

ADOPTING A ROADMAPPING PROCESS TO IMPROVE STRATEGIC
PLANNING FOR SMES: A CASE STUDY OF A SMALL CREATIVE COMPANY
IN THE USA.



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ABSTRACT

Roadmapping is a strategy alignment tool prevalently applied in larger organizations that still needs to be explored in the context of Small and Medium Enterprises (SMEs). The research investigates the potential benefits and challenges associated with the SMEs' adoption of the roadmapping approach to enhance their strategic planning processes. The thesis outlines the case of an owner-entrepreneur-led, creative company and aims to build an understanding of how SMEs can effectively employ roadmapping to uncover strategic issues and opportunities. With this work, the researcher seeks to identify practical insights into the adaptability and effectiveness of roadmapping tools for SMEs and the unique considerations that arise in creative industries by engaging the owner-entrepreneur and key stakeholders in the roadmapping process.

The findings offer valuable insights into how roadmapping facilitates a proactive approach to identifying and exploring strategic issues and opportunities within the SME. Moreover, the results enrich the academic discourse on strategic planning in SMEs and provide actionable guidance for owner-entrepreneurs and managers seeking to leverage roadmapping for sustained growth and competitiveness in today's dynamic business landscape.

*Keywords: Roadmapping, Strategic Planning, SME, Owner-Entrepreneur Led,
Creative Company*

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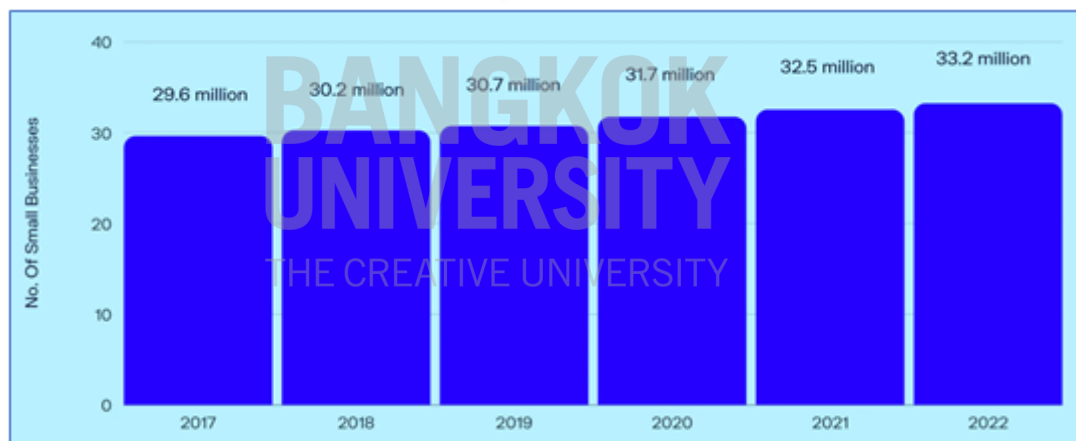
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CHAPTER 1

INTRODUCTION

Small and medium-sized enterprises (SMEs) play a vital role in the US economy. While there is no universally agreed-upon definition of an SME, the Small Business Administration (SBA) in the United States typically categorizes businesses based on their number of employees or annual revenue. A small business is thus defined as those with fewer than 500 employees. SMEs are significant contributors to the US economy. According to the SBA, small businesses accounted for 47.3% of private sector employment and generated about 44% of US economic activity in 2020 (Figure 1.1).

Figure 1.1: Number of Small Businesses in the US from 2017 to 2022



Source: *How many small businesses are there in the US in 2023?* (2023). Retrieved January 12, from <https://www.oberlo.com/statistics/number-of-small-business-in-the-us>.

Furthermore, SMEs are often at the forefront of innovation and competitiveness, driving economic growth and job creation. They often play a vital role in supporting and sustaining local communities, including businesses that are

owned by women, minorities, veterans, and individuals from various ethnic backgrounds, contributing to economic diversity and inclusion.

However, SMEs typically have fewer resources and are less prepared to address changes in the external business environment. Factors such as economic conditions, industry trends, and policy changes can have a major impact on their growth and performance.

The pandemic has had a significant impact on businesses worldwide, and SMEs, who are often less prepared to navigate a crisis, have been particularly vulnerable (Fairlie, 2020). The early impact of the pandemic on small businesses is shown in table 1.1. Despite the Biden Administration's \$1.9 trillion COVID-19 relief bill to support the US economy, there were 200,000 more SME closures in the pandemic's first year than usual.

Table 1.1: Impact of Early Pandemic on Small Business in the US

Industry	February 2020	Changes in number			
	Number	Percent	Feb.-Apr. (%)	Feb.-May (%)	Feb.-Jun. (%)
Agriculture	869,661	6	7	16	14
Construction	2,436,057	16	-27	-19	-8
Manufacturing	566,192	4	-11	-26	-2
Wholesale trade	260,151	2	-14	1	5
Retail trade	1,068,484	7	-10	-2	-1
Transportation	798,325	5	-22	-12	-1
Information	235,847	2	-10	-19	-20
Financial activities	1,301,769	9	-12	-6	-1
Professional and business services	3,295,875	22	-18	-10	-7

(Continued)

Table 1.1 (Continued): Impact of Early Pandemic on Small Business in the US

Industry	February 2020	Changes in number			
	Number	Percent	Feb.-Apr. (%)	Feb.-May (%)	Feb.-Jun. (%)
Educational services	329,544	2	−39	−10	−25
Health services	1,238,335	8	−16	−18	−8
Arts, leisure, hotels	685,009	5	−35	−35	−31
Restaurants	409,605	3	−22	−24	−13
Repair and maintenance	512,403	3	−25	−22	−29
Personal and laundry services	926,409	6	−79	−48	−26
"Nonessential" industry	3,675,939	24	−38	−28	−17
"Essential" industry	11,336,752	76	−17	−10	−5

Source: Fairlie, R. (2020). The impact of COVID-19 on small business owners:

Evidence from the first three months after widespread social-distancing restrictions. *Journal of Economics & Management Strategy*, 29(4), 727–740.

The ability to adapt quickly to changes, resilience, and strategic decision-making are crucial elements to survival. Due to limited access to capital and socio-economic disparities, women and minority-owned businesses are more vulnerable than others. The disproportionate early impact of the pandemic on minority owned businesses is illustrated in table 1.2.

Table 1.2: Number of Active Business Owners by Demographic Group

Group	Feb. 2020	Apr. 2020	May 2020	June 2020	Feb.–Apr. change		Feb.–May	Feb.–June
	Number	Number	Number	Number	Number	Percent	Percent	Percent
Total	15,012,692	11,710,360	12,809,946	13,794,081	–3,302,331	–22	–15	–8
Female	5,389,399	4,048,205	4,517,965	4,876,392	–1,341,194	–25	–16	–10
Male	9,623,293	7,662,156	8,291,981	8,917,689	–1,961,137	–20	–14	–7
Black	1,079,116	637,769	798,668	872,717	–441,347	–41	–26	–19
Latinx	2,070,896	1,412,925	1,668,254	1,855,026	–657,971	–32	–19	–10
Asian	888,528	657,896	700,393	798,811	–230,632	–26	–21	–10
White	10,553,415	8,761,531	9,373,304	10,001,462	–1,791,884	–17	–11	–5
Immigrant	3,120,275	2,009,597	2,329,820	2,545,926	–1,110,677	–36	–25	–18
Native	11,892,417	9,700,763	10,480,126	11,248,155	–2,191,654	–18	–12	–5

Source: Fairlie, R. (2020). The impact of COVID-19 on small business owners:

Evidence from the first three months after widespread social-distancing restrictions. *Journal of Economics & Management Strategy*, 29(4), 727–740.

1.1 Rationale and Problem Statement

It is extensively documented that strategic planning leads to increased firm performance. Yet, the majority of SMEs do not take a proactive approach to planning, especially those SMEs that are owner-entrepreneur-led. For the majority of SME owner-managers, business performance is often seen as less important than intangible goals such as autonomy, personal satisfaction, and lifestyle. Strategic planning may therefore have little value to owner-operators driven by such motivators (Wang, Walker, & Redmond, 2007).

The roadmapping process can play a significant role in strategic planning by providing a structured and visual representation of an organization's goals, strategies, and initiatives over a specific time horizon (Phaal, Farrukh, & Probert, 2005).

Major shifts in the global market environment due to reduced and changed consumer behaviors, supply chain issues, and rising costs have caused the need for companies to rethink their value propositions and use of resources to address new demands. Strategic planning is needed to anticipate external changes in the short-, mid-, and long-term, even for small companies.

SMEs have more limited human, material, and financial resources (Banham, 2010; McAdam & Kelly, 2002; Vossen, 1998). SMEs typically operate in dynamic and uncertain markets. Uncertainty about future economic conditions, customer preferences, technological advancements, and competitive landscapes can make it challenging to develop effective long-term strategies, which is why they typically focus on short terms goals rather than planning for needed changes due to external influences in the market environment (Banham, 2010; McAdam & Kelly, 2002; Vossen, 1998).

Access to reliable market data and insights is crucial for informed strategic decision-making, but SMEs often have limited access to comprehensive market research and data analytics resources (Woods & Joyce, 2003). This lack of information can impede their understanding of market trends, customer behavior, and competitive dynamics, making it challenging to develop effective strategies.

SMEs may face internal resistance to change from employees or stakeholders, mainly if strategic planning involves significant organizational or operational changes (Ates & Bititci, 2011). Overcoming resistance and fostering a culture of adaptability and openness to change can be a significant challenge for SMEs.

SMEs often struggle to balance short-term operational needs with long-term strategic goals. Pressing day-to-day issues and the need for immediate revenue generation may divert attention away from strategic planning, leading to a lack of alignment between short-term actions and long-term objectives (Kraus & Reschke, 2005). To overcome these difficulties, SMEs often seek external support from consultants or industry experts, invest in staff training and development, collaborate with other organizations, and leverage technology solutions to enhance their strategic planning capabilities.

1.2 The Objective of the Research

The objective of this paper is to investigate how small companies can improve their strategic planning process through the use of roadmapping. Through a case study for a small design company, this research uses a top-down approach through workshops with the management team of the company. The application of the roadmapping process to assist a small business with its strategic planning was chosen as the basis for the research because it encourages dialogue and consensus building among key stakeholders, which should result in more robust planning and ownership of the output.

