



Key internal drivers for an SME's dynamic ambidextrous growth strategy: A case study of a Norwegian seafood group

Hilde Hannevig^{*}, Bernt Arne Bertheussen

School of Business and Economic, UiT The Arctic University of Norway, Tromsø, Norway

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ABSTRACT

This qualitative, explorative case study presents a small and medium-sized enterprise (SME) in Norway that successfully pursued a dynamic ambidextrous growth strategy. The study applies a micro-foundation perspective and focuses on identifying and describing key internal drivers behind the group's ambidextrous strategy. The empirical findings underscore ambidextrous owner-managers' pivotal role in facilitating strategic realignment, structural adaptation, and knowledge management to enable the case group's long-term growth. This study contributes to the strategy literature by proposing a framework for theorizing how the identified key internal drivers can be employed to form a dynamic ambidextrous growth strategy in SMEs.

1. Introduction

In a world where business environments change rapidly, multiple studies suggest that firms must be organizationally ambidextrous to foster growth and long-term survival (O'Reilly III & Tushman, 2013; Tarba et al., 2020; Tushman & O'Reilly III, 1996). This means that organizations and their leaders should efficiently exploit existing capabilities while simultaneously exploring new opportunities to handle market changes (Eisenhardt et al., 2010; O'Reilly III & Tushman, 2013; Raisch, 2008). Organizational ambidexterity research has been criticized for adopting a static perspective, paying less attention to how ambidexterity evolves over time (Luger et al., 2018). According to Luger et al. (2018), firms should have a long-term perspective and pursue a dynamic ambidextrous strategy to prevent inertia and sustain performance over time. Luger et al. (2018, p. 449) refer to dynamic ambidexterity as "the ability to dynamically balance exploration and exploitation, which emerges from combining capability-building processes (to balance exploration and exploitation) with capability-shifting processes (to adapt the exploration-exploitation balance)."

Small and medium-sized enterprises (SMEs) represent about 90 % of global businesses and over 50 % of global employment, playing an essential economic and social role worldwide (The World Bank, 2019). Although studies suggest that ambidexterity can benefit larger firms (O'Reilly III & Tushman, 2013), the effectiveness of ambidexterity as a growth strategy for SMEs is debated (Wenke et al., 2021). Compared to large firms, SMEs tend to lack the resources and administrative

hierarchical structures needed to manage the contradictory knowledge processes required to handle complex ambidextrous strategies (Lubatkin et al., 2006). Consequently, some scholars (e.g., Ebben & Johnson, 2005; O'Reilly III & Tushman, 2013; Wenke et al., 2021) caution against assuming that the apparent superiority of ambidextrous strategies for large firms will hold for SMEs, arguing that SMEs may benefit more from choosing either an exploratory or exploitative business strategy. Conversely, some scholars have proposed that adopting ambidextrous strategies can benefit both small and large firms (Chang & Hughes, 2012; Lubatkin et al., 2006; Volery et al., 2015). However, they argue that this requires top-level managers who possess both strategic and operational abilities to manage conflicting knowledge processes and reallocate resources to balance exploration and exploitation (Chang & Hughes, 2012; Lubatkin et al., 2006).

Balancing the exploration of new technologies and market opportunities while exploiting existing assets and positions tends to cause tensions and trade-offs (Eisenhardt et al., 2010; Lavie et al., 2010; March, 1991). Tensions arise because exploration requires a flexible organizational culture and learning structures that foster risk-taking, experimentation, active knowledge search, and innovation (Dezi et al., 2019; Levinthal & March, 1993; March, 1991). Conversely, exploitation requires organizational learning structures that promote control, efficiency, incremental progress, and utilization of existing knowledge and abilities (Dezi et al., 2019; Levinthal & March, 1993; March, 1991). Learning structures refer to formal and informal procedures and routines that facilitate organizational learning and knowledge development

^{*} Correspondence to: School of Business and Economic, UiT The Arctic University of Norway, PO box 6050 Langnes, NO-9037 Tromsø, Norway.
E-mail addresses: hilde.hannevig@uit.no (H. Hannevig), bernt.bertheussen@uit.no (B.A. Bertheussen).

(March, 1991). To resolve the potential conflicts arising from the contrasting learning structures needed for balancing exploration and exploitation, organizations and their leaders should establish structures that enable ambidexterity (Raisch & Zimmermann, 2017; Tushman & O'Reilly III, 1996). Firms may benefit from combining and dynamically alternating between several intra- and inter-organizational structural solutions, such as contextual ambidexterity (Gibson & Birkinshaw, 2004), structural separation (Tushman & O'Reilly III, 1996), networks (Kauppila, 2010), or a blending of these structures (Foss & Kirkegaard, 2020; Luger et al., 2018).

In his seminal article, March (1991) emphasizes that “finding an appropriate balance (of exploration and exploitation, author’s note) is made particularly difficult by the fact that the same issues occur at different levels of a nested system – at the individual level, the organizational level, and the social system level” (1991, p. 72). Despite March (1991) bridging the individual and organizational levels, scholars have generally discussed ambidexterity as an organizational capability (Luger et al., 2018). The focus has primarily been on the balance of exploration and exploitation and the performance outcomes resulting from this balance (O'Reilly III & Tushman, 2013). Notably, Raisch et al. (2009) pointed out that multiple levels of analysis may be essential in ambidexterity research to fully understand the balance of exploratory and exploitative activities. Moreover, it has been argued that the origins of a firm’s ability to be ambidextrous should be seen from a micro-perspective and is characterized by firms’ owners and individual top managers’ ability to be ambidextrous (Duysters et al., 2020; Eisenhardt et al., 2010; Felin & Foss, 2005; Lubatkin et al., 2006; Volery et al., 2015). The scarcity of studies that integrate multiple levels of analysis to unveil the micro-foundations of organizational ambidexterity’s emergence and evolution in SMEs (Luger et al., 2018; Tarba et al., 2020; Wilden et al., 2018) underscores the need for a deeper understanding of the factors contributing to ambidexterity (Duysters et al., 2020).

In today’s business environment, knowledge-based assets have gained significant attention from both scholars and managers and are considered a vital strategic resource for firms, making strategic knowledge management important for a firm’s performance and sustainability (Durst et al., 2023; Su & Daspit, 2022). Effective knowledge management is essential for organizational ambidexterity, which involves blending new and existing external and internal knowledge to balance exploration and exploitation (Dezi et al., 2019). For this case study, knowledge management refers to the “processes and structures provided in SMEs to support the different knowledge processes, such as transfer, storage and creation” (Durst et al., 2012, pp. 879–880). Individuals play a vital role in recognizing and sharing knowledge, while organizational-level constructs like documentation, shared history, reward systems, routines, and structures are important for knowledge accumulation and management at an organizational level (Volberda et al., 2010). SMEs tend to manage knowledge informally through owners and key personnel at an operational level, whereas larger firms typically take a strategic approach to knowledge management (Durst & Edvardsson, 2012). Given the apparent differences in managing knowledge in SMEs compared to larger firms, scholars caution against transferring findings from knowledge management research from large firms to SMEs (Durst et al., 2023). Hence, how knowledge management can support ambidexterity and improve performance in SMEs is still not fully understood (Dezi et al., 2019; Durst et al., 2023).

The lack of investigation into the micro-foundations of organizational ambidexterity—the individual and organizational-level activities needed to balance exploration and exploitation and the ability to dynamically alternate and realign these activities as firms’ business environments evolve—calls for further research (Tarba et al., 2020). In response to a call from Tarba et al. (2020), we conducted a multi-level case study of an SME to investigate how “individuals’ abilities, motivations, and actions, as well as the organization’s structures, systems, processes, and senior leadership’s roles and behaviors” (2020, p. 5) impacted the development of organizational ambidexterity and

long-term growth. The question guiding this study is:

Which internal key drivers can be decisive, and how can these drivers be dynamically combined and realigned between exploration and exploitation to achieve long-term growth in an SME?

Our research contributes to strategy literature by taking a multi-level approach focusing on the micro-foundations of an SME’s dynamic ambidextrous growth strategy. Building on Luger et al.’s (2018) research, this study demonstrates that SMEs, like larger organizations, can adapt to changes in their business environment by implementing a dynamic ambidextrous strategy. However, we argue that the owner-managers of the case group played a critical role in developing, realigning, and continuing this strategy over time. At the organizational level, drawing on the insights from Foss and Kirkegaard (2020) and Kauppila (2010), we suggest that the dynamic blending and alternation of organizational structures and intra-organizational cooperation was vital to achieving the case firm’s successful growth. Additionally, we emphasize the importance of acquiring, developing, utilizing, and managing knowledge from internal and external sources to enable a dynamic ambidextrous growth strategy.

