model viability (Korper et al., 2020; Magyari & Secomandi, 2023). If the founding team has deep domain knowledge, has worked together previously, and operates in a familiar market, the upfront time investment in blueprinting may not be justified. The team might move faster by starting development immediately and learning through building. However, when ventures are forming in unfamiliar domains, when teams are new to each other, or when the market conditions are uncertain, blueprinting typically prevents far greater delays downstream.

Blueprinting is also more valuable for ventures with multiple work streams, numerous stakeholder dependencies, or complex operational models (Jalote-Parmar et al., 2023). A simple software product built by a small technical team might not benefit much from blueprinting. A venture requiring regulatory approval, multiple partnerships, and complex operational scaling typically benefits greatly from clear visualization of how these pieces interconnect. Participant 6's studio ventures, which operate in complex ecosystems with multiple capital sources and partner dependencies, benefited significantly from ecosystem mapping that ventures in simpler environments might not need.

Blueprinting is particularly valuable when ventures must explain their strategy to external stakeholders, investors, corporate partners, advisors, early employees. A shared blueprint becomes a communication artifact that ensures stakeholders understand the venture's strategy the same way. Participant 1's team developed "offer letters" that were essentially blueprints used to set customer expectations about what would be delivered at each stage. This communication function provided value independent of internal alignment benefits.

5.5.2 When Not to Blueprint

Conversely, there are conditions where extensive blueprinting consumes more time than it saves. When markets are so new that ecosystem dynamics are genuinely unpredictable, blueprints help organize thinking but cannot eliminate underlying uncertainty. Participant 7 acknowledged that in emerging climate tech spaces, regulatory trajectories are unknown and technology pathways remain unproven. Blueprints help identify which assumptions are most critical to validate, but they carry the risk of providing false certainty. A detailed blueprint can create the impression that a venture is well-understood when the underlying assumptions remain untested. In such domains, treating the blueprint as a provisional map rather than a confirmed plan is essential. In such domains, light-touch blueprinting (high-level architecture, identification of key unknowns) is more appropriate than comprehensive blueprinting.

Similarly, when the venture is pursuing a very familiar problem that the team has solved before, extensive blueprinting may be redundant. The team's mental models are already well-developed. Blueprinting's value as a shared reference is reduced when the team already shares deep common ground. The faster path might be to move directly to execution, with periodic team sync-ups rather than upfront planning.

5.5.3 How to Implement Effectively

The research suggests several principles for implementing blueprinting effectively. First, blueprints should be created collaboratively, not imposed by management or downloaded from templates. When teams create blueprints together, disagreements surface and get resolved while change is still possible. When blueprints are handed down from above, they generate resentment and may be mechanically followed rather than thoughtfully used. Participant 4 emphasized this repeatedly: blueprints should be guidelines that teams own and adapt, not checklists to dutifully complete.

Second, blueprints should match the venture's stage and uncertainty level. Early-stage ventures might benefit from high-level architectural blueprints that show essential structure while leaving implementation specifics open. Later-stage ventures, especially those preparing for scaling or regulatory approval, might benefit from more detailed blueprints showing specific processes, handoffs, and decision criteria. Participant 7's multi-level backcasting approach illustrates this: different horizons (0-to-1, 1-to-10, 10-to-100) require blueprints at different levels of detail.

Third, blueprints should be treated as living documents, not finished artifacts. As the venture learns, the blueprint should evolve. The most successful practitioners described their blueprints as continuously updated rather than created once and then filed away. Participant 1's team revisits blueprints after each venture launches. Participant 5's team refines their engagement frameworks based on what they learn from each founder engagement. This iterative updating prevents blueprints from becoming disconnected from reality.

Fourth, blueprints should be complemented by explicit governance about decision-making authority, escalation paths, and how disagreements will be resolved. Participant 3's observation about the "pendulum between freedom and control" applies here. Ventures that are control-oriented need detailed blueprints specifying what should happen. Ventures that are freedom-oriented need lighter blueprints focused on big-picture strategy while execution remains flexible. Neither approach is wrong; what matters is matching blueprint detail and specificity to the venture's governance philosophy.