The targeted innovation for this research is a practical framework to promote better strategic planning for SMEs as drivers of economic activity and employment, enabling them to grow and increase their performance.

This paragraph outlines the central research question (RQ) that aims to understand how to choose and design a roadmapping approach to establish and maintain a strategic roadmap for an SME in the creative services industry.

RQ: To what extent can the road mapping process be used successfully for a small owner-managed creative company, that has limited resources?

RQ₁: What challenges will be encountered when applying this approach for an owner-entrepreneur led creative agency?

RQ₂: How to design a roadmap for an SME that has business units with a different maturity level?

RQ₃: How can existing tools be integrated within the road mapping process?

A workshop-based process, using roadmap templates, was chosen to build a visual temporal representation of the strategic and innovation opportunities that were discovered through the dialogue in a series of workshops. This follows the 'S-Plan' approach, providing a coherent structure and common language to guide discussion and capture views in an active, creative hands-on process (Phaal, 2020). Figure 1.2 shows an example of how a typical roadmapping template can provide a structured framework for guiding discussion and capturing views in a workshop.

Figure 1.2: Typical “S-Plan” Road Mapping Workshop



Source: Phaal, R. (2020). *Roadmapping for strategy and innovation*. Cambridge: University of Cambridge.

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Representatives of the company's management team are invited to discuss potential changes in the market environment that can lead to new challenges, as well as opportunities for new value propositions. The viability and feasibility of these opportunities are then assessed in the light of available resources and capabilities, the need for technology, and investment, resulting in a first draft strategic roadmap. The participants then discussed the roadmapping process to see what could be learned and improved for the future.

1.3 Significance of the Research

The outcome and insights gained from this research could support the application and understanding of strategic roadmapping for small companies that have largely been ignored in the research to date (Arshed, Finch, & Bunduchi, 2012; Gindy, Cerit, & Hodgson, 2006).

Strategic roadmapping for small companies has indeed been an area that has not received extensive attention in research up to now. While roadmapping methodologies have been widely utilized across different organizations, including small businesses, the specific focus on strategic roadmapping for small companies has been limited in academic research (Foss & Saebi, 2017; Kerr & Phaal, 2020).

The case study offers an approach to avoid the founder's trap in SMEs (Banham, 2010) by enabling all key stakeholders in the company to participate through roadmapping in order to go beyond short-term incremental thinking. The owner-entrepreneur trap in SME strategic planning involves challenges like lack of systematic planning, reliance on intuition over formal planning, and the need for a balance between creativity and structured approaches. SME owners often face obstacles in strategic planning due to their central role, aversion to formal methods, and the necessity for immediate reactions to environmental changes. This dynamic requires a nuanced approach to strategic management that aligns with the SME's flexibility and the owner's managerial qualifications (Lum, 2017).

This workshop-based process ensures joint ownership and buy-in to the identified business development opportunities and organizational change needed to address challenges and pursue opportunities from the key stakeholders going forward.

1.4 Definition of Terms

Roadmapping: The roadmapping activity is a structured visual mapping methodology to establish a strategic roadmap to support strategy, long-term planning, innovation, and foresight activities (Kerr & Phaal, 2022). Roadmapping is the application of a temporal-spatial structured strategic lens (Phaal, Farrukh, & Probert, 2007).

Roadmap: A roadmap is a structured visual chronology of strategic intent (Phaal et al., 2007) that addresses the following questions:

- 1) Why do we need to act?
- 2) What should we do?
- 3) How can we achieve it?
- 4) When do we need to respond?
- 5) Who should be involved?
- 6) Where should it happen?

Human-Centered Design: Human-centered design is a problem-solving technique that draws on insights from real people to enable design solutions that resonate and are tailored to the user's needs. The design process focuses on understanding the needs, behaviors, and experiences of the people who will be using the final product or service (Cooley, 2000; Rouse, 2007).

SME: Small and Medium-sized Enterprises is a term used to categorize businesses based on their relatively small size and operational scale. However, there is a lack of a universal definition of what constitutes an SME (Berisha & Pula, 2015). While the thresholds can differ, they generally encompass businesses that are larger than micro-enterprises but smaller than large corporations. The US Small Business Council defines an SME as having less than 500 employees.

Business Strategy: Business strategy refers to a set of plans, decisions, and actions designed to achieve a company's long-term goals and objectives. It involves analyzing the internal and external environment, understanding market dynamics, identifying opportunities and challenges, and formulating a comprehensive plan to position the business for success (Shapiro, 1989).

A business strategy outlines how a company intends to compete in the marketplace, create value for its customers, and achieve sustainable growth. It encompasses various aspects, including product or service offerings, target market segments, competitive positioning, pricing strategies, distribution channels, marketing and promotional activities, resource allocation, and organizational structure (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002).

CHAPTER 2

LITERATURE REVIEW

This chapter provides theoretical support for the concepts used in this thesis. The chapter intends to establish research gaps and problems with existing knowledge to determine what the research could most usefully address. The first part of this chapter provides a definition and overview of the interior design industry as a whole and looks into how the human design-centered design as a particular approach can be used to provide a better user experience of the designed space. Following this, the chapter addresses strategic planning concepts and considers issues faced by SMEs to take a more long-term approach to their thinking.

2.1 Interior Design

Interior design is the art and science of enhancing the interior space of a building to achieve a more aesthetically pleasing and functional environment. It involves the arrangement and selection of furniture, color schemes, lighting, textures, materials, and other elements to create a harmonious and appealing atmosphere within a space (Brooker and Stone, 2010; Dodsworth and Anderson, 2015; Pile, 1988).

Interior designers utilize their creativity and knowledge of design principles to transform a space into one that meets the needs and preferences of its occupants. They consider factors such as the purpose of the space, the available area, the desired mood or ambiance, and the specific requirements of the client (Banham, 1997). Interior design encompasses a wide range of spaces, including residential homes, offices, retail stores, hotels, restaurants, healthcare facilities, and public spaces. It aims to create environments that are not only visually appealing but also functional, comfortable, and supportive of the occupants' well-being (Cooper, Boyko, & Codinhoto, 2010; Smith, Metcalfe, & Lommerse, 2012).

2.1.1 Human-Centered Design

Human-centered design (HCD) is an approach to problem-solving and product development that focuses on understanding the needs, behaviors, and experiences of the people who will be using the final product or service. It places the human perspective at the center of the design process, ensuring that solutions are

tailored to meet the users' specific requirements and preferences (Cooley, 2000; Rouse, 2007), which often involves collaboration among designers, engineers, researchers, and other stakeholders. By bringing together diverse perspectives and expertise, the design team can create more holistic and innovative solutions.

Designers strive to understand the needs, motivations, and behaviors of the people they are designing for. This involves conducting research, observing users in their natural environments, and engaging in direct conversations and interviews (Putnam, Sungkhasettee, & Roediger, 2016).

The HCD process is based on Design Thinking that emerged from an exploration of theory and practice in the 1950s and 1960s, as designers, engineers, and cognitive scientists began converging on issues driven by significant societal changes at the time.

In the 1960s, the "design methods movement" saw the development of participatory design methodologies, which aimed to integrate human, technological, and strategic needs (Dam & Teo, 2022). Scholars like John E. Arnold, Bruce Archer, and Horst Rittel laid the foundations for understanding "design thinking" as a distinct way of knowing and problem-solving.

In the 1980s and 1990s, design theory shifted towards a more reflective, "soul-searching" phase, with a focus on understanding the cognitive processes of designers. Concepts like "wicked problems" and "designerly ways of knowing" emerged during this period.

The term "design thinking" was popularized in the 2000s, particularly by IDEO, which described it as a "human-centered, creative approach to problem solving." Design thinking then spread rapidly across industries and disciplines, though its meaning and depth of application has varied.

The Double Diamond process model, adapted from the divergence-convergence model proposed in 1996 by Hungarian-American linguist Béla H. Bánáthy, and popularized by the British Design Council in 2005, is widely used in the design thinking. It is based on the concept of divergent and convergent thinking, represented by two diamonds. The first diamond focuses on exploring an issue widely or deeply (divergent thinking), while the second diamond emphasizes taking focused

action (convergent thinking). The double diamond process consists of four key phases:

Discover: In this phase, the focus is on understanding the issue by engaging with and spending time with people affected by it.

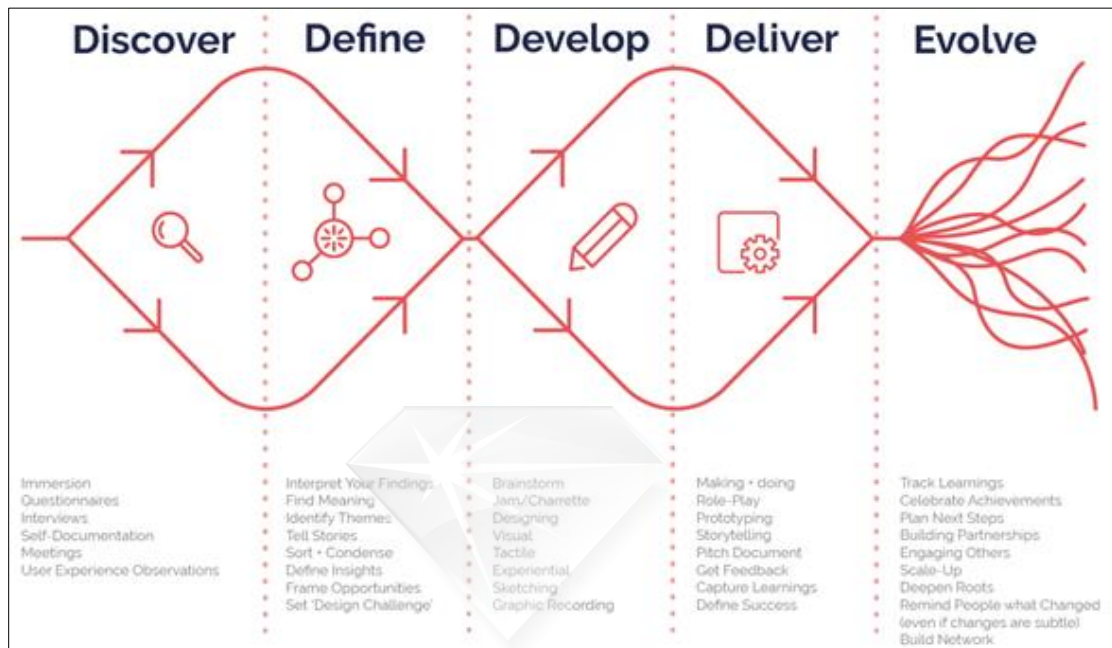
Define: Building on insights from the discovery phase, the challenge is redefined in a different way.