The article is structured as follows: First, the study’s theoretical framework is presented, followed by a description of the methodological approach, data collection, and data analysis procedures. Further, a data structure model based on the empirical findings and relevant illustrative examples from the empirical data are presented and described (Fig. 3). Furthermore, the main phases for explorative activities are described and discussed (Fig. 4) to demonstrate the dynamic nature of the case group’s ambidextrous strategy. Fig. 5 presents a theoretical framework, followed by a discussion of key internal drivers that together formed the case group’s dynamic ambidextrous growth strategy that had led to the group’s long-term growth. Finally, a conclusion and the practical and theoretical implications of the empirical findings are outlined, followed by suggestions for further research activities.

2. Theoretical background

2.1. Definitions and challenges of ambidextrous strategies

March (1991) posited that firms generally have limited resources. Consequently, pursuing an ambidextrous strategy is challenging since explorative and exploitative activities compete for the same scarce resources while demanding contradictory organizational norms, knowledge processes, and learning structures (Lubatkin et al., 2006; March, 1991). Exploitation is associated with short-term goals and returns and involves activities that leverage and refine firms’ existing knowledge base, skills, capabilities, and technological trajectory (Lavie et al., 2010; March, 1991). Exploration requires a longer time perspective and involves the acquisition of new knowledge and skills, including the development of technological skills, exploration of new markets and products, and the establishment of external relationships aimed at enhancing exploration (Lavie & Rosenkopf, 2006; Lavie et al., 2010; March, 1991; Voss & Voss, 2013). According to Voss and Voss (2013), activities aimed at improving existing product- and market capabilities can be classified as exploitation strategies, while those focused on exploring new products and markets fall under exploration strategies. An ambidextrous strategy is achieved when firms balance these two approaches (Voss & Voss, 2013). Strategies to dynamically balance and shift firms’ exploration—exploitation balance across domains and over time are conceptualized as “dynamic ambidextrous growth strategies.”

2.2. Knowledge management in the context of SMEs

Exploration and exploitation are, by some scholars, operationalized as orthogonal activities that demand different sets of knowledge and learning structures (Gupta et al., 2006). According to this view, the two

sets of activities can be pursued separately and independently with different organizational objectives (Gupta et al., 2006). Due to competing demands for limited resources typical for SMEs, trade-offs must be made between exploration and exploitation regarding attention and organizational routines (Birkinshaw & Gupta, 2013; Gupta et al., 2006; Lubatkin et al., 2006). However, differentiating between exploration and exploitation can be challenging since new knowledge often builds upon firms' existing knowledge base, explorative efforts often stem from current activities, and the two sets of activities can be complementary aspects of firms' decisions and actions (Gupta et al., 2006; Lavie et al., 2010). Hence, the distinction between exploration and exploitation can be unclear, particularly when explorative initiatives are undertaken close to the firm's core business (Lavie et al., 2010; Chen, 2017). From this viewpoint, the distinction between the two is a matter of degree rather than kind and depends on the level of new or existing knowledge necessary for each activity (Lavie et al., 2010). Thus, following Lavie et al. (2010), this study conceptualizes exploration and exploitation as a sliding entity on a continuum, where some activities categorized as exploitation could also fit as explorative endeavors and vice versa.

Firms often seek knowledge within their proximity, as it is easier to identify and implement new knowledge that aligns with their existing knowledge base and routines (Volberda et al., 2010). This study conceptualizes exploratory efforts that build on a firm's current knowledge base, such as acquiring new technological skills and market expertise in areas related to firms' existing operations or up and down the firm value chain, as close to core exploration (Chen, 2017; Lavie et al., 2010). Contrary, exploratory activities that differ radically from the existing business core, such as venturing into new sectors or industries, are considered explorations far from the core of the business (Chen, 2017). Additionally, exploration versus exploitation is relative to newness. Activities, processes, structures, and products new to a specific firm can be defined as exploration, even if other firms explored similar possibilities in the past (Lavie et al., 2010).

2.3. Ambidextrous leadership in SMEs

SMEs are often family-owned, where one or smaller groups of owner-managers typically make most of the strategic and operational decisions (Lubatkin et al., 2006). Concentrated ownership and owners' proximity to daily operations allow for flexible, faster, and more efficient allocation of SMEs' often limited resources between exploratory and exploitative endeavors (Fourné et al., 2019). Hence, such closeness to everyday operations can counterbalance the lack of slack resources in SMEs (Fourné et al., 2019). Luger et al. (2018) argue that long-term perspectives are essential for dynamic ambidextrous strategies. Family firms' tendency to focus on succession and other long-term non-financial socioemotional goals can be advantageous in handling long-term strategies (Lumpkin & Brigham, 2011; Su & Daspit, 2022). Compared to firms with a shorter time horizon, firms with long-term orientations tend to be more motivated to build slack resources and establish long-term network relationships that can be used for exploratory initiatives (Lumpkin & Brigham, 2011; Miller et al., 2016).

Family firms often appoint heirs raised within the firm's culture and norms from an early age. While this practice helps maintain continuity, it can also lead to inertia by limiting the introduction of new outside perspectives, which may hinder exploration and progress (March, 1991). Further, when firms lack a clear strategic intent to both exploit and explore, they tend to become increasingly inert as they grow and age by favoring the safe specialization of well-known markets and products with a greater chance of short-time success over more uncertain long-term investments (March, 1991; O'Reilly III & Tushman, 2008). To prevent a gradual decline and inertia, leaders face the challenge of countering this "success trap" (as described by Levinthal & March, 1993). Hence, leaders should motivate organizational members to view changes in their business environment as opportunities (Jansen et al.,

2009). Such leadership style can inspire creativity and innovation by promoting active knowledge exchange and motivating individuals throughout the organization to pursue both explorative and exploitative innovations (Jansen et al., 2009).

2.4. Structural approaches for managing ambidexterity

The literature mainly discusses two intra-organizational structural modes for accomplishing ambidexterity: contextual ambidexterity and structural separation (O'Reilly III & Tushman, 2013). Contextual ambidexterity employs an individual perspective, with individuals or teams dividing their time between exploration and exploitation to meet changing demands in their business environment (Gibson & Birkinshaw, 2004). Scholars have argued that contextual ambidexterity is particularly relevant for SMEs because SMEs generally lack the hierarchical administrative systems, sufficient slack resources, and knowledge needed to balance explorative and exploitative activities through separate units (Fourné et al., 2019). Senior executives are essential in facilitating contextual ambidexterity, as individuals and teams require supportive contexts and organizational cultures to prevent contextuality-related tensions (Lavie et al., 2010). Contextual ambidexterity as a structural approach can be effective if a firm's exploratory endeavors are not radically different from its core business, allowing for exploration within the existing organizational frames (Chen, 2017).

However, when implementing new initiatives that require fundamentally different knowledge and capabilities from the core business, the contextual ambidexterity approach may not be the most effective way to manage an ambidextrous strategy (Chen, 2017). Schmidt and Rosenberg (2014) argue that a creative work environment is essential for developing groundbreaking products. However, they note that as organizations grow and mature, certain processes that are necessary for enhancing growth, efficiency, and profitability may limit innovation within existing units. In such cases, it may be more effective to separate exploratory and exploitative activities into different units (Schmidt & Rosenberg, 2014). Structural separation refers to the practice of allocating exploration and exploitation activities to separate business units or groups and allow exploratory units to freely cultivate new ideas away from established process-driven core activities (Birkinshaw & Gupta, 2013; Tushman & O'Reilly III, 1996; Schmidt and Rosenberg, 2014). To successfully facilitate such separation, top managers must coordinate and reconcile conflicting interests across the different units (Lavie et al., 2010). To overcome limitations in each structural mode, Foss and Kirkegaard (2020) suggest that firms can blend contextual ambidexterity and structural separation.

Moreover, new knowledge and additional resources acquired from external networks and partnerships can enhance innovations in SMEs (Dezi et al., 2019; Heavey et al., 2015; Raisch et al., 2009). Scholars suggest that inter-organizational cooperation can reduce tensions by providing access to complementary resources and knowledge, contributing to improving performance and mitigating the risk of errors caused by internal knowledge and resource limitations (Chen et al., 2006; Colombo et al., 2012; Kauppila, 2010; Lavie & Rosenkopf, 2006).