Finally, blueprints should be used as conversation starters, not conversation enders. The blueprint's value is not in the diagram itself but in the thinking, discussion, and alignment that creating and using the blueprint enables. The moment a team becomes mechanically

attached to a blueprint and uses it to block emerging learning or stakeholder input, the tool becomes a liability. The best outcomes occur when teams treat blueprints as thought partners that enable clearer thinking rather than as prescriptions that must be followed exactly.

6. CONCLUSION

6.1 Summary of Main Findings

In answer to the primary research question, "How does a service blueprint accelerate the time-to-market of the venture-building process?", the findings demonstrate that acceleration occurs through three specific mechanisms. The investigation moved through multiple stages, grounding the inquiry in existing theory before examining practitioners' lived experience with blueprinting. The findings suggest that blueprinting's value depends critically on context, implementation, and honest assessment of when upfront planning pays dividends.

The primary finding is that service blueprints accelerate time-to-market through three specific mechanisms. First, blueprints provide structural clarity about roles, dependencies, and sequence that make complex venture systems comprehensible and manageable. This clarity enables reusability, facilitates common language across specializations, and reveals interdependencies that would otherwise remain hidden. Second, blueprints enable preventative decision-making by surfacing false assumptions and operational constraints early, before significant resources are committed to development. Pivoting on paper is dramatically cheaper than pivoting in market, and blueprints enable ventures to discover critical problems during planning rather than during development. Third, blueprints compress coordination overhead by creating shared reference points that reduce misalignment between teams with different expertise and perspectives.

These three mechanisms operate simultaneously and reinforce each other. Structural clarity enables better problem detection. Better problem detection enables faster, clearer decisions. Clearer decisions reduce coordination friction. The cumulative effect is movement toward market with fewer detours, less rework, and greater team confidence about the path forward. Practitioners reported that this acceleration translated to time savings measured in months, not marginal efficiency improvements. Participant 6 reported that ventures completing upfront ecosystem mapping avoided month-six surprises that would have triggered major pivots. Participant 2 described discovering in planning that a business case would not work at certain scales, preventing investment in a facility that would have failed in market.

Each sub-question was addressed through the empirical findings. SQ1, concerning how practitioners conceptualize time-to-market, was explored across all six clusters and revealed

that speed in venture building is understood not as calendar time alone but as the reduction of unnecessary iteration, rework, and coordination overhead. SQ2, examining specific ways blueprints clarify work and prevent rework, was addressed primarily through Clusters 1, 2, and 3, which describe how structural clarity, early detection, and cross-functional alignment reduce ambiguity. SQ3, identifying at which stages blueprinting adds the most value, was addressed through Clusters 4 and 5, revealing that blueprinting is most valuable during the fuzzy front end and at stage transitions where dependencies are highest. SQ4, concerning barriers to effective blueprinting, was addressed through Cluster 6, which identified tensions around overhead, rigidity, and context-dependent utility. SQ5, examining how blueprinting relates to other frameworks, was addressed through Cluster 5 and the Discussion chapter, where connections to lean startup approaches and business model tools were examined.

However, this acceleration is not automatic or universal. Blueprinting requires upfront investment. Creating a quality blueprint demands customer conversations, stakeholder mapping, difficult conversations about assumptions, and time spent visualizing rather than building. For ventures in highly familiar domains with proven teams and clear markets, this upfront time may delay overall launch compared to moving immediately to development and learning through iteration. The key finding is therefore conditional: blueprints accelerate ventures that face uncertainty about customer need, operational feasibility, or business model viability. For such ventures, the prevention of downstream delays typically justifies the upfront time investment. For ventures in well-understood domains, building-first approaches may be faster.