Develop: Different solutions are generated for the clearly defined problem, drawing inspiration from various sources and involving collaboration with diverse individuals.

Deliver: Various solutions are tested on a small scale, with unsuccessful ones rejected and successful ones improved for implementation.

The Double Diamond model, illustrated in figure 2.1, serves as a visual representation and guide for understanding design problems and communicating solutions effectively. It is a flexible framework that can be adapted to different projects, clients, or problems, allowing for iterative and tailored approaches to design challenges (Gustafsson, 2019). The model aims to foster creativity, innovation, and structured problem-solving within the design process, guiding designers through a systematic yet adaptable journey from problem exploration to solution delivery (Saad, Elekyaby, Ali, & Hassan, 2020).

Figure 2.1: Double Diamond Design Process



Source: *What the hell is human centered design.* (2019). Retrieved January 12, from <https://yellcreative.com/what-is-human-centred-design/>.

Human Centered Design, that uses Design Thinking, is an iterative process, with frequent feedback loops and prototyping (Garcia-Lopez, Mor, & Tesconi, 2020). Users are actively involved throughout the design process, from initial research and ideation to testing and evaluation. Their insights and feedback are crucial in shaping the final design and ensuring that it meets their needs effectively. Designers create multiple versions of a product or service, test them with users, gather feedback, and refine the designs based on the insights gained. This iterative process allows for continuous improvement and refinement (Metzker & Offergeld, 2001).

By understanding users' needs and incorporating their feedback, human-centered design can help create products and services that genuinely address their requirements, resulting in higher user satisfaction. Furthermore, HCD ensures that products and services are intuitive, easy to use, and accessible to a wide range of users, including those with disabilities or special needs.

By focusing on user insights and involving users throughout the design process, HCD encourages innovative thinking and can give organizations a competitive edge by delivering products that stand out in the market (Chayutsahakij, 2000; Nguyen et al., 2022; Vechakul, Shrimali, & Sandhu, 2015).

Overall, human-centered design places the user at the heart of the design process, ensuring that products and services are truly tailored to their needs, desires, and capabilities. It fosters empathy, collaboration, and iterative improvement, ultimately resulting in more impactful and user-centric solutions (Nguyen et al., 2022).

2.1.2 Experiential Graphic Design

Experiential graphic design (EGD) is a multidisciplinary practice that combines various design disciplines, such as graphic design, environmental design, architecture, industrial design, and interaction design, to create immersive and memorable experiences within physical spaces. It focuses on the integration of visual, spatial, and interactive elements to enhance the overall user experience and communicate information effectively (Austin, 2020; Calori & Vanden-Eynden, 2015). Figure 2.2 shows an example of an immersive environment that aims to provide visual distraction for children in a hospital, so that they get their mind of the procedure they are about to undergo, and thus be more relaxed.

Figure 2.2: Immersive Environment at Nationwide Children's Hospital



Source: *Nationwide children's finding a multi-sensory oasis where you'd least expect it.* (2023). Retrieved January 12, from <https://lfstudios.com/work/nationwide-childrens/>.

EGD encompasses a wide range of design elements, including signage, wayfinding systems, environmental graphics, exhibitions, interactive installations, themed environments, and digital media. The goal is to create cohesive and engaging experiences that help people navigate and understand their surroundings, communicate messages, evoke emotions, and enhance brand identity (Calori & Vanden-Eynden, 2015).

EGD often involves considering factors such as human behavior, cognitive psychology, user interaction, and cultural context to design solutions that are intuitive, visually appealing, and functional. It may involve the use of typography, symbols, colors, materials, lighting, technology, and other visual and sensory elements to create a holistic experience.

Figure 2.3: EGD Used to Aide Way Finding in Transportation



Source: *Designing great custom floor graphics for your business.* (2023). Retrieved January 12, from <https://pixelodesign.com.au/custom-floor-graphics/>.

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Examples of experiential graphic design can be found in various settings, including public spaces, museums, airports, retail environments, corporate offices, educational institutions, and healthcare facilities (Lawrence, 2016; Griswold & Zamani, 2019). Figure 2.3 shows an example of the use of supergraphics on the floor and walls that aid people to find their way through a transportation center. By incorporating storytelling, interactive elements, and a user-centered approach, EGD aims to create meaningful and immersive experiences that leave a lasting impression on individuals.

2.2 Strategic Planning

Strategic planning is a systematic process undertaken by organizations to define their long-term goals and objectives and to develop a plan of action to achieve them. It involves analyzing the organization's current situation, assessing the external environment, setting priorities, and making decisions on resource allocation. Strategic planning provides a roadmap for the organization to follow and helps align its activities with its overall mission and vision (Andersen, 2000; Falshaw, Glaister, & Tatoglu, 2006; Rudd, Greenley, Beatson, & Lings, 2008; Steiner, 2010; Nickols, 2016). There is no consensus of what the stages of the strategic planning process for businesses are (Albrechts & Balducci, 2013; Holmberg & Robert, 2000; Quong & Walker, 2010; Steiner, 2010; Tafti, Jahani, & Emami., 2012). The following table 2.1 shows the key planning stages based on my interpretation of the literature.

Table 2.1: Strategic Planning Stages

Planning Stage	Activities
1. Analysis of Strategic Position	<ul style="list-style-type: none"> - Conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to understand the internal and external environment - Perform a PESTLE (Political, Economic, Social, Technological, Legal, Environmental) analysis to identify factors affecting the business - Gather input from executives, customers, and market data to assess the company's strategic position
2. Developing a Vision	<ul style="list-style-type: none"> - Establish a clear, long-term vision for the company that serves as the foundation for the strategic plan - Ensure the vision is aligned with the current market conditions and adaptable to changes
3. Developing a Mission Statement	Craft a mission statement that defines the company's purpose and guides its strategic objectives

(Continued)

Table 2.1 (Continued): Strategic Planning Stages

Planning Stage	Activities
4. Establishing Organizational Values	Identify the core values and principles that will guide the company's decision-making and behavior
5. Setting Goals and Objectives	<ul style="list-style-type: none"> - Translate the vision into specific, measurable, and time-bound goals and objectives - Ensure goals are realistic and aligned with the company's capabilities and resources
6. Developing Action Plans	<ul style="list-style-type: none"> - Outline the specific actions, timelines, and responsibilities required to achieve the strategic goals - Allocate resources and budget accordingly to support the implementation of the strategic plan
7. Communicating the Plan	Involve employees in the strategic planning process to foster alignment and accountability
8. Monitoring and Updating	<ul style="list-style-type: none"> - Regularly review and update the strategic plan to adapt to changing market conditions and ensure continued relevance - Track progress against the goals and make adjustments as needed to stay on course

Source: Steiner, G. A. (2010). *Strategic planning*. New York: Simon & Schuster.

The strategic planning process for SMEs is an iterative and collaborative effort that aligns the company's vision, mission, and values with its strategic objectives and operational plans.

In order to prepare for the future planning phase, it is important to evaluate the organization's internal strengths and weaknesses, as well as external opportunities and threats from market trends, competition, regulatory factors, and technological advancements. These assessments (SWOT Analysis) help identify opportunities and

challenges that may impact the organization's strategic direction, as well as areas where the organization has a competitive advantage and areas that need improvement (Houben, Lenie, & Vanhoof, 1999). Figure 2.4 shows Gretzky's example from 2010 for a health care system, illustrating how internal strengths can lead to identifying opportunities in the external environment. Likewise, understanding internal-driven weaknesses can help inform how to develop action plans to try and go after.

Figure 2.4: Example of SWOT Analysis



Source: Gretzky, W. (2010). Strategic planning and SWOT analysis. *Essentials of Strategic Planning in Healthcare*, 91-97.

A firm can then set specific, measurable, attainable, relevant, and time-bound goals in line with its mission, vision, and long-term aspirations. The identified initiatives can be broken down into actionable steps, and resources (financial, human, technological) can be allocated in a way that supports the priorities and goals of the organization. The strategic plan should then be communicated across the organization to ensure understanding and obtain buy-in from key stakeholders.

Strategic planning is an ongoing process that requires continuous monitoring of it's relevance to changes in the external environment, followed by regular deliberate reviews to evaluate and adaptation to stay responsive to changing circumstances and to maintain the organization's competitive edge.

2.2.1 Strategic Planning and SMEs

SMEs often operate in a fast-paced and highly competitive environment, requiring them to focus on day-to-day operations and immediate challenges. This leaves limited time for strategic planning, as owners and managers may find it difficult to dedicate sufficient time and attention to long-term planning.

Furthermore, SMEs frequently struggle to balance short-term operational needs with long-term strategic goals (Table 2.2). Pressing day-to-day issues and the need for immediate revenue generation may divert attention away from strategic planning, leading to a lack of alignment between short-term actions and long-term objectives (Kraus & Reschke, 2005).

Table 2.2: Characteristics of SMEs

Problems:	Opportunities:
Limited resources, time and means	High customer proximity
Limited know-how and methodological knowledge	High market knowledge
Focus mainly on only one market or product	Strong influence by the entrepreneur (engine of change)
Potential overload for management	High identification and motivation of employees
	Quick implementation possible

Source: Kraus, S., & Reschke, C. H. (2005). The role of strategic planning in SMEs: Literature review and implications. *Journal for Management Theory & Practice*, 10(39), S. 31-38.

On the other hand, SMEs typically operate in dynamic and uncertain markets. Uncertainty about future economic conditions, customer preferences, technological advancements, and competitive landscapes can make it challenging to develop effective long-term strategies (Banham, 2010; McAdam & Kelly, 2002; Vossen, 1998).

Access to reliable market data and insights is crucial for informed strategic decision-making, but SMEs often have limited access to comprehensive market research and data analytics resources (Woods & Joyce, 2003). This can impede their ability to understand market trends, customer behavior, and competitive dynamics, making it difficult to develop effective strategies.

Small and Medium Enterprises (SMEs) often also lack the in-house expertise required for effective strategic planning. Small business owners and managers may not possess the necessary skills and knowledge in strategic management, market analysis, or forecasting, which are critical for formulating and implementing a robust strategic plan. While SMEs, especially, those SMEs led by an owner-entrepreneur, often have more visionary strategic management than older, larger firms, this may also be a barrier for implementation of robust planning systems (Table 2.3). They typically have limited financial, human, and technological resources compared to larger corporations. This constraint makes it challenging to allocate resources for strategic planning activities (Cordeiro, 2013).