3. Method

To address the research question, this study applied an empirical single case-study design, leaning on the interpretive paradigm and mainly resting on phenomenological epistemology combined with elements of constructivism (Cope, 2005; Dyer & Wilkins, 1991; Gephart, 2004; Gioia & Pitre, 1990). A richer and more detailed insight from a single case can contribute to a better understanding of a phenomenon by describing the empirical context of events (Dyer & Wilkins, 1991). A constructivist framework provides a valuable lens for understanding how the interaction and processes between human activities, previous performance, the business environment, and environmental changes influence organizational structures, processes, and performance

(Bouchikhi, 1993).

Seafood Group (SFG, anonymized name) was chosen as the subject of the study because it is an SME that has achieved sustainable organic long-term growth by pursuing an ambidextrous strategy. SFG was considered a common case (Yin, 2014) based on numerous features described in the literature as typical for SMEs (Lubatkin et al., 2006; Volery et al., 2015). Further, SFG was considered a revelatory case (Yin, 2014) due to the first author's unique access to information from the owner-managers, other key personnel within the group, and secondary sources that are usually hard to obtain. The first author gained access to the case group through her network from twenty-five years of work and board membership experience with firms related to the seafood industry in Norway. The authors' experiential background through practical experience and research provided an in-depth understanding that guided the interpretation of the respondents' answers.

To demonstrate the effectiveness of SFG's growth strategy, a comparison was made between the operating revenue growth of the salmon farming unit (SFU) and the fish harvest unit (FHU) (anonymized names) with the operating revenues of competitors in the same strategic groups between 2010 and 2022 (Figs. 1 and 2). SFU's strategic group comprises small Norwegian salmon farmers with one to nine salmon farming licenses, while FHU's strategic group consists of the seagoing Norwegian purse seine fleet (Directorate of Fishery Norway, 2024). Microsoft Excel software was used to make the comparisons.

Despite considerable growth in production in the Norwegian salmon farming industry, the number of salmon farmers decreased significantly from 800 in 1991 to 142 by 2018 (Nøstbakken & Selle, 2019). While many industrial actors expanded through acquisitions and mergers, SFU's growth was mainly organic. Therefore, SFU is compared to firms within the same strategic group, rather than all Norwegian salmon farmers. According to the data presented in Fig. 1, SFU's operating revenue growth rate closely mirrored the average growth rate of its comparable competitors from 2010 to 2013. However, from 2014 to 2022, SFU's average annual growth rate exceeded that of its competitors. Over the entire period from 2010 to 2022, SFU achieved an annual average operating revenue growth rate of 12.6%, in contrast to its

competitors' 9.5% annual growth rate, suggesting that SFU pursued a successful growth strategy.

FHU's operating revenue growth rate consistently varied with industry trends from 2010 to 2019, peaking in 2019 before slightly decreasing in the subsequent two years. Between 2010 and 2022, FHU's average yearly operating revenue growth rate of 6.6% exceeded the average yearly operating revenue growth rate of 4.9% of the seagoing Norwegian purse seine fleet (Fig. 2). This performance suggested that FHU, like SFU, employed a successful growth strategy.

3.1. Data Sources

The primary data source for this study was fifteen open-ended semi-structured interviews with nine respondents conducted between spring 2019 and autumn 2022 (Table 1). The owner-managers of SFG were perceived as knowledgeable agents due to their active and informed involvement in their firms, as well as their ability to "explain their thoughts, intentions, and actions" (Gioia et al., 2013, p. 17). They were familiar with all aspects of the group and made all key decisions, making them suitable participants for this study (Corley & Gioia, 2004). Further, a snowball sampling technique was applied by asking Owners 1 and 2 to suggest other relevant respondents for the study (Patton, 1990).

Multiple respondents provided a comprehensive view of the group and reduced potential errors from memory failure or distortion and other biases (Mintzberg et al., 1976). Moreover, most events and strategic choices of interest were recent or considered significant for the group and seemed well-remembered by the respondents (Mintzberg et al., 1976). In accordance with a phenomenological interview approach, the authors aimed to avoid personal bias when obtaining the respondents' perceptions of their "lived experiences" without forming specific constructs and theories before the interviews (Brinkmann & Kvale, 2015; Cope, 2005). To reduce the risk of cognitive bias, the interviews focused on facts and concrete events rather than abstract concepts and speculation (Miller et al., 1997). Out of the respondents, two were females and the rest were males. While male and female employees might perceive the world differently (Saunders et al., 2019), the

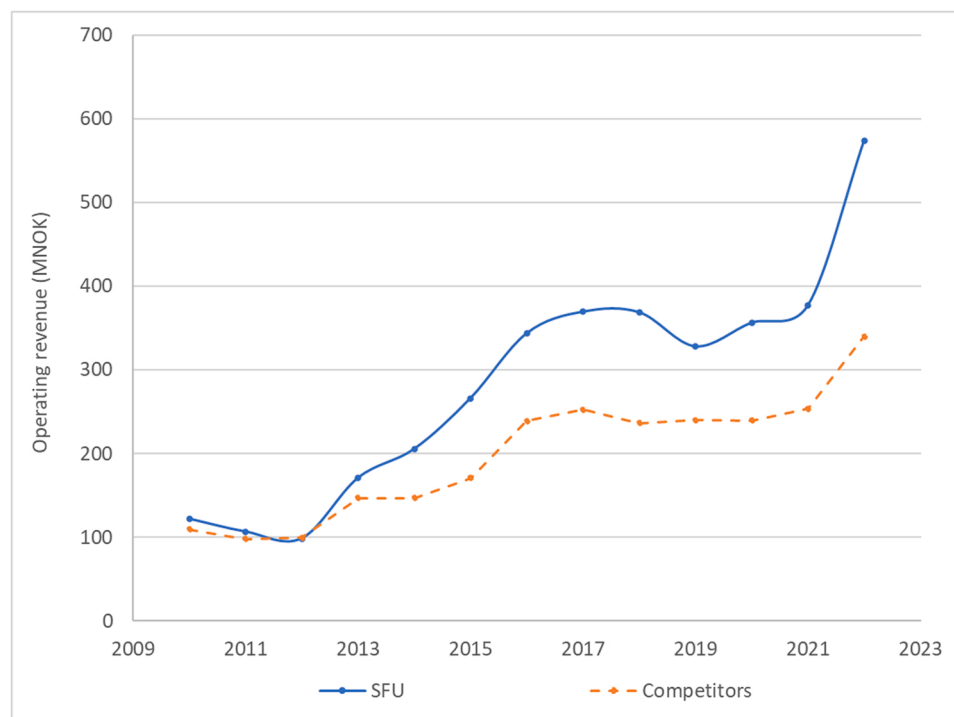


Fig. 1. Nominal operating revenue development of SFU (Proff.no, 2024) compared to the average operating revenues of comparable competitors between 2010 and 2022 (Directorate of Fishery (Norway), 2024). Revenue numbers are presented in millions of NOK (MNOK).

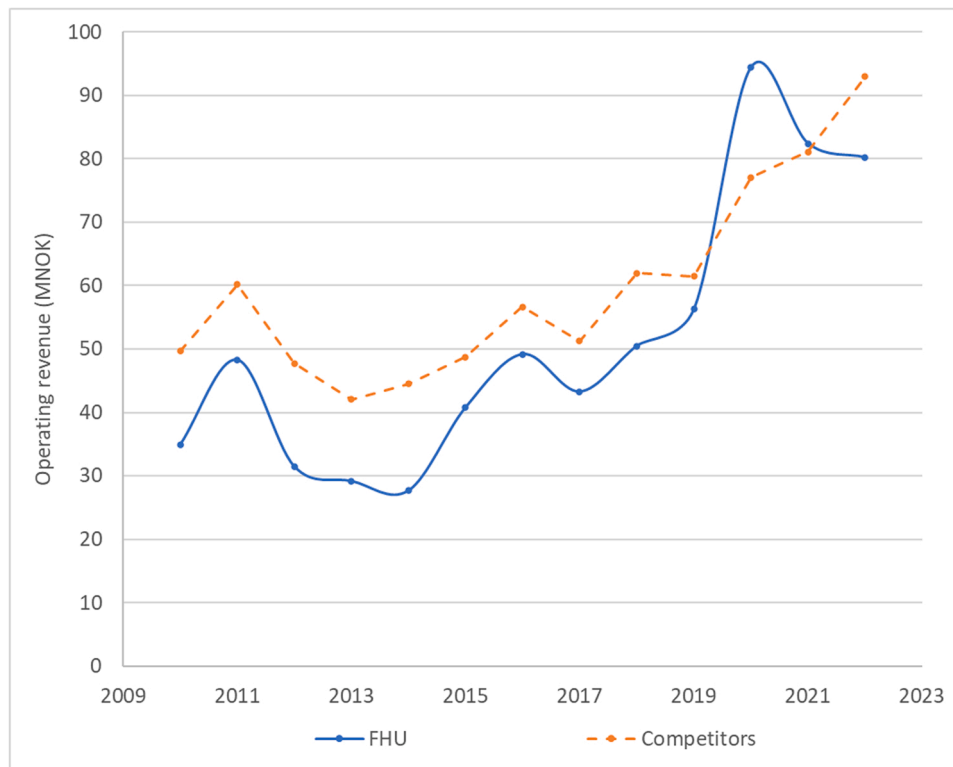


Fig. 2. Nominal operating revenue development of FHU (Proff.no, 2024) compared to the average operating revenues of its competitors between 2010 and 2022 (Directorate of Fishery, Norway, 2024). Revenue numbers are presented in millions of NOK (MNOK).