A secondary finding is that blueprinting operates at multiple organizational levels simultaneously. Individual ventures benefit from blueprints showing their own service model, customer journey, and operational architecture. Venture studios benefit from ecosystem blueprints showing how multiple ventures interconnect, where capital flows, where founder talent sources, and what market demand sits. Corporate innovation initiatives benefit from blueprints that bridge freedom and control, providing structure without becoming oppressive. The level of detail and formality appropriate for blueprinting varies by context, but the core function, making thinking explicit and testable, holds across contexts.

A third finding is that service blueprinting terminology and adoption remain highly variable. Five practitioners described essentially similar practices, mapping work flows, visualizing

dependencies, surfacing constraints, but called them by different names: value chains, patient journeys, engagement agreements, ecosystem maps, backcasting. This variation suggests that the underlying practice is powerful and widely adopted, but standardization remains limited. Some ventures adopt blueprinting because they recognize its value; others stumble upon similar practices independently. Terminology matters because shared language enables learning transfer, when practitioners call their tools "service blueprints," they can access service design literature and learn from service design communities. When similar practices go by different names, valuable insights remain siloed.

A fourth finding is that service blueprinting operationalizes abstract management theories and makes them actionable. Theory of Constraints, though intellectually compelling, remains difficult to apply without concrete visibility into system flow. Blueprints make constraints visible, enabling the focused constraint relief that Theory of Constraints prescribes. New Service Development frameworks provide valuable structure, but stage gates can feel abstract without concrete specification of what progress means at each stage. Blueprints make stage progression concrete. Fuzzy front end management addresses the challenge of structure without premature lock-in, but this balance is difficult to achieve in practice. Blueprints enable explicit visualization of learning strategies without overcertain specification of outcomes. In each case, blueprinting serves as a bridge between abstract theory and concrete practice.

Finally, the research reveals significant tensions that practitioners must navigate. Blueprints can accelerate development, but they can also constrain flexibility if applied too rigidly. Blueprints create shared understanding, but they require upfront investment that some ventures cannot afford. Blueprints help identify constraints, but they cannot eliminate uncertainty in nascent technology domains. Blueprints support stage-gated progression, but this structure must flex to accommodate the spiraling, non-linear development that characterizes many ventures. Rather than dismissing these tensions, the most effective practitioners work within them, using blueprints lightly when uncertainty is highest, more formally as the venture progresses and assumptions solidify, and remaining always ready to discard or substantially modify the blueprint when learning demands it.

6.2 Contributions to Theory and Practice

This research contributes to understanding at both theoretical and practical levels.

6.2.1 Theoretical Contributions

First, this thesis provides empirical evidence that service design, as a discipline, has direct applicability to the venture building context. While service design literature has documented blueprinting as a valuable tool for established service organizations, its application to early-stage ventures remained largely unexamined. This thesis demonstrates that the core principles of service design thinking, including customer-centered systems visualization, cross-functional co-creation, and iterative design of service ecosystems, are not only applicable to venture building but address specific problems that conventional management frameworks alone cannot resolve. The three accelerative mechanisms identified (structural clarity, preventative decision-making, and coordination compression) emerge from the service design orientation of treating ventures as service systems rather than as financial or product entities alone. This positions service design as a contributing discipline to entrepreneurship and venture building, not merely a toolkit borrowed from an unrelated field.

Second, the thesis extends service design theory by demonstrating blueprinting's applicability beyond traditional service industries to venture building contexts. Patrício et al. (2018) articulated the concept of service ecosystem mapping, suggesting that blueprints could operate at scales beyond single service transactions. This research provides empirical evidence that ecosystem blueprints function effectively in venture studio contexts, where multiple ventures, funding sources, talent pools, and market opportunities must be coordinated. Participant 6's studio-level ecosystem mapping and Participant 2's value chain mapping demonstrate blueprinting at scales and in contexts that extend service design's traditional domain.