Table 2.3: Enterprise Characteristics and Strategic Planning vs. Management

	Small, Young	→	Established, Large, Old
Business Model	Unproven		Proven
Organization	Flexible		Inflexible
Resources	Scarce		Abundant
Complexity	External		Internal
Employees	Dedicated		Unmotivated
Customers	Elusive		Captured

(Continued)

Table 2.3 (Continued): Enterprise Characteristics and Strategic Planning vs. Management

	Small, Young →	Established, Large, Old
Strategic imperative DO	Lean, network and prove yourself Visionary Strategic Management	Differentiated and defend Strategic Planning
NEED	(More) Planning	(More) Visionary Strategic Management

Source: Kraus, S., & Reschke, C. H. (2005). The role of strategic planning in SMEs: Literature review and implications. *Journal for Management Theory & Practice*, 10(39), S. 31-38.

Resistance to change: SMEs may face internal resistance to change from employees or stakeholders, particularly if strategic planning involves significant organizational or operational changes (Ates & Bititci, 2011). Overcoming resistance and fostering a culture of adaptability and openness to change can be a significant challenge for SMEs.

To overcome these difficulties, SMEs can seek external support from consultants or industry experts, invest in staff training and development, collaborate with other organizations, and leverage technology solutions to enhance their strategic planning capabilities.

2.3 Road Mapping

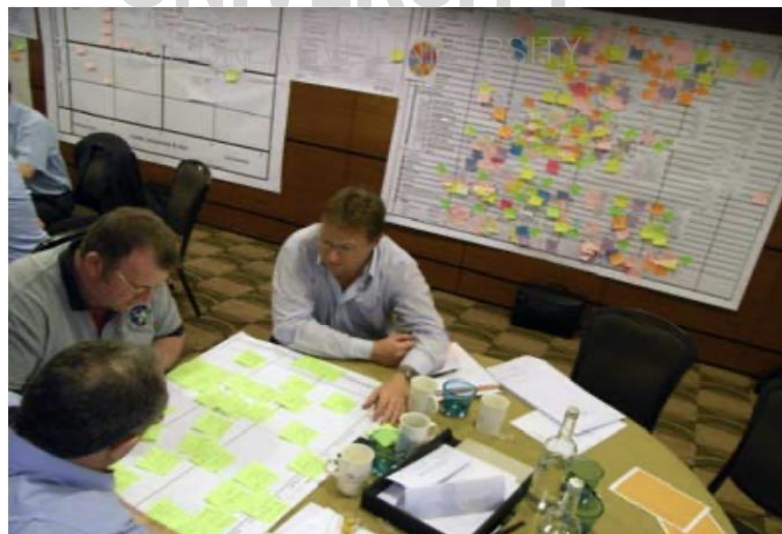
Roadmapping is a strategic planning technique used by organizations to outline and visualize the path forward for a project, product, or entire business. It involves creating a roadmap, which is a visual representation of key goals, milestones, and activities over a specific time frame. Technology roadmapping was originally developed by Motorola in the 1980s (Willyard & McClees, 1987) to support

improved alignment between technology and product development, providing a structured visual representation of their strategy.

Over the last 30 years, this approach has been adopted globally across a wide range of domains and by organizations at a company, market sector, and national levels to address a variety of challenges/initiatives and organizational contexts (Kerr & Phaal, 2021) through planning and alignment. The roadmapping process has been used to suit different needs and objectives, such as innovation, strategy and policy development.

The most frequently cited benefit of this approach is that it fosters communication across functional and organizational silos, as it builds consensus between the various key stakeholders and perspectives (Phaal, 2020; Vatananan-Thesenvitz, & Gerdri, 2012) and helps organizations to align their long-term goals with actionable steps and provide a clear vision of how to achieve those goals. Figure 2.5 shows the active, hands-on involvement of participants discussing ideas and challenges that were captured on sticky notes.

Figure 2.5: The Act of Road Mapping



Source: Kerr, C., & Phaal, R. (2021). Roadmapping and roadmaps: Definition and underpinning concepts. *IEEE Transactions on Engineering Management*, 69(1), 6-16.

The output of this process is a roadmap, which facilitates informed decision-making by providing a comprehensive view of priorities, dependencies, and resource allocation. Table 2.4 shows typical content of a strategic roadmap, based on my research.

Table 2.4: Typical Roadmap Content

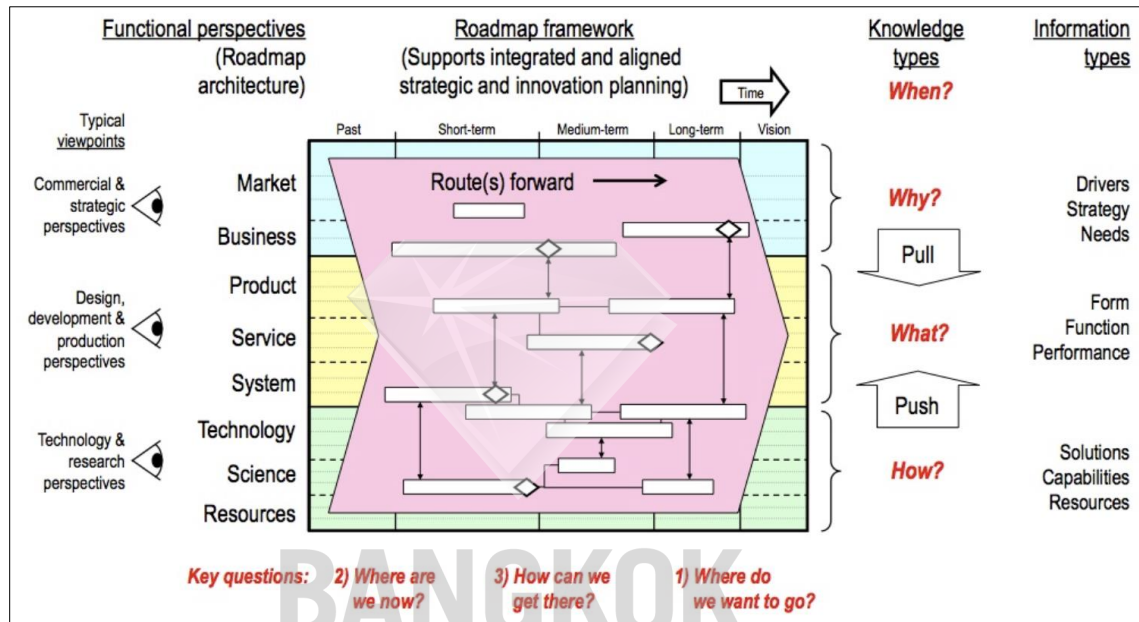
Objectives and goals	The overarching purpose and desired outcomes of the project or product.
Timeline	The sequence of activities and milestones over time.
Milestones	Significant achievements or events that mark progress toward the goals.
Activities	The specific tasks or initiatives that need to be undertaken to reach the milestones and achieve the desired goals.
Dependencies	Relationships or dependencies between different activities or milestones.
Resources and budget	The required resources, such as personnel, budget, equipment, or technologies, necessary to execute the activities and achieve the goals.
Key stakeholders	The individuals or groups who have an interest or influence in the project or product.

Source: Phaal, R., Farrukh, C. J. P., & Probert, D. R. (2007). Strategic roadmapping: A workshop-based approach for identifying and exploring strategic issues and opportunities. *Engineering Management Journal*, 19(1), 3–12.

In essence, a roadmap serves as a visual tool to communicate plans and progress to stakeholders, teams, and other involved parties. Kerr and Phaal (2021) defined a roadmap as "a structured visual chronology of strategic intent," which

enables teams to make data-driven choices when faced with competing initiatives or constraints. This is illustrated in Figure 2.6.

Figure 2.6: Schematic Multi-layered Roadmap



Source: Phaal, R. (2020). *Roadmapping for strategy and innovation*. Cambridge: University of Cambridge.

2.3.1 Roadmapping for Strategic Planning

An organization can develop and implement a roadmapping process to assess the impact of changes in the external environment and to establish a corporate strategy to ensure its survival (Vatananan-Thesenvitz & Gerdri, 2012). As discussed, the activity of roadmapping can foster collaboration and ensure everyone is on the same page regarding objectives and timelines. Roadmapping is a powerful and flexible technique to support strategic planning on multiple levels and in a wide range of situations. The roadmapping approach is flexible and scalable and can be customized in terms of both its framework design, as well as its process to suit many different strategic and innovation contexts (Phaal, Farrukh, Mitchell, & Probert,

2003). However, this demands careful planning and design, including consideration of roadmap structure, process, and participation (Phaal & Muller, 2009).

Roadmaps are dynamic in nature, as they need to be adjusted and revised as new information becomes available or circumstances change. They provide a framework for responding to unforeseen challenges or opportunities, which makes roadmapping a valuable technique for strategic planning, project management, and product development, allowing organizations to visualize their future direction and chart a course toward success (Whalen, 2007).

2.3.2 Implementation Process of Strategic Roadmapping

As explained by Gerdson (2010), the implementation of the strategic roadmapping can lead to organizational as well as changes in the company's culture, therefore it would be wise to apply a change management approach. The process starts with setting clear goals and objectives to make sure desired outcomes are achieved within a set timeframe.

The next step is get input from organizational leaders and stakeholders to understand their diverse perspectives and insights, but also to get the necessary buy-in and support to the initiative. At the same time, in-depth market research is done to glean pertinent data regarding industry trends, competitive landscapes, and consumer preferences. This approach ensures a holistic understanding of the external environment, thereby informing subsequent strategic decisions.

Subsequently, it is necessary to organize the potential initiatives into coherent themes based on patterns and insights that can be gleaned from empirical data. By categorizing initiatives according to thematic consistency, organizations can foster alignment with overarching strategic objectives, thereby enhancing coherence and increase success in execution.

Next, the organization's leadership will have to judiciously prioritize and allocate resources to those initiatives deemed most critical for the attainment of strategic goals. At the same time, time frames and deadlines need to be agreed to create a sense of urgency and accountability, thereby expediting progress and fostering momentum towards realization.

Continuous monitoring and periodic review of progress against the strategic roadmap serve as indispensable mechanisms for adaptive response to emerging challenges and opportunities, ensuring the relevance and efficacy of the strategic endeavors.