Table 1
Overview of the interviews, informants, their roles, and the secondary sources.

Units	Respondents	Dates of interview	Roles	Number of interviews
FHU ¹	Owner 1	May 2019, May 2020, July 2022	CEO ³	3
	Heir	January 2021, July 2022	Skipper	2
	Heir	January 2021	Chief	1
	Employee	May 2019	Chief 2	1
SFU ²	Owner 2	May 2020, May 2021, July 2022	CEO	3
	Heir	June 2020, July 2022	MM ⁴	2
	Professional chairman	January 2021	CB ⁵	1
	Employee	May 2021	LM ⁶	1
Secondary data sources:	Employee	June 2020	PM ⁷	1
	SFG ⁸ 's internet home page			
	Press articles			
	Data from governmental data banks			
First-hand observations of the facilities during first interviews				
Turnover numbers from SFG's financial statements				

FHU¹- fish harvesting unit; SFU²- salmon farming unit; CEO³- chief executive officer; MM⁴- middle manager; CB⁵- chairman of the board; LM⁶- location manager; PM⁷- project manager; SFG⁸- Seafood Group

findings suggested no gender differences.

Before conducting the interviews, the interview guide was tested on the CEO of a fishing company not involved in the study (Gioia et al., 2013). Adjustments were made based on his answers to improve the focus and level of detail of the study questions and to remove leading questions. Reliability was strengthened using the same semi-structured, open-ended case-study protocol for all initial interviews (Yin, 2014). The initial interviews lasted 1 to 1.5 h, while the follow-up interviews lasted 15 to 45 min. All initial interviews featured similar entry and exit

procedures and questions (Yin, 2014). Four in-person interviews were held at SFG's head office, while two follow-up interviews were conducted on board FHU's fishing vessel. All in-person interviews were recorded with the permission of the respondents. The remaining interviews were video recorded using Microsoft Teams (a digital communication platform) with the respondents' permission and transcribed within a few days of the interviews. Follow-up interviews were done to clarify the respondents meaning and provide a thick description from the respondents' perspective (Brinkmann & Kvale, 2015; Cope, 2005). The first author conducted the interviews in Norwegian, the native language of the authors and the respondents. The representative quotes cited in the results section were translated into English by the first author and reflected the main findings from the interviews. Owners 1 and 2 got to read the translated quotations from their initial interviews and give feedback on whether they agreed with the translations.

To reduce information-processing bias and enhance reliability, data triangulation was employed to include complementary aspects of the studied phenomenon (Eisenhardt, 1989; Patton, 1990; Yin, 2014). To do so, multiple data sources were applied, such as observations, the group's operating revenue numbers, the unit's homepages, press articles, and secondary data from governmental data banks (Directorate of Fishery Norway, 2024; Proff.no, 2024; Seafood Group (SFG AS), 2021; Vadset, 2019). The owner-managers of SFG were interviewed twice at the group's head office, with each visit lasting one day (May 2019 and May 2020). The first author recorded her immediate observations within a day of each visit to prevent memory distortion (Bourgeois III & Eisenhardt, 1988).

3.2. Data analysis

The NVivo software was used to inductively sort the empirical data from the interviews into codes based on respondents' descriptive phrases or words (Corley & Gioia, 2004). A constant comparison technique was employed during the coding process, which allowed for re-coding

and adjustment of categories to ensure consistency across the interviews (Corley & Gioia, 2004). After the initial coding, following the methodology of Corley and Gioia (2004), the codes were organized into first-order concepts. Some statements from the respondents could fit into

different concepts but were sorted into the ones that were found most suitable. Less relevant empirical data were excluded, although they comprised parts of the overall picture.

Further, the first-order concepts were abstracted into second-order

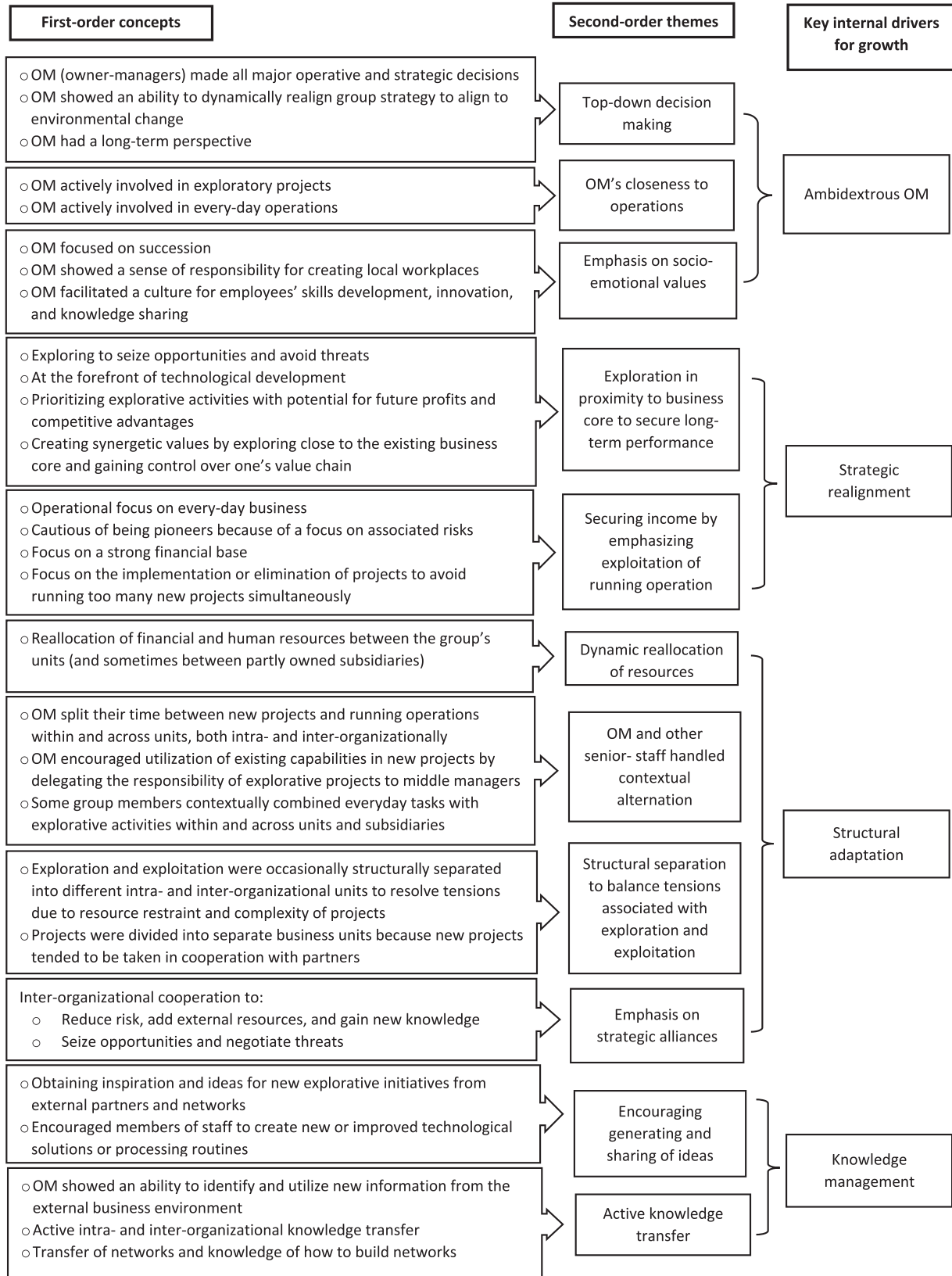


Fig. 3. Data structure.

themes. These themes were compared to literature using an abductive approach (Dubois & Gadde, 2002). The second-order analysis moved the analysis to a theoretical level to examine for “underlying explanatory dimensions” that could be relevant beyond the case firm (Gioia & Chittipeddi, 1991, pp. 437–438). As a validation step, the second author reviewed the coding, categories, and themes of the transcribed interviews without prior knowledge of the initial NVivo coding (Corley & Gioia, 2004). The findings were then compared and discussed to resolve differences, contributing to construct validity (Crossan & Berdrow, 2003). Rigor was demonstrated by showing the progression from raw empirical findings to aggregated dimensions (Gehman et al., 2018). Finally, the second-order themes were grouped into four aggregated dimensions labeled “key internal drivers for growth” (Fig. 3). These key internal drivers were not assumed to represent a comprehensive or immutable list but were considered essential for SFG’s long-term growth. Subsequently, the identified key internal drivers were incorporated into a comprehensive theoretical framework (Gioia & Chittipeddi, 1991), outlined in Fig. 5 of the discussion chapter.