Third, the thesis contributes to understanding the fuzzy front end by showing that structure and flexibility are not opposites but can coexist. Fuzzy front end management has traditionally presented a tension: too much structure kills learning, too much flexibility prevents progress. Blueprinting addresses this tension by enabling teams to be structured about process (how will we learn?) while remaining flexible about outcomes (what we will learn remains open). This insight may help resolve a persistent challenge in innovation management.

Fourth, the research contributes to understanding how abstract management concepts become operationally actionable. Scholars have long noted a theory-practice gap, where compelling management theories remain difficult to implement. This thesis provides detailed evidence about how one specific tool, service blueprinting, bridges this gap by translating constraints into visible bottlenecks, stages into concrete deliverables, and uncertainty into explicit learning strategies. Understanding how tools translate theory into practice may improve implementation of other theoretical frameworks.

6.2.2 Practical Contributions

First, this thesis provides venture builders and venture studio operators with a practical framework for assessing when blueprinting is likely to accelerate development and when its upfront costs are not justified. Rather than prescribing blueprinting universally, the thesis identifies conditions under which blueprinting is most valuable: ventures in unfamiliar domains, ventures with new teams, ventures with complex ecosystems, ventures with multiple stakeholder dependencies. This conditional framing helps practitioners make wise decisions about tool adoption rather than slavishly following advice to blueprint everything.

Second, the thesis offers guidance about how to implement blueprinting effectively. The research shows that blueprinting works best when treated as a collaborative thinking tool rather than a rigid template, when created by teams rather than imposed by management, when iterated as learning accumulates rather than completed once and filed away, and when matched to the venture's governance philosophy. This implementation guidance moves beyond blueprinting mechanics to address organizational and social dimensions that determine whether tools become useful or burdensome.

Third, the research highlights the value of explicit mapping and visualization in reducing coordination overhead and accelerating decision-making. Even practitioners who do not formally adopt the term "service blueprint" can benefit from adopting the underlying practice: making thinking explicit through visualization, surfacing assumptions through mapping, testing feasibility through diagramming. The underlying practice appears valuable even without formal adoption of service design terminology.

Fourth, the thesis contributes to venture studio operations by providing evidence that ecosystem mapping at the studio level can prevent individual ventures from missing critical dependencies or remaining disconnected from studio resources. Participant 6's ecosystem

map showing capital sources, founder talent, and market demand demonstrates how studio-level thinking prevents ventures from optimizing locally while missing system-level constraints. Venture studios seeking to improve their supporting function for portfolio ventures should consider ecosystem mapping as a tool for studio-level coordination.

Finally, the research contributes to service design education by showing how service design thinking can strengthen entrepreneurship. Most service design education focuses on established organizations designing services for customers. Most entrepreneurship education focuses on business models and customer discovery. The intersection, service design applied to venture building, remains underdeveloped. This thesis provides educators with evidence that service design thinking is valuable in entrepreneurial contexts and can strengthen venture builders' work. Service design educators might consider entrepreneurial contexts as important domains for their work; entrepreneurship educators might recognize service design tools as valuable additions to their pedagogical toolkit.

6.3 Recommendations for Future Research

The limitations of this research suggest several directions for future investigation that would strengthen and extend understanding of how blueprinting influences venture development.

6.3.1 Quantitative Time-to-Market Studies

This research is qualitative, relying on practitioners' assessments of blueprinting's impact. Rigorous quantitative studies comparing ventures that use blueprinting to matched control groups would provide stronger evidence about actual time-to-market differences. Researchers could measure time from initial concept to first customer, time from fundraising decision to capital secured, time from stage gate completion to next stage initiation, and other concrete metrics. These quantitative comparisons, controlling for confounding variables like founder experience, market familiarity, and team size, would provide evidence about actual time savings attributable to blueprinting rather than practitioner perceptions.

6.3.2 Longitudinal Studies Following Individual Ventures

The current research captured practitioners' retrospective assessments. Longitudinal studies that follow ventures over time, tracking blueprinting decisions and subsequent outcomes, would provide richer data about how blueprinting influences development trajectories.