2.4 Literature Review Summary

This chapter has reviewed the theories and literature that are relevant to the research proposal. The application of the roadmapping process to assist a small business with its strategic planning was chosen as the basis for the research because it encourages dialogue and consensus building among key stakeholders, which should result in more robust planning and ownership of the output.

Thus, the targeted innovation for this research will be something that can help promote better planning for SMEs as drivers of economic activity and employment, enabling them to grow and increase their performance. The next chapter explains how to achieve this outcome in the context of the proposed research.

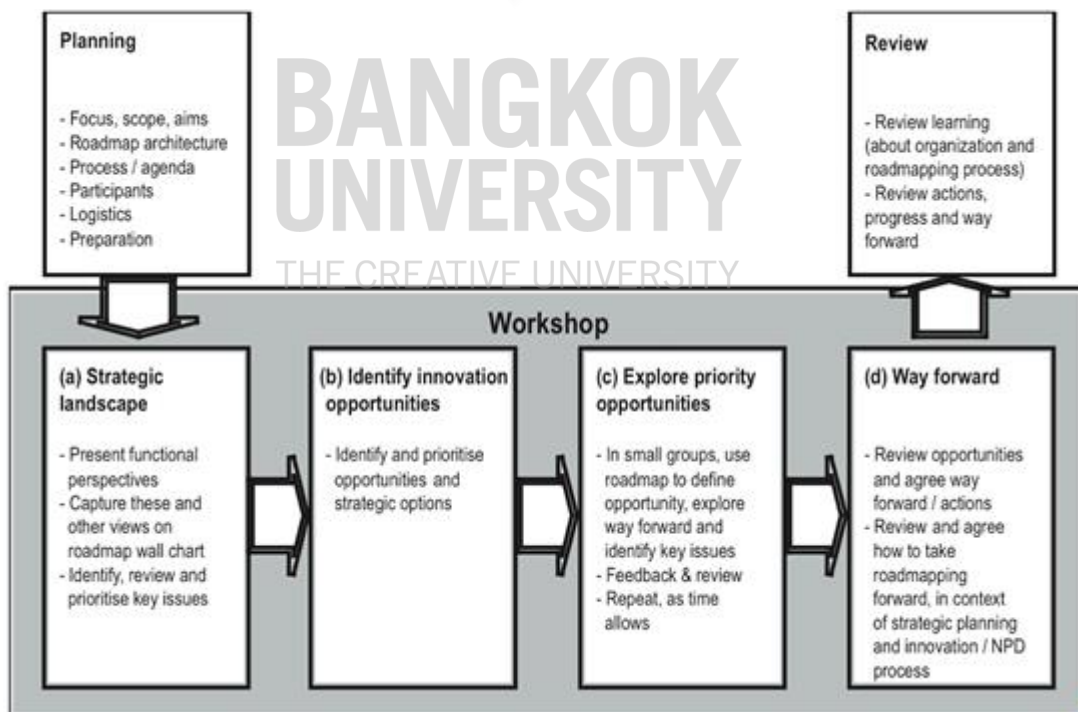
CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

This chapter describes how the roadmapping approach is used to assist a company in developing its corporate strategies at different levels. Throughout the roadmapping process, the tool helps the firm generate appropriate strategic objectives and goals linked to its external and internal business environment.

This research employs the S-Plan workshop-based process for a strategic appraisal introduced by Phaal et al. (2007). The researchers intend to assess the feasibility and challenges of integrating the workshop-based roadmapping approach into the strategic planning framework of a small creative agency (Figure 3.1).

Figure 3.1: S-Plan Workshop Process for Strategic Appraisal



Source: Phaal, R., Farrukh, C. J. P., & Probert, D. R. (2007). Strategic roadmapping: A workshop-based approach for identifying and exploring strategic issues and opportunities. *Engineering Management Journal*, 19(1), 3–12.

This chapter aims to outline and discuss the individual elements and steps in the process used to achieve the research objective mentioned in Section 1.2. Primary data will be collected through stakeholder interviews and roundtable discussions in workshops attended by the company's senior management. Additionally, secondary data collection, which is used to support the roundtable discussion in the workshops, will be obtained via desktop-based external scanning of the business environment as well as the review of internal documents to understand the firm's capabilities and resources.

First, the case study company is described, followed by a description of the primary and secondary research methods.

3.1 Case Study Company

This research applies the roadmapping process to a case study evaluating a small creative company from the USA. Since 1990, the company has offered design services in the emerging field of Experiential Graphic Design (EGD). Recognizing the potential for data-driven design approaches, the firm expanded its services in 2010 to include sentiment analysis. Providing insights into how the users of healthcare facilities experience the spaces seemed like the right place to start, as the patient and family feedback impacts the healthcare system's compensation. An initial partnership with an extensive healthcare system became a decade-long longitudinal study. This study yielded valuable insights into user sentiment by measuring the pre- and post-project perceptions of patients, families, and staff regarding the spaces they used. The hospital leveraged the resulting insights to guide capital investments and achieve a sustainable return on investment (ROI).

With the acquisition of a local architectural interior design firm in 2018, the company diversified and expanded its services further. Recognizing that the increasing diversity in markets and sectors required a different management structure, the company reorganized into three business units in 2022: EGD, Insights, and Interiors.

The EGD Business Unit is a mature business with stable revenue, but it shows limited growth potential due to how the work is delivered. The work is labor intensive and will require a much more complex organization to service more

accounts. The Insights Business Unit, which focuses on the experience and intersection of people, process, and place, shows tremendous growth potential across markets and sectors other than workplace and health care. Potential passive revenue could come from global markets, but this will require investment in technology. In addition, ensuring IP protection becomes especially critical when a company licenses its methodologies and tools to others. Due to the global post-pandemic discussion on hybrid workplace models, the Interiors Business Unit focuses on the corporate workplace, showing increased demand for Insights and Interior Design.

Leveraging healthcare-derived insights models, the company achieved robust validation within the corporate workplace, subsequently establishing itself as a market differentiator and experiencing rapid business growth. Notably, revenue for this business unit skyrocketed by 67% in fiscal year 2022, now contributing 30% to the company's total revenue. The interior business unit requires rapid scaling to capitalize on this surging demand.

By engaging the owner-entrepreneur and essential stakeholders in the internal and external process, the research seeks to identify practical insights into the adaptability of a roadmapping approach and its tools for SMEs and the unique considerations that arise in the context of creative industries. Key objectives include:

- 1) evaluating the effectiveness of roadmapping in facilitating strategic decision-making.
- 2) enhancing technology development alignment.
- 3) fostering a proactive approach to identifying and exploring strategic issues and opportunities within the SME.

The key reason for selecting this company was the owner-manager goal of transferring ownership and transitioning into a legacy company that would live on after the owner eventually retired from her responsibilities as president and CEO.

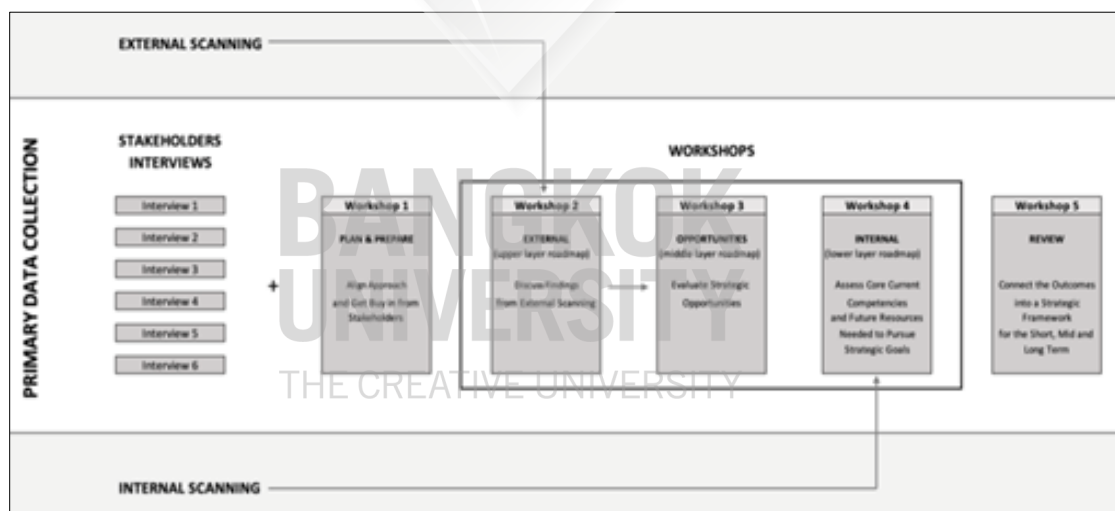
To avoid narrow insights and perspectives from working exclusively with the company's owner and managers, the researchers proposed to interview members of the Board of Advisors, who are industry experts in their field but at the same time have enough knowledge of the company to provide valuable insights into how changes in the external market might impact the company. The researchers interviewed four board members and two independent experts in the workplace and

healthcare fields. The roadmapping workshops were conducted with the company's owner and the managers of the three business units, evaluating the information obtained from external scanning and interviews.

3.2 Roadmap Development

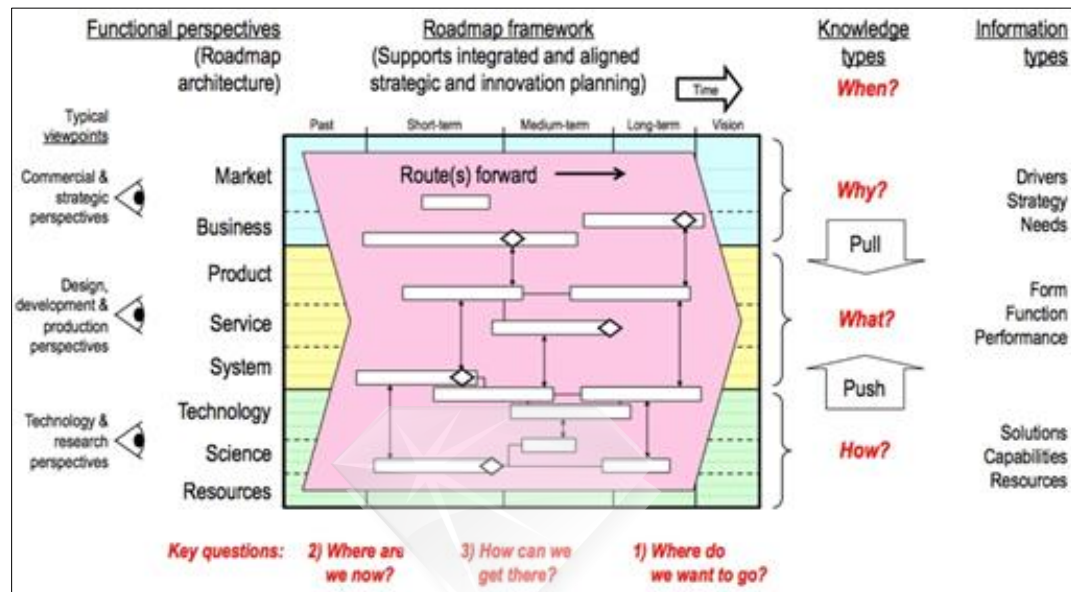
As explained in chapter 2, it was critical to gain insights and alignment from the company's leadership and stakeholders. The researchers presented a simplified five-step process (Figure 3.2), adapted from the S-Plan approach to Participants and stakeholders.