4. Results

SFG was a family firm founded as a pelagic fish harvesting firm with one fishing vessel. In 1984 the owners made a significant strategic decision to expand into the then-emerging Norwegian Atlantic salmon farming industry.

“I think they entered the salmon farming industry to create more activity in the firm, have more than one leg to stand on, and share the responsibility between the two brothers” (CB, SFU).

SFU was established to manage the group’s salmon farming operations, while FHU continued as a wild catch fishing firm. The two units shared some managerial and administrative functions like accounting and office facilities. The current owner-managers gradually succeeded their father in the 1980s and the two brothers became CEOs of SFU and FHU, each holding 50% of SFG’s total owner shares. SFU exceeded FHU in revenue (Proff.no, 2024) and employee count by 2001, boasting 185 employees compared to FHU’s 14 (Owner 1).

4.1. The salmon farming unit (SFU)

Salmon farming in Norway developed rapidly from being a small emerging industry in the 1980s to becoming the third-largest export industry in Norway by 2016 (Fløysand & Jakobsen, 2017). However, the industry faced considerable environmental, technological, and economic challenges as it expanded (Fløysand & Jakobsen, 2017). Governmental regulations were implemented to encourage and force industrial actors to develop innovative solutions to solve these industrial challenges (Christiansen & Jakobsen, 2017; Fløysand & Jakobsen, 2017). Hence, during the 1990s, vaccines and technological advancements significantly reduced livestock mortality. However, increased efficiency caused overproduction and market crises in the late 1990s, leading to a financial crisis that resulted in exits from the industry for many salmon farmers (Aarset & Jakobsen, 2009). Despite its challenges, the industry became increasingly profitable from the year 2000 (Fløysand & Jakobsen, 2017), presenting growth opportunities for firms such as SFG (Table 2).

According to the owner-managers, SFU was consistently at the forefront of innovation, evaluation, and testing of novel technological solutions to achieve long-term growth. To support innovation and development, SFG created internal learning structures, as described by Levinthal and March (1993), that fostered idea generation, innovation, and collaboration, while ensuring a safe environment for knowledge exchange and progress. Further, aligning with Kauppila’s (2010) findings, the results suggested that inter-organizational collaboration enhanced exploration and exploitation by pooling resources and

knowledge with external partners. Throughout its history, SFU collaborated with partners for most of its explorative initiatives, particularly with EP1 (Table 2). Through collaboration with external partners, SFU gained control of its value chain by establishing several subsidiaries (Table 2).

Since explorative efforts often stemmed from current activities and built upon SFG’s existing knowledge base, the distinction between exploration and exploitation was sometimes unclear (Gupta et al., 2006; Lavie et al., 2010). For instance, SFU’s use of robotic technology in their salmon production could be viewed as exploitation to increase production volume or as an exploration of new technologies. Similarly, to obtain the showroom license, SFU had to create a showroom and provide guided tours (Directorate of Fishery Norway, 2023), an explorative (for SFU) activity more related to tourism than traditional salmon farming. However, the salmon farming license associated with the showroom license was an ordinary salmon farming license. These examples demonstrate that the two sets of activities sometimes are a question of degree rather than kind, supporting Lavie et al. (2010) continuum perspective.

4.2. The fish-harvesting unit (FHU)

From 2000, FHU mainly experienced incremental changes in its business environment due to stable fish quotas and strict governmental regulations that limited industrial actors’ explorative options (Hannevig & Bertheussen, 2020). Nevertheless, FHU held a forward-leaning explorative approach by buying and building new vessels that enabled the exploration of novel, more efficient explorative catch technology and the implementation of fisheries of, to FHU, new species (Table 3).

FHU mostly explored opportunities close to its business core (Chen, 2017), sometimes making it challenging to classify its activities as either explorative or exploitative. For example, introducing more innovative, technologically advanced equipment to enhance the performance of running operations could be defined as both exploration and exploitation (Lavie et al., 2010). However, in this study, acquiring quota shares for new, to FHU, fish species and implementing new explorative catch technology is defined as exploratory activities.

“Many suppliers turn to us when they want to try something new because they have seen over time that we like to be innovative and try new solutions. [...] When we built the new boat, we sought technological solutions to be more ecologically sustainable. Also, we concluded that electric deck machinery would reduce the power requirement on board by twenty-five to thirty percent compared to old-fashioned hydraulics, hence saving costs” (Skipper, FHU).

4.3. Seafood group’s (SFG’s) main explorative phases

The main exploratory advancements in SFG occurred in three distinct phases (Fig. 4). In phase one (1984–1991), the most transformative explorative initiative occurred when the group entered the salmon farming industry and established SFU. Despite resource constraints, assets and knowledge from FHU were employed to support the start-up of SFU. In the decade following, SFU cooperated with other pioneers in the salmon farming industry to explore new technology and markets, address production- and environmental challenges, and increase production efficiency (Table 2).

Simultaneously, FHU was a pioneer in adopting new technological advancements that made their fisheries more efficient. For example, FHU was one of the early adopters of the Triplex and its forerunner, an explorative technology that revolutionized purse seine fishing by automating the fishing process (Valdemarsen, 2001): *X2 was developed as the forerunner of the Triplex and was somewhat experimental, but it worked well. It was the first one we installed of this kind* (Owner 2).

During the second phase (1996–2001), despite cooperating with

Table 2
SFU's main explorative initiatives since its founding.