Researchers could observe ventures during planning to see what blueprinting decisions are made, then follow development to see which predicted outcomes actually materialize, which assumptions prove wrong, and how planned blueprints actually adapt. This process tracing would illuminate not just whether blueprinting helps but specifically how it influences development dynamics over time.

6.3.3 Comparative Studies Across Industries

This research focused primarily on technology, digital services, and sustainability ventures. Comparative studies examining blueprinting in fundamentally different industries, biotechnology, manufacturing, healthcare, financial services, would reveal whether the benefits and limitations identified here hold across contexts or whether industry-specific factors substantially change blueprinting's value. Capital-intensive ventures with longer development timelines might benefit more from planning-intensive approaches. Highly regulated ventures might require more formal blueprinting for compliance purposes. Service-intensive ventures might benefit from blueprinting differently than product-intensive ventures. Comparative studies would illuminate these contextual variations.

6.3.4 Studies of Blueprinting in Corporate Innovation Contexts

Participant 3 and others observed significant differences between corporate innovation initiatives and independent ventures. Corporations have risk-averse governance structures, established processes, and hierarchical decision-making. How does blueprinting function differently in corporate contexts compared to startup contexts? Do the same mechanisms (structural clarity, preventative decision-making, coordination compression) operate, or do different mechanisms become salient? Focused studies of corporate innovation using blueprinting would illuminate whether blueprinting's benefits are context-specific or generalizable.

6.3.5 AI-Augmented Blueprinting and Blueprinting for AI-Native Companies

As artificial intelligence tools become increasingly capable of analyzing complex information and generating visualizations, researchers might investigate whether AI-augmented blueprinting, where algorithms help venture teams generate initial blueprints from customer interview data, business model specifications, or operational requirements, could accelerate the blueprinting process itself. If blueprinting's main cost is the time

required to map the system, AI tools that generate initial blueprints (which humans then refine) might preserve benefits while reducing upfront time investment. Research exploring this direction would be timely and practically valuable.

A second direction concerns service blueprinting for AI-native companies. These ventures embed AI models at the core of service delivery, which raises questions the traditional blueprint format was not designed to answer. Where does an AI agent sit on a blueprint, on the frontstage, the backstage, or as a support process, and how should its decisions be made visible to teams and customers? How should blueprints represent the boundary between deterministic system behavior and probabilistic AI behavior? How should they capture model limitations, fallback paths, and the human review steps that shape user experience? Research that examines how venture teams adapt service blueprints for AI-native services would extend the method into a category of ventures that is rapidly becoming dominant.

6.3.6 Research on Blueprinting and Pivoting

This research noted that blueprinting enables early detection of problems that trigger pivots. Future research could focus specifically on how blueprinting influences pivot decisions. Are teams that blueprint more likely to pivot earlier? Do they pivot more strategically (addressing the true constraint) or more chaotically? Does blueprinting accelerate post-pivot recovery by clarifying the new direction? Focused studies on this dimension would illuminate blueprinting's impact on venture adaptation, which might be as important as its impact on initial development speed.

6.3.7 Studies of Service Blueprint Adoption in Venture Ecosystems

The research noted high variability in blueprinting adoption and terminology. Future research could examine what determines whether venture ecosystems (specific cities, regions, or venture communities) adopt service blueprinting terminology and methodologies versus developing alternative names and practices. Are ecosystems that adopt formal service design language more successful at supporting ventures? Does knowledge of service design theory improve adoption of blueprinting? Does formal training in service design methodology increase adoption and success? These ecosystem-level questions remain unanswered.

6.4 Final Reflection

Service blueprints can accelerate venture development, but not automatically, not universally, and not without thoughtful application. They work best as thinking tools that make assumptions explicit, dependencies visible, and constraints manageable. They work best when teams own them, when they remain open to iteration, and when they serve teams rather than constrain them. They work best when implemented with clear-eyed assessment of what concrete problem the blueprint will solve and what concrete evidence will show whether it solved it.