Figure 3.2: Data Collection Set Up



A key objective for the road mapping process design was to show results early. To gain buy-in from the company's leadership and maintain momentum, it was deemed critical that each workshop would have clearly defined objectives, scope, outcomes, and tools to be used. This approach would allow the researchers to track data collection against defined milestones and simultaneously show the company's leadership the progress made at each stage in the strategic road mapping process.

Figure 3.3: Schematic Multi-Layered Roadmap



Source: Phaal, R. (2020). *Roadmapping for strategy and innovation*. Cambridge: University of Cambridge.

Based on Phaal's (2020) multi-layered roadmap structure, as shown in Figure 3.3, a simplified visual framework consisting of three layers—the top layer for external market drivers, the middle layer for opportunities and strategic goals, and the bottom layer for internal company resources and competencies—was proposed to serve as the background for the discussions.

The result of the initial alignment of what the structure of the roadmap should look like is shown in Figure 3.4.

Figure 3.4: Initial Roadmap Design

External Environment	Economic Factors			
	Political Factors			
	Environmental			
	Legal			
	Cultural & Social Trends			
	Technology			
	Competitors			
Opportunities				
Internal: Resources & Capabilities	Intellectual Property			
	Capital Investment			
	Staff / Skills			
	Customer Service			
	Technology			
	Culture			
	Brand Reputation			
What		Short-Term	Mid-Term	Long-Term

3.3 Stakeholder Interviews

The first method to collect primary data uses semi-structured, in-depth interviews to build a trusting relationship with key stakeholders, which is necessary to understand their current processes and utilization of existing tools for their strategic planning. As part of the roadmapping process, the researcher will observe how their attitudes toward strategic planning in a synchronized manner will change.

Direct participation in the roadmapping process is typically limited to a relatively small group of representatives as compared to the wider audience and broader spectrum of stakeholders that are both influenced and impacted by a roadmap (Kerr & Phaal, 2021).

Six stakeholders were selected from customers, employees, managers, the board of advisors, and external experts through a stakeholder analysis based on selection criteria that include factors such as their level of influence, their expertise, or their willingness to participate. The final stakeholders list included three managers,

two external experts in the field of workplace and health care, which are the company's core sectors, and four board members.

3.4 Roundtable Discussions

The second method to collect primary data is through roundtable discussions in the workshops. Round-table discussions can be an effective tool for collaboration, decision-making, problem-solving, and knowledge sharing. This method can facilitate the integration of external market conditions and internal capabilities as well as resources into a cohesive strategic plan and enable the participants to identify key actions and responsibilities for implementing the strategic plan (Cowley & Domb, 1997). However, the effectiveness of roundtable discussions depends on various factors, including facilitation, participant engagement, and clarity of goals and objectives.

For consistency and practical reasons, it was decided that the participants in the round table discussions would be the three members of the company's leadership team, representing the three business units.

3.5 External Scanning

Scanning external market conditions refers to the process of analyzing and monitoring the factors outside of a company that can affect its operations, such as changes in customer needs, technological advancements, competitor actions, regulatory shifts, economic trends, and social and cultural shifts (Buckley & Casson, 2019). This analysis is important for businesses to identify potential opportunities and threats in the marketplace and to adjust their strategies accordingly (Banham, 2010).

Various methods can be used to perform a scan of the external market conditions. Because the participants were already familiar with a SWOT analysis, this approach was chosen to examine the company's strengths, weaknesses, opportunities, and threats in relation to the external market conditions. The set up for the SWOT analysis is shown in figure 3.5.

Figure 3.5: SWOT Analysis Set Up For Use in Virtual Collaboration Board

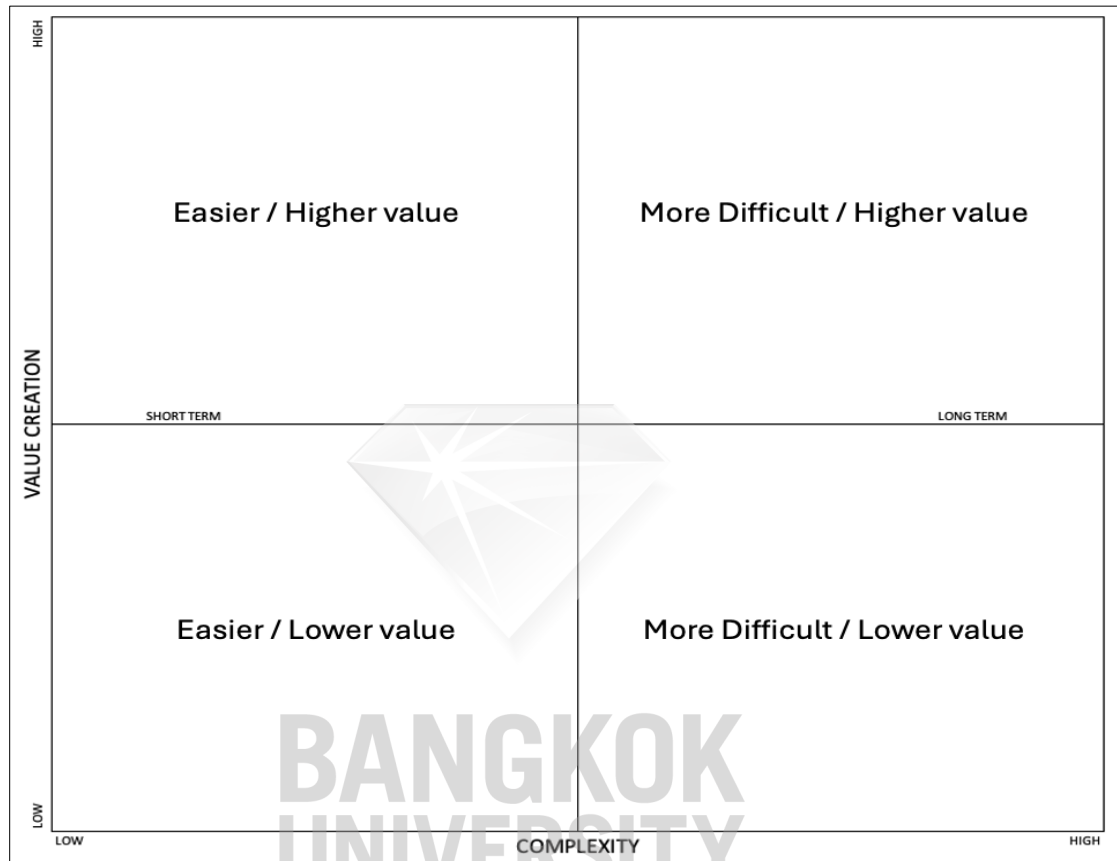


Additionally, a PESTLE analysis would be employed to focus on the external factors that may impact the business, such as political, economic, social, technological, legal and environmental factors. Additionally, a competitor analysis, which involved monitoring the actions and strategies of perceived competitors to identify potential opportunities or threats to a business, was conducted.

To gain a broader, outside perspective on the value of the potential strategic opportunities, the researchers interviewed four board members and two independent experts in the workplace and healthcare fields.

Next, the three leadership team members will be asked to evaluate the identified strategic opportunities using a 2x2 matrix, shown in Figure 3.6 below, to rank the opportunities based on their potential value to the firm and the complexity of exploiting them. The opportunities with the highest value potential and the lowest complexity level could be prioritized over those needing more time and investment.

Figure 3.6: 2x2 Matrix to Evaluate Strategic Opportunities



3.6 Internal Scanning

The key objective of the fourth workshop is to assess the company's core competencies and understand the future resources, capabilities, and technical development that might be required. To identify those resources that provide a sustained competitive advantage and those that need to be developed further, the researchers proposed to use the resource-based view and VRIO framework (Table 3.1). The reason the VRIO framework was proposed is that it can help break down resources to a granular level, that makes it easier to evaluate and discern whether the resource provides a competitive advantage and if so how?

[illegible]

Internal scanning of an organization can be used to identify and develop an organization's resources and competencies. This analysis of strengths and weaknesses is focused on organizational structure (chain of command), corporate culture (behavior, attitudes, norms, value judgments, and values), and organizational resources (assets, skills, knowledge).

The ability to sense and then seize new opportunities and to reconfigure and protect knowledge assets, competencies, and complementary assets is a dynamic capability (Augier & Teece, 2009) necessary to achieve a sustained competitive advantage.

3.7 Workshop Setup

Table 3.2: Workshop Setup

FIRST WORKSHOP

OBJECTIVE	The purpose of the first workshop is to plan and create alignment with the stakeholders on the approach.
SCOPE	1) Understand the definition of a roadmap and the process needed to develop it. 2) Align the content and obtain the key information that needs to be conveyed by the roadmap. 3) Approve the proposed visual representations in the roadmap that will be used to present the data and narratives.
OUTCOMES	1) Team buy-in of objectives and deliverables. 2) An outline of what the participants need to prepare for the next workshops.
TOOLS	1) Presentation of the process and examples of roadmaps. 2) Brainstorming session to create an outline of the roadmap.

SECOND WORKSHOP

OBJECTIVE	The purpose of the second workshop is to discuss the findings of scanning the external environment.
SCOPE	1) Identify changes and drivers for opportunities and risks. 2) Assess the competitive landscape by market and sector.
OUTCOMES	1) Team agrees which market threats and opportunities are most relevant. 2) Map the above out against a timeline (Current, Short-, Medium-, Long Term). 3) Ranking of risks.
TOOLS	1) Porter's Five Forces and PESTLE analysis to assess competitive landscape. 2) SWOT analysis to assess and rank threads.