		Description of explorative activities	Individual ambidexterity structures	Organizational ambidexterity structures	Intra- or inter-organizational structures
1984	SFU was granted one salmon-farming license.	Expanding into the emerging salmon farming industry.	Exploration and exploitation were handled contextually by OM2, OM1, and their father, the previous owner.	Structurally separated into a salmon farming unit (SFU).	Intra-organizational structuring
1986	Established a salmon slaughterhouse.	Exploring a new (to SFU) related industry close to SFU's business core as a first step to gaining control of SFU's value chain.	Exploration into the slaughterhouse industry and exploitation of everyday operations were handled contextually by OM2, the previous owner, and some senior staff.	Contextually handled within SFU. Eventually, a designated staff handled everyday operations.	Intra-organizational structuring
1996	SFU, in cooperation with External Partner 1 (EP1), bought a minor ownership share in a salmon sales company.	Explorative activities aimed at moving closer to the end market.	Employees who were already employed at the sales company at the time SFU acquired a minority stake managed the sale.	Structurally separated from SFU.	Inter-organizational cooperation
2001	SFU and EP1 founded a boat service firm.	Exploring a new related (to SFU) industry that further extended SFU's control of their value chain.	Exploration of this new venture and exploitation of everyday operations were handled contextually by OM2 and their partners owner-managers. Designated staff handled everyday operations.	Structurally separated into a new subsidiary.	Inter-organizational cooperation
2016	SFU acquired one showroom salmon farming license.	Exploration by developing a showroom in a nearby town. This new concept developed by SFU was later copied by other salmon farmers. Resembled tourism, a new, unrelated industry to SFU.	During the founding phase, OM2 and CB handled the exploration of creating a showroom and the exploitation of everyday operations in a contextual manner. Later, one of SFU's heirs was responsible for the showroom.	Structural separation of showroom into a subsidiary. The license for salmon farming that was associated with the showroom license was dealt with in a contextual manner by SFU.	Intra-organizational structuring
2017	SFU and EP1 established a well-boat firm cooperating with a third local salmon farming firm. SFU held 1/3 of the owner shares.	Explored a new, to SFU, related industry that enabled further control of the units' value chain.	Exploration and exploitation were handled contextually by OM2, Chief 1, and Skipper. Designated staff handled everyday operations.	Structurally separated into a new subsidiary.	Inter-organizational cooperation
2017	SFU and EP1 established a salmon smolt facility.	Exploring a new, to SFU, industry, enabling further control of the unit's value chain.	Exploration and exploitation were handled contextually by OM2 and CB. After founding, CB, DL, MM, and technical personnel vacillated contextually between SFU and this unit. Designated staff handled everyday operations.	Structurally separated in a new subsidiary.	Inter-organizational cooperation
2018	SFU and EP1 applied for and got granted a "green license" for salmon farming.	Acquired a salmon farming license that required innovative technological and operational solutions to reduce environmental challenges.	Exploration of new technological solutions and exploitation of SFU's everyday operations were handled contextually by OM2 and CB in the explorative phase. After that, the green license was integrated into SFU's salmon production.	Contextually handled in SFU.	Inter-organizational cooperation
2019	SFU and nearby salmon-farming firms cooperated in developing an innovative sea surveillance system to detect future algae blooms.	Innovation of new technology to solve an environmental challenge.	Exploration of new technology for algae surveillance was handled contextually by OM2 and their network partners. Cooperated with external consultants to further develop the system.	Integrated into SFU and their partners' salmon farming operations.	Inter-organizational cooperation
2020	SFU and three other salmon farmers established an air freight firm to export fresh salmon to new retail markets in Asia and Europe.	Exploration of new markets and infrastructure to meet challenges caused by the Covid-19 pandemic.	In the founding phase, exploration was handled contextually by OM1 and other local salmon farmers in cooperation with salmon export firms.	Structurally separated into a new subsidiary.	Inter-organizational cooperation
2021	Three research licenses were applied for and acquired based on explorative technological solutions that contribute to solving the industry's salmon lice problem.	Acquired a salmon farming license that required innovative technological or operational solutions.	Exploration of new technological solutions and exploitation of SFU's everyday operations were handled contextually by OM2, MM, and CB in the initial phase. After that, the licenses were integrated into the SFU's salmon production.	Contextually handled in SFU.	Intra-organizational structuring
2021	SFU and EP1 applied for offshore locations to farm salmon in the open sea in partnership with an expert in offshore installations. If successful, this endeavor could double SFU's production volume.	Acquired a salmon farming license that required innovative technological solutions.	Exploration of new technological solutions and exploitation of SFU's everyday operations were handled contextually by OM2, MM, CB, and several other senior staff members.	Structurally separated into a new subsidiary.	Inter-organizational cooperation

Table 3
FHU's main explorative initiatives during the study period.

		Description of explorative activities	Individual ambidexterity structures	Organizational ambidexterity structures
1986	Renewed and increased catch capacity by buying a larger, more efficient pelagic fishing vessel.	Exploring new catch technology.	OM1 and his father contextually handled the exploration of new technology while simultaneously running the old vessel.	Contextually handled in FHU.
2000	Renewed and increased catch capacity by buying a vessel with sand eel and blue whiting quotas, diversifying FHU into a fishery of related pelagic species. The old vessel was sold.	Related product diversification by expanding into fishing of, to FHU, new species.	Contextually handled and implemented into running operation by OM1 and vessel crew.	Contextually handled in FHU.
2000	A new, larger, and more efficient pelagic fishing vessel was built to facilitate the application of new catch technology and improve the utilization of quota shares. The old vessel was sold.	Exploring new (to FHU) trawl catch technology.	OM1, OM2, and the vessel crew contextually handled the design and integration of new technology and everyday operations.	Contextually handled in FHU.
2019	A larger and more efficient pelagic fishing vessel was built. Quota shares from a vessel bought in 2015 were transferred to this new vessel. The old vessel was sold.	By exploring new green technology, such as electric winches and cranes instead of commonly used hydraulic equipment, FHU increased efficiency and reduced costs.	OM1, Chief1, and Skipper worked contextually on designing and integrating new technology and everyday operations.	Contextually handled in FHU.

partners (Table 2), the group still had a limited resource base, resulting in relatively small-scale explorative initiatives. For instance, the boat service firm was established with only one vessel. The salmon farming industry underwent significant changes during SFU's initial two evolutionary phases (Aarset & Jakobsen, 2009). The exploratory projects in the first two phases required extensive and radical explorative solutions to meet governmental demands, solve biological challenges, and seize market- and technological opportunities. For instance, the mooring of sea salmon cages evolved from applying fishing equipment to advanced mooring systems designed for larger salmon breeding cages. These improvements were developed through continuous exploration and testing by industrial actors searching for new technological solutions and for more efficient salmon farming.

In the second phase, the most significant investment for FHU was its acquisition of additional quota shares for, to FHU, new fish species. To gain access to new fisheries, FHU built a vessel with trawl capacity, an exploratory catch technology for FHU. These investments were partly made possible by reallocating slack financial resources from SFU, demonstrating the group's ability to reallocate resources between the units to explore new opportunities.

In the third phase, lasting from 2015 to 2021, SFU and FHU experienced considerable growth that contributed to accumulating slack resources (Figs. 1 and 2). SFU utilized these slack resources, accumulated knowledge base, experience, networks, and partnerships to launch multiple large-scale exploratory projects in a condensed timeline (Fig. 4). By building on existing knowledge close to its business core when exploring new opportunities (Chen, 2017), SFU continued to grow and gain control over its value chain (Fig. 4). For example, to establish onshore freshwater salmon smolt production, SFU had to build new facilities and acquire new skills and knowledge. Although this was an exploratory initiative for SFU, their prior experience and knowledge of salmon farming allowed them to effectively develop this project. Moreover, SFU developed innovative technology and knowledge together with partners to solve challenges and meet government demands to acquire "green" and R&D salmon farming licenses (Fig. 4). Although SFG experienced significant growth in phase three, it still lacked the resources and knowledge to undertake its largest projects alone, such as the offshore salmon farming project (Table 2), necessitating collaboration with partners. In phase three, when building a new fishing vessel, FHU explored new cost-effective and eco-friendly technology (Table 3).

4.4. Exploring ambidextrous owner-managers as a key driver

In this section, based on empirical findings, we present the key drivers that were considered essential for a successful dynamic ambidextrous growth strategy and the long-term growth of the group. The first key driver that was identified was the importance of ambidextrous owner-managers. The owner-managers of SFG took the main decisions in SFG, positioning them as the primary key drivers of most activities.

"Owner 2 and I sit at the top of the group and make the final decisions" (Owner 1).

Although they did not use the term "ambidexterity" to describe their strategy, the owner-manager actions and mindset resonated with the literature's description of ambidextrous leaders (Lubatkin et al., 2006).

"Our primary focus is on operations. However, we believe it is vital to continually seek avenues for development" (Owner 1).

Consistent with family firm research (Lumpkin & Brigham, 2011), SFG's owner-managers held a long-term perspective that led them to channel surplus resources into new ventures to foster lasting growth.

"Not everything we do pays off in the short term. We must consider whether there is anything to gain from these decisions in the long term" (Owner 1).

"We have worked for a year to acquire three R&D licenses. [...] If we succeed, it will probably increase our production by 50–70%" (Owner 2).

At the individual level, by actively participating in both exploratory projects and operational tasks, the owner-managers gained extensive knowledge about various aspects of their business, aiding them in choosing what explorative initiatives to engage in.