The seven practitioners whose voices guide this research are not advocates for a particular tool. They are thoughtful practitioners navigating genuine uncertainty, seeking every advantage that can accelerate progress toward market while maintaining the flexibility to learn and adapt. They adopted blueprinting or similar mapping practices because these tools solved real problems: they made complexity comprehensible, surfaced hidden constraints, enabled cross-functional alignment, and supported faster decision-making. They abandoned or modified blueprinting when it became rigid or served management control rather than team clarity. They adopted blueprinting flexibly, matching tool intensity to uncertainty level.

This is the model that future venture builders should consider. Not "always blueprint," not "never blueprint," but "blueprint thoughtfully, understanding when it will help and what alternative approaches might be faster in different conditions." With this conditional, pragmatic stance, service blueprinting becomes one valuable tool in the venture builder's toolkit rather than a silver bullet or a burdensome requirement.

The intersection of service design and entrepreneurship remains underdeveloped. As entrepreneurship becomes increasingly complex, involving multiple stakeholders, distributed teams, and intricate dependencies, the visualization and coordination tools that service design has developed become ever more valuable. Conversely, as service design increasingly operates in complex, uncertain ecosystems, the lean startup principles that entrepreneurship has developed become ever more relevant. Future work at this intersection, by service design practitioners learning entrepreneurship methods, by entrepreneurs learning service design tools, and by researchers bridging both fields, will likely strengthen both communities. This thesis offers an early contribution to that intersection, and the three-function accelerative model provides a starting point for both practitioners seeking to move faster and researchers seeking to understand why.

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APPENDICES

Appendix 1: Interview Questions

Background and Role

Can you describe your current role and specific responsibilities within the venture-building process?

What is your level of experience with service blueprinting and other venture-building frameworks?

Conceptualization of Time-to-Market (TTM)

How do you and your team conceptualize time-to-market within the venture-building process?

What factors do you believe are most critical for accelerating this timeline?

Clarification, Ambiguity, and Rework

In what ways did the service blueprint help clarify work or reduce ambiguity for the team?

How did the use of a blueprint influence cross-functional alignment and the reduction of rework?

Which specific bottlenecks or constraints were identified or resolved through the blueprinting process?

Value by Development Stage

At which specific development stage of the venture-building process did the service blueprint add the most value?

Were there any stages where the tool felt less effective or provided minimal impact?

Barriers and Implementation Challenges

What were the primary barriers or implementation challenges encountered when using the service blueprint?

How did the team address skepticism or practical difficulties during the implementation phase?

Relation to Other Frameworks

How does service blueprinting relate to other frameworks you utilize, such as Lean Startup or the Business Model Canvas?

In what ways do these different methodologies complement or conflict with one another?

Conclusion

Reflecting on our discussion, how does a service blueprint accelerate the time-to-market of the venture-building process?

Are there any additional insights you would like to share regarding the efficiency of the venture-building process?

Appendix 2: Consent Form

Research Title: Service Blueprints and their Role in Accelerating Time-to-Market in Venture Building

Researcher: Evan Palmejar (Erasmus Mundus Master's Program in SDSI)

Supervisor: Kiwoong Nam

Purpose: I understand this research aims to explore how service blueprinting impacts the speed of venture development.

Voluntary Participation: I understand that my participation is voluntary, and I may withdraw at any time without providing a reason.

Confidentiality: I understand that my name and my organization's name will be anonymized. All data will be stored securely and destroyed after the thesis defense.

Data Usage: I agree that the information I provide (interview transcripts, survey responses, or artifacts) may be quoted or referenced in the final Master's Thesis and related academic publications.

Recording: I consent to the audio/video recording of the interview for transcription and analysis purposes.

Participant Agreement:

I confirm that I have read and understood the information for the above study.

I have had the opportunity to consider the information and ask questions.

I agree to take part in the above study.

Name of Participant: _____

Date: _____

Signature: _____

Researcher Signature: _____

Contact: evbpalmejar@gmail.com