THIRD WORKSHOP

OBJECTIVE	The purpose of the third workshop is to evaluate the strategic opportunities.
SCOPE	1) Prioritize potential opportunities and strategic choices. 2) Identify potential new value propositions by market and sector.
OUTCOMES	1) Team prioritizes strategic options and timing (Now, Short-, Medium-, Long Term). 2) Ranking of opportunities.
TOOLS	1) 2x2 matrix to rank opportunities.

(Continued)

Table 3.2 (Continued): Workshop Setup

FOURTH WORKSHOP

OBJECTIVE	The purpose of the fourth workshop is to assess the company's current core competences, and to understand potential future resources, capabilities and technical development that might be required for each business unit.
SCOPE	1) Identify current capabilities, resources and technology. 2) Identify future capabilities, resources and technology needs. 3) Identify potential inflection points
OUTCOMES	1) Team agrees which market threads and opportunities are most relevant. 2) Map the above out against a timeline (Now, Short-, Medium-, Long Term). 3) Ranking of opportunities and risks.
TOOLS	1) Resource Based View Framework to assess core competences. 2) VRIO Framework to assess internal resources to achieve sustained competitive advantage.

FIFTH WORKSHOP

OBJECTIVE	The purpose of the fifth workshop is to connect the outcomes from the previous workshops into a framework to plan strategy for the current, short, medium and long term.
SCOPE	1) Consolidate roadmap. 2) Identify linkages between the roadmap's layers. 3) Assess process and identify future improvements. 4) Agree who will execute and update the roadmap going forward.
OUTCOMES	1) Roadmap established. 2) Process improvements identified. 3) Process owner in place.
TOOLS	1) Adobe Illustrator to create visual of roadmap 2) Charter to document objectives, roles and responsibilities going forward.

3.8 Summary

As discussed, the aim of the roadmapping approach for this SME is to help the company to adapt successfully to changes in the external business environment, driven by technological advances, customer expectations, supplier requirements, regulatory changes, and increasing competition (Wiesner, Poole, & Banham, 2007).

In order for the company to better prepare for the external environmental analysis, they teamed up with the Framer School of Business, Miami University. Twenty teams of 4-5 senior students each worked during a semester to identify changes, drivers for opportunities, and risks in the external environment. The results

of the competitive landscape assessment by market and sector can be found in Attachment 1. The information obtained by the students will be used as a basis for the round table discussion on the external business environment and the identified opportunities in the second workshop.

It is anticipated that through the round table discussions, the leaders of the company may achieve a better-shared understanding of the strategic choices ahead.



CHAPTER 4

FINDINGS

The case study confirmed that SMEs typically lack the internal resources, capabilities, and capacity to engage in an integrated and sustained strategic planning process. At the same time, it served as a proof of concept for the roadmapping approach and showed the potential value of investing in strategic roadmapping.

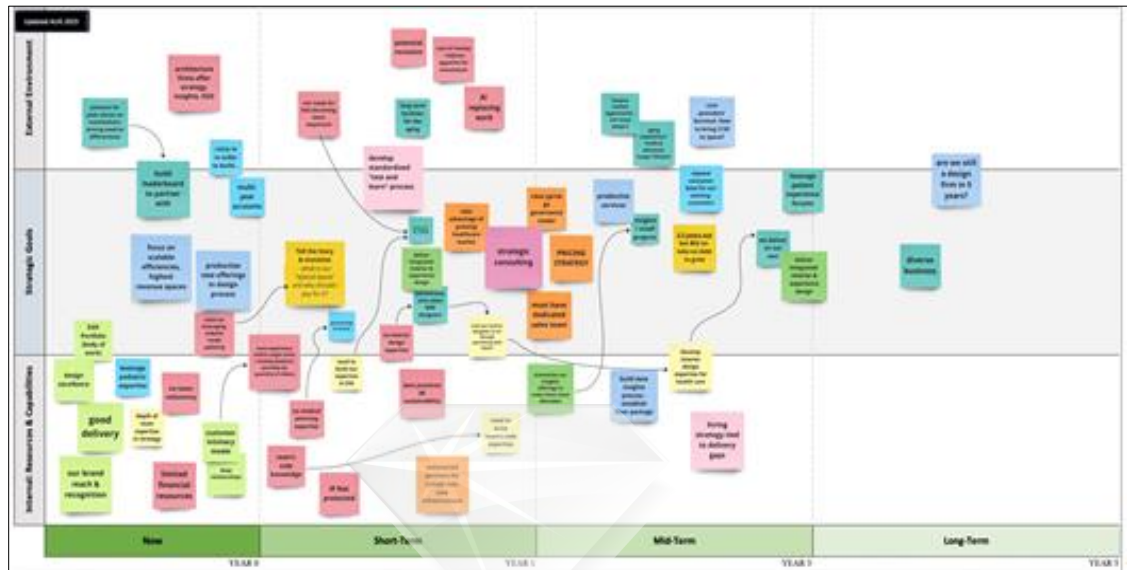
4.1 Challenges in Developing a Roadmap

While the small company's senior managers showed a strong interest in the process, they were unfamiliar with the strategic planning tools. As a result, the researchers had to schedule more time to explain the tools, how to use them, and what to prepare for them.

While the initial thinking was that the roadmap's timeline – short-mid-longterm – would be a rolling timeline. This however wouldn't allow for progress tracking against agreed milestones.

Therefore, a section called “now” was added, and the rest of the timeline was linked to the business' plan for transition of ownership. As shown in figure 4.1, the short term was determined to be 1 year, mid term was 3 year and long term a 5 year outlook.

Figure 4.1: Final Roadmap Design



Another challenge was creating a regular schedule and rhythm to keep the momentum going. The senior managers all have business delivery and management responsibilities and were often unavailable as scheduled due to ongoing operations and the business's day-to-day challenges.

The initial approach of assessing the company's competencies, potential strategic opportunities, and external market influence at the company level did not allow the discussion and results to reach the granular level they needed to inform strategic goals and actionable steps. The innovative and entrepreneurial spirit of the owner-manager led to the creation of different service lines across five sectors. Given that the original service line grew over more than 30 years into a mature business, generating most of the company's revenue, and that the other two service lines were more like start-ups inside the company, the strengths, weaknesses, opportunities, and threats looked very different for each of the service lines when assessed within each sector, as shown in Figure 4.2.

Following the SWOT analysis based on the external scanning, the team discussed the ranking of the opportunities as shown in Figure 4.3.

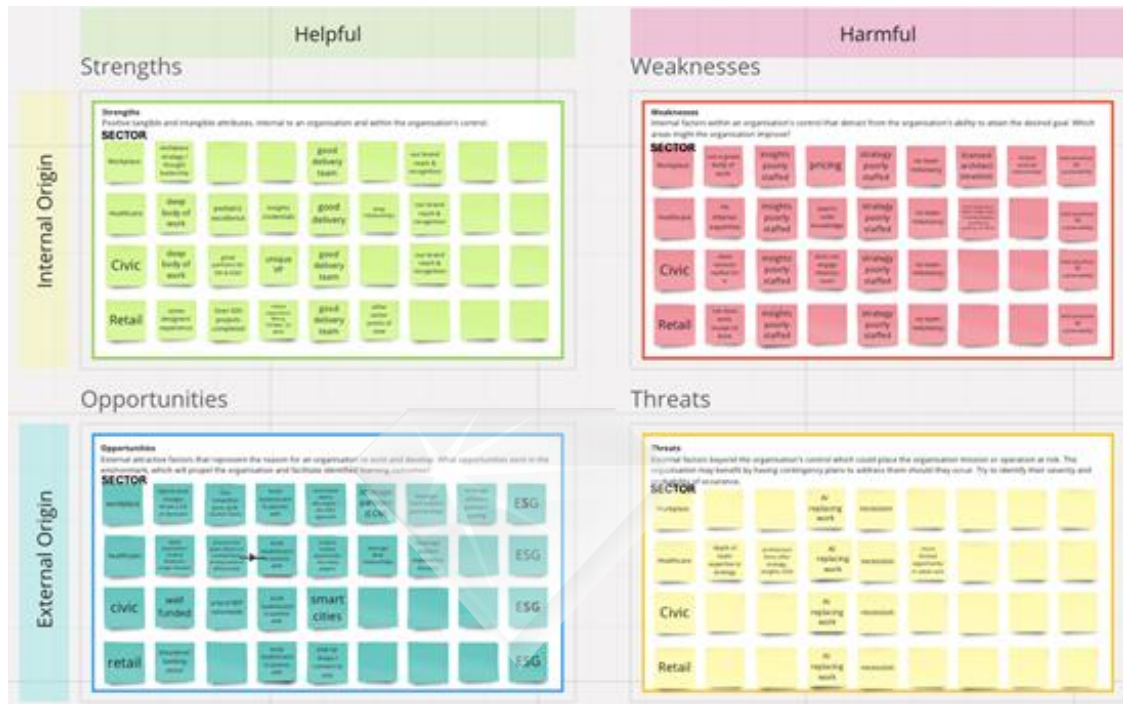
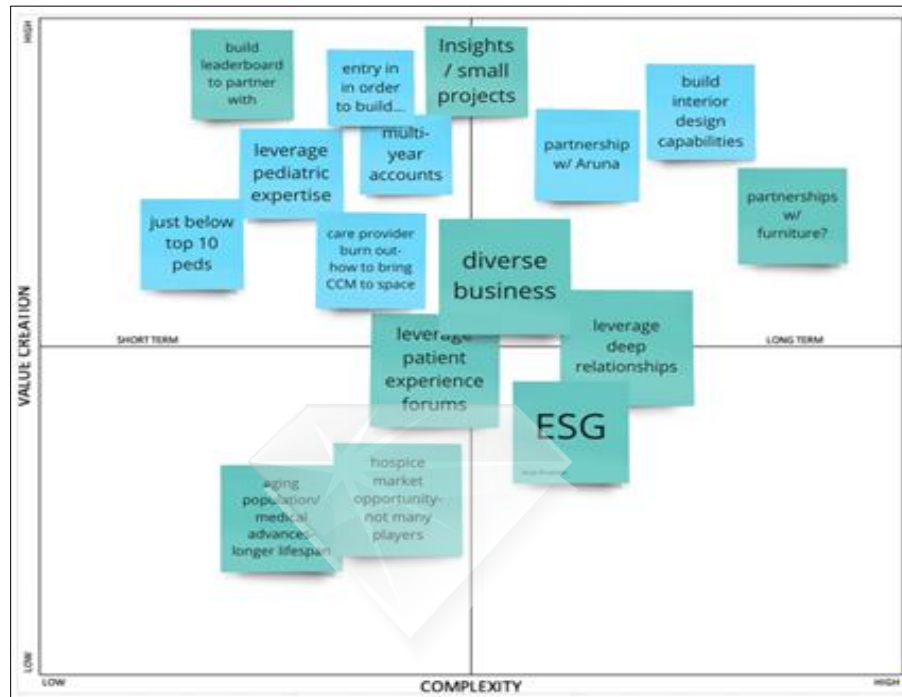


Figure 4.3: Result of the Opportunities Ranking Roundtable Discussion



Subsequently, the internal competencies were evaluated using the VRIO framework as discussed in chapter 3. Figure 4.3 show the results of that exercise.