"I think it is essential that the owners are close to the operation. They are on board the vessels, in the production facilities, meeting people,

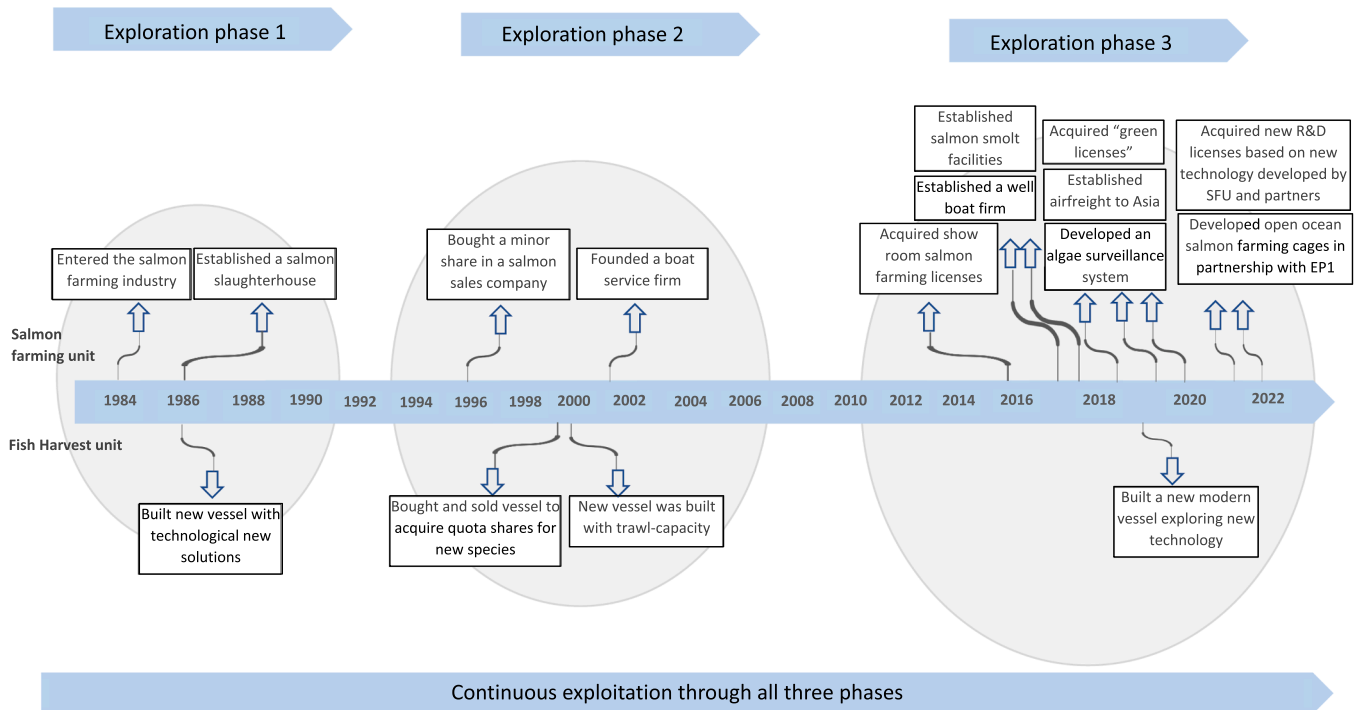


Fig. 4. Key exploration phases in SFU and FHU from 1984–2021 (see Tables 2 and 3 for details).

and building relations. That helps them differentiate the essential actions from the less important ones” (PM, SFU).

Typically for family firms (Lumpkin & Brigham, 2011), the owner-managers prioritized socio-emotional goals, such as fostering local employment opportunities and leaving a profitable firm for their successors.

“We aim to create local workplaces and profit for the municipality. Also, we sponsor events. The goal is to keep this community alive” (MM, SFU).

“We live in a small community and continuously try to develop more job opportunities” (Owner 2).

Faced with the challenge of securing competent personnel in a small community, the owner-manager aimed to create a work environment that promoted longevity in tenure.

“The employees are essential for our success. You are never better than the people who work for you. The most essential thing is probably to have people who are committed to the job, thrive in it, enjoy their job, and want to perform. We believe promotion and work-task changes can motivate ambitious people” (MM, SFU).

“Building a new fishing vessel is nice, but it might not be the most profitable solution. Nevertheless, the new vessel has boosted the crew’s motivation” (Owner 2).

The owner-managers emphasized the significance of promoting employee welfare in maintaining the group’s long-term success.

“The owners like to take care of the staff. If, for example, I ask if I can take workers bowling, grilling, or other well-being-related activities, they always say “yes” and bear the costs” (LM, SFU).

Moreover, the owner-managers aimed to create a forward-leaning and positive workplace culture by engaging middle managers and key personnel in discussions, decision-making processes, and innovation.

“The owners are not afraid to try something new. If, for example, a site manager or aqua technician suggests an idea that might work well, they are very responsive. We are a small business, and it is easy for me to have a coffee with [Owner 2] and say, “This is a project I want to do; what do you think?”” (LM, SFU).

This inspired individuals in the organization to pursue innovative ideas by sharing knowledge, encouraging creative thinking, and contributing to facilitating learning structures that supported job rotation, individual creativity, innovation, and personal growth (Jansen et al., 2009).

“I am constantly impressed by how much (SFU) is involved in, how open the owners are towards new ideas from employees, and how inclusive they are in allowing employees to work on what they find interesting. Perhaps that is why I like my job so much. [...] There is a high pace, will, and money to start new projects. It is a family business, [...] but it is very inclusive” (PM, SFU).

Another advantage of encouraging middle managers and staff to take on more responsibilities was allowing the owner-managers to delegate tasks to lower organizational levels, freeing up their own time and resources.

“I would like to spend more time on exploration. Currently, I spend about 60% of my time on day-to-day operations. I try delegating more exploitative activities in the group to free up more of my time” (Owner 2).

The empirical evidence underscored the significant role of the owner-managers’ visions, objectives, determination, and ability to balance exploration and exploitation dynamically. This insight suggests that top-managers individual-level decisions and actions notably influenced organizational-level strategy and outcomes (Eisenhardt, 2010; Felin & Foss, 2005; Volery et al., 2015).

4.5. Exploring strategic realignment as a key driver

Firms that lack a clear strategic intent to be ambidextrous tend to

become increasingly inert as they grow and age, focusing mainly on exploitation (O'Reilly III & Tushman, 2008). However, despite the lack of formal strategic planning, the group continuously monitored industry trends, evaluated new possibilities, and initiated explorative ventures over time.

“We do not have any formal strategy-planning processes for our explorative activity. However, we continuously monitor and evaluate new opportunities in the industry and discuss and decide on new initiatives on a case-by-case basis” (Owner 1).

The owner-managers believed that adopting an exploratory strategy prevented them from falling into a "development gap," aligning with Levinthal and March's (1993) concept of the "success trap."

“In the past, there were quite a few times when I said: "We should not take part in that." I often believed that what we had was good enough. [...] Now I say: "It is something new. OK, we will try". We have seen that if the development gap becomes too big and you lag too far behind, you must do something about it at some point. If the gap becomes so big, it takes considerable investments to close it [...], and firms often end up selling their businesses” (Owner 2).

“The industrial changes used to come at a slower pace, but now they come faster and faster. We must keep up; otherwise, we will be left behind and risk losing the whole business” (Owner 1).

During its early stages, the salmon farming industry encountered various difficulties, such as immature markets, salmon diseases, and a lack of technological solutions to boost production (Aarset & Jakobsen, 2009). As a result, SFU and other smaller salmon farmers faced financial struggles while striving to create new technological solutions to address these challenges (Aarset & Jakobsen, 2009). Over the years, multiple avenues were available to obtain new salmon farming licenses, from direct market purchases to application-based procurements like the "green" and R&D licenses. The application-based licenses, however, mandated the development of new technological and operational solutions and knowledge to address the aquaculture sector's environmental challenges (Directorate of Fishery Norway, 2023). When such opportunities emerged, SFU showed an ability to shift its focus towards exploration by facilitating innovation, knowledge development, and access to additional resources through collaboration with external partners (Table 2).

“It is great to be first, but being first comes at a cost. Despite the risks, we strive to be at the forefront of new technology and embrace innovation. We find that exciting and fun. We were the first in Norway to use salmon-lice lasers” (Owner 2).

In partnership with EP1, SFU was granted "green" and R&D licenses by developing and testing innovative technology, such as laser treatment, to address challenges with salmon lice (Table 2).

“We got granted new green salmon-farming licenses because of our use of new technology that reduces the number of salmon lice in the cages” (CB, SFU).

Exploration of innovative offshore salmon-farming technology could contribute to the upscaling of production by accessing limited offshore locations due to the scarcity of salmon-farming locations near the shore.

“The lack of salmon-farming locations is a challenge. If you want further growth, current localities must be extended, or we must access new locations” (CB, SFU).

SFG consistently explores new opportunities to address emerging challenges. For instance, in 2019, SFU experienced a revenue decline caused by a toxic algae bloom that led to the premature slaughtering of a

significant part of its stock (Proff.no, 2024). To combat this threat, SFU collaborated with neighboring salmon farmers and developed an innovative algae surveillance system to prevent future losses.

“We have joined partners in developing a program to monitor algae” (MM, SFU).

Furthermore, SFU implemented preventive measures to avoid future incidents by exploring new solutions to open-sea salmon farming in collaboration with partners.