Table 4.1: Evaluation of the Internal Competencies Using the VRIO Framework

RESOURCE OR CAPABILITY	VALUABLE ?	RARE ?	DIFFICULT OR COSTLY TO IMITATE ?	ORGANIZED TO CAPTURE VALUE ?	SCALABILITY	COMPETITIVE IMPLICATION
Thought leadership	yes	yes	yes	yes	difficult	important
Innovation Capability	yes	yes	yes	no	yes	important
EGD Portfolio - Body of Work	yes	no	no	no	yes	somewhat
Design Excellence	yes	no	no	no	yes	somewhat
Front-End - Feasibility & Project Definition	yes	yes, at our size	yes	future	yes	important
Interiors Portfolio	no	no	no	no	yes	not important
Insights Portfolio	no	no	no	no	yes	not important
Global Market Presence	no	no	no	no	no	not important
Interiors Design Expertise in Health Care	future	no	no	no	yes	not important
Partnership w/GO	yes	yes, at our size	no	no	yes	somewhat
Linking Strategy to Space	yes	yes	yes	future	yes	important
Partnership w/other Small WBE Designers	yes	yes, at our size	no	no	yes	somewhat
Partnership w/CCM Consultant	yes	yes, at our size	no	no	yes	not important
Partnership w/Medical Planner	yes	yes, at our size	no	no	yes	not important
Partnership w/RE Companies	yes	no	no	no	yes	not important
Partnership w/Economic Planners	yes	no	no	no	yes	not important
Partnership w/Developers	yes	no	no	no	yes	not important
Customer Intimacy Model	yes	yes, at our size	yes	future	difficult	important
Future productized offerings	yes	yes	yes	future	yes	important

However, the early stages of the process did not generate enough data and insights that were deemed new and valuable, which caused some managers to lose interest and prioritize other work they needed to get done. It was difficult for the researchers to recover and get the process back on track. While it is undoubtedly necessary to lay the groundwork for the brainstorming discussions later in the process, where the opportunities get evaluated, the researchers recommend making changes to the process to make it feel less academic and more engaging. It is also essential that the participants see results early on.

Two corrective action steps changed how the senior managers felt about the process, helped to get them re-engaged, and created a momentum that drove actionable results and a willingness to continue to use the roadmapping process to inform their strategic planning in the future.

First, interviews with external stakeholders (i.e., former clients and members of the board of advisors) provided different viewpoints and additional data to consider. This shows how important it is to get an outside perspective from industry experts and people who might be interested in the type of services to avoid drawing conclusions from potentially limited internal considerations.

Second, the switch to analyzing the findings from the SWOT analysis activities more granularly (e.g., by sector, market, and service line) halfway through the roadmapping process made it easier for the participants to agree on strengths and weaknesses and consider opportunities.

4.2 Benefits of Strategic Roadmapping for the Company

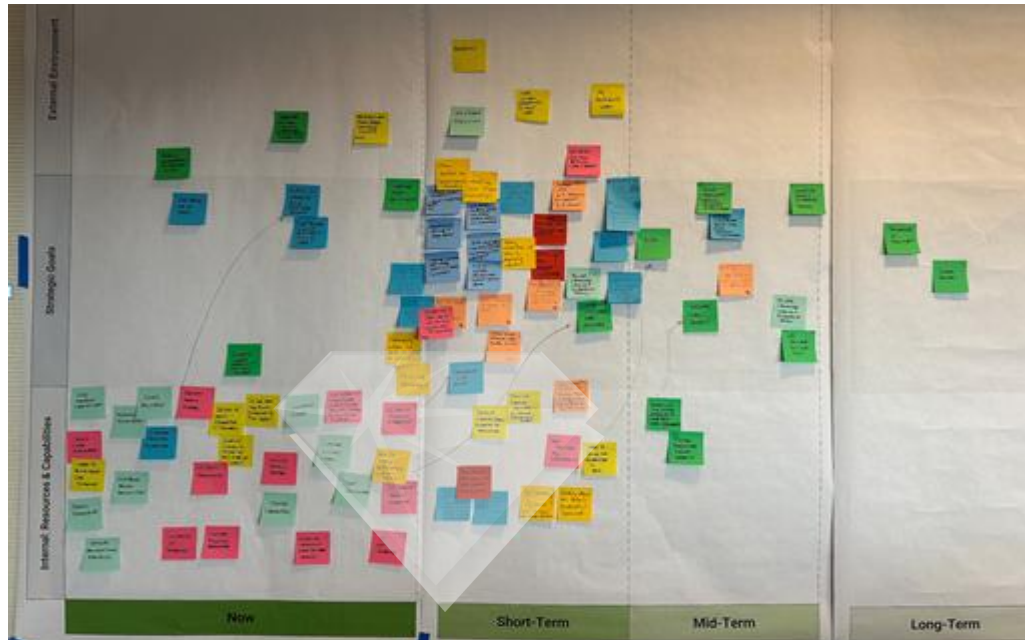
The level of flexibility in use and the visual nature of a strategic roadmap are especially appealing to managers of a creative firm. Dedicating time in the first workshop to co-creating the roadmap structure and making it visually appealing had the positive effect of getting a sense of ownership and buy-in. Furthermore, the company uses Design Thinking and brainstorming techniques with its clients to unearth valuable insights that inform its design delivery. Therefore, they are familiar and well suited to work with a strategic process and tools that encourage discussion rather than being overly prescriptive. Figure 4.4 shows an in-person roundtable discussion focused on the Health Care sector, for which board members and external practitioners familiar with the field, were invited to participate.

Figure 4.4: Health Care Sector Road Mapping Roundtable Discussion



Engaging in the roadmapping process, the company uncovered a fundamental flaw in its strategic thinking. Historical SWOT analyses had been conducted at an overly broad (birds-eye view) level, thereby failing to yield actionable insights and impeding the setting of concrete goals. The researcher proposed reorganizing the data collected in separate roadmaps for each sector and then conducting another analysis highlighting the differences by service line.

Figure 4.5: Brainstorming Results Captured in the Roadmap for the Health Care Sector



This decision resulted in more tangible insights, which the leadership team used to do an initial round of evaluation to establish a list of the top three strategic goals per sector. After further evaluation, based on perceived value creation and feasibility, the management team proposed to the board to focus on the two sectors that show the most growth potential and where the company has the most strengths. Following a financial return evaluation, the team will establish tactical plans to enable progress tracking against established goals for the selected opportunities.

4.3 Practical Insights

At the same time, some recurring themes point to structural issues related to the company's current position on a growth trajectory and level of maturity. The company identified three key strategic goals that are critical to achieving its long-term goal of becoming a legacy firm that no longer relies on the owner-entrepreneur to drive and grow the business:

4.3.1 The company that has obtained most of its business through the owner's networks must build a marketing and sales function.

4.3.2 It needs to establish a tiered pricing strategy that distinguishes between commodity and premium services and then enforce the discipline in its implementation.

4.3.3 The company will have to address capacity and capability issues in a fiscally responsible way to scale those services that show the highest potential for financial return and help build the brand reputation.

4.4 Recommendations

Perhaps the most encouraging outcome is that the company assigned part of a senior leader's time to own the roadmapping process as we advance, with several critical next steps identified.

In an ever-increasingly commoditized market, where it is challenging to articulate value-added and offer a value proposition that's seen as different and superior, made the First, the company's management's recommendation to the Board of Advisors to focus on two of the five market sectors will be further investigated. The top three strategic opportunities identified for each sector will be assessed for financial analysis and viability, allowing the company to prioritize resource allocations and timing.

Second, it was decided to institutionalize a process for innovation. The realization that innovation is the only way for the company to stay ahead of the competition management buy into the need for this ongoing effort. The budget and required resources will need to be finalized. Still, the company agreed that there would be a need to do regular technology scouting, especially keeping an eye on the proliferation of AI and how this might affect the company's business. The external scanning for the roadmapping process revealed that not only is there a threat that AI might replace some of the services the company offers, but there are already AI applications on the market to enable two of its current services.

Third, the process owner of the roadmapping process and strategy planning will propose a cadence for regular review of tactical action plans and discussions to see if a course correction that ties back to the company's quarterly off-site planning

sessions is necessary. The aim is that these reviews will help the senior managers who participate in these off-sites to prepare better and inform the agenda by setting priorities for discussion.



CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Contributions

While it was certainly challenging to try and implement a strategic roadmapping process at the level of a small company, with senior managers who were not prepared, the company's leadership saw enough value to continue the tools and processes continuously.

The findings contribute valuable insights for academics and practitioners, shedding light on the applicability of roadmapping in SMEs and providing practical recommendations for optimizing its implementation.

This research not only enriches the academic discourse on strategic planning in SMEs but also provides actionable guidance for owner-entrepreneurs and managers seeking to leverage roadmapping methodologies for sustained growth and competitiveness in the dynamic landscape of creative industries.

5.2 Limitations

Given that the success of this roadmapping application relies heavily on the company's owner and key stakeholders' readiness and willingness to invest time and effort, the same approach may not be generalizable as it may not work for another company.

This approach may have to be expanded to be more flexible and able to adapt to changing circumstances in the external market.

It might be beneficial to include scenario planning in future applications, so that inflection points that would trigger action, can be identified.

5.3 Next Steps

For the roadmapping effort to continue providing value for the company, it will be necessary to identify initiatives that allow it to scale up sustainably. Another next step is to find ways to establish year-over-year recurring revenue from multi-year contracts versus one-off projects as a way to protect the company from short-term market changes.

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