“We hope our new offshore salmon farming facility will be more exposed to currents and weather. We do not see the same algae problems in more exposed areas as in the fjords. Therefore, we can move the salmon to such a location if we see algal blooms in the fjords” (MM, SFU).

During the COVID-19 pandemic, the hotel and restaurant market for salmon saw a significant decrease. However, the owner-managers demonstrated their adaptability by shifting their focus towards exploring new markets for fresh salmon in Europe and Asia by establishing an airfreight logistics firm in partnership with other local salmon farmers.

“We are four salmon farmers who have joined forces to establish a logistics firm to start airfreight of fresh salmon to Europe and Asia. We did it to access new markets during the COVID-19 pandemic” (Owner 1).

Due to production bottlenecks, the owner-managers implemented a strategy to gain control over SFU's value chain, leading to several explorative initiatives (Table 2). The group consistently explores technological advancements, particularly close to its core business (Chen, 2017), to optimize production, gain control of its value chain, and outperform competitors.

“Controlling the value chain has been a long-term goal achieved by gaining control of smolt production, well-boats, salmon-slaughter capacity, and exports to ensure security. There is still a shortage of well-boats; it is a lucrative industry” (Owner 2).

“We are probably one of the few salmon-farming groups controlling the entire food chain, from roe to trucks” (Owner 1).

After entering the salmon farming industry, SFU improved production efficiency and increased control over its value chain by exploring new initiatives, mainly by building on its core competencies (Chen, 2017).

“It is not that we do not believe in other industries. Nevertheless, since the development in the salmon farming industry has gone so fast, we have slightly followed the approach of ‘stick to what you know’” (Owner 2).

For example, when constructing a new salmon slaughterhouse, SFU explored robot technology, sophisticated production lines, and other cutting-edge solutions to bolster scale and efficiency.

“Either we had to continue with the slaughterhouse we had and only slaughter our salmon, or we could expand to slaughter fish from other salmon farmers. We thought that the one who started first was probably the one who would have the most opportunities in the future. [...] So, we wanted to be first” (Owner 1).

Despite entering multiple explorative projects, the owner-managers stated that they did not aim to always be at the forefront of technological or market innovations since large explorative initiatives were expensive, and failure or miscalculation could have serious financial

consequences.

“You do not always want to be the first to do something because you never know the consequences” (Owner 1).

Regardless of their exploration successes, some respondents expressed concerns about possible neglect of core operations.

“We have had many new projects. We must ensure that exploring new opportunities does not come at the expense of our core business” (MM, SFU).

The owner-managers and their heirs believed that growth and exploration should be based on a healthy financial foundation.

“A sound and financially solid base is essential for exploring and expanding our business. [...]. It is about renewing oneself while focusing on everyday operations” (Owner 1).

According to the respondents, focusing solely on seeking new business opportunities at the expense of core activities could lead to a decline. Therefore, despite frequently exploring new opportunities, the respondents believed that exploitation of the group’s core business was vital.

“I think it is essential to focus on our core business [...]. Otherwise, daily operations will suffer [...], and you will risk losing your business” (MM, SFU).

“There are many projects that we sometimes struggle to land. That is what (PM) is hired to do: to have a significantly better overview of our projects. We must be able to abandon projects that are not good. Moreover, we must focus more on what we really want to do” (Owner 2).

Sometimes, due to the rapid pace of innovation, the group moved on to new ventures before fully capitalizing on the current ones. This approach reflects [Levinthal and March’s \(1993\)](#) “failure trap,” where firms undertake numerous exploratory projects, many of which will typically fail ([Levinthal & March, 1993](#)). Hence, over time, SFU had experienced that they should be more selective towards what innovative ideas to pursue.

“At times, we may have been overly eager to explore new ideas. Thanks to our financial surplus, we have had the chance to do so. [...]. Nevertheless, we have not always done a good job of incorporating these innovations before embarking on fresh endeavors” (Owner 2).

4.6. Exploring structural adaptation as a key driver

Since the founding of SFU, financial and human resources had been strategically reallocated between exploration and exploitation and between the units to enable both sets of activities to contribute to securing the longevity of SFG.

“In recent years, salmon farming has been the primary source of income for the group. However, the salmon unit barely survived when we started salmon farming in the eighties and well into the nineties. Back then, the fishing unit allowed us to keep going” (Skipper, FHU).

Entering the emerging Norwegian Atlantic salmon farming industry was a significant explorative step for SFG. When entering this industry, knowledge, equipment, and experience from fisheries were applied to develop SFU.

“Initially, we moored the salmon cages with trawl doors and ropes. Much of the gear was taken from (FHU). We used the gear based on experience with mooring from fishing boats, knowing, for instance, that trawl doors were heavy enough to hold the salmon cages in rough weather. Today, such knowledge would not be sufficient because all salmon farming equipment at sea has become much larger and more advanced, and the governmental documentation requirements have become much stricter” (Owner 2).

SFU’s success over the last decades enabled the diversion of surplus resources toward constructing advanced fishing vessels and acquiring additional quotas for FHU.

“It was great to have the financial safety net of the SFU when we built the new fishing vessel” (Owner 1).

New projects were frequently handled contextually alongside daily operations within and across SFG’s units ([Birkinshaw & Gibson, 2004](#)). At the individual level, owner-managers and senior staff members frequently alternated contextually between routine operations and explorative activities.

“We do not always establish separate units to handle all new activities; we pursue new projects on top of everyday tasks” (PM, SFU).

“We are experiencing some challenges because we are growing so quickly. We do not have all the necessary human resources; therefore, new projects are often added to personnel’s existing tasks” (PM, SFU).

Encouraging staff to alternate between everyday operations and exploratory projects was considered beneficial. Hence, such alternation could be rewarding for individual staff members.

“Our experience from the day-to-day operations partly drives the development of the (Offshore salmon project). We draw inspiration from the challenges we face in regular salmon production and use them to develop and improve the project” (MM, SFU).

“Some rise in the ranks if they perform well and contribute with new ideas” (Owner 1).

The demanding nature of shifting focus contextually between operational and exploratory tasks sometimes caused tensions at organizational and individual levels.

“We do not always have enough time, as so much happens in both units. It is the flip side of growth [...]. We would be pleased if someone had time to contribute to the other units” (Owner 2).

“I have gotten used to having a lot to do. However, it is okay to say no when I have too much to do. I think it is good to alternate between new projects and day-to-day operations” (LM, SFU).

As SFG expanded, new separate units with specialized expertise were established to manage additional exploratory projects.

“I think that if we are to succeed in future developments and exploration initiatives without compromising operations, we may have to specialize more by allocating staff primarily to these tasks” (PM, SFU).

“As the units grow and get more complicated, the business must become more divided and specialized regarding responsibilities and work tasks between and within the units” (Chief, FHU).

Although contextual ambidexterity sometimes caused tension, dividing new initiatives into separate units and subsidiaries also posed

challenges. Aligning with [Levinthal and March \(1993\)](#), rigid boundaries between explorative and exploitative units can impede information and knowledge transfer, resulting in autonomous systems that struggle to adapt to changing business environments. SFU partly avoided such rigidity by incorporating existing staff into explorative activities.

“We recruit and promote people from within the organization for new projects if possible. If we promote someone, we recruit new people to fill the gap” (MM, SFU).

SFU’s owner-managers believed that smaller salmon farmers, such as themselves, needed to join forces with others to explore costly technological avenues and reduce risk.

“The collaboration between [SFU and EP1] has shaped our organization. We collaborated to explore new business opportunities and solutions that each company was too financially weak to pursue alone” (CB, SFU).

Such cooperations required structural separation of these projects into separate units ([Table 2](#)).

“Collaboration with other farmers and suppliers is essential for successful development. We would probably have been unable to develop the offshore salmon cages without collaborating. One of our partners has completely different competencies regarding offshore conditions because they are experienced in building offshore installations for the oil industry. We know aquaculture but do not know what natural forces we must calculate for in the open sea” (MM, SFU).

Cooperation with the owner-managers’ networks, cultivated over decades, continuously facilitated new business alliances and knowledge creation, gave access to external resources, and strengthened negotiation ability.

“The owner-managers meet other salmon farmers; they have several such networks” (PM, SFU).

“Together, we can, for example, negotiate two thousand tons instead of one thousand tons of salmon feed” (Owner 2).

Unlike SFU, FHU conducted its exploratory efforts independently and contextually without involving external partners ([Table 3](#)).

“We entered the blue whiting and sand eel fishery in 2000 by buying a fishing vessel with quota shares for catching these new species. When purchasing these new fishing rights, we needed a vessel that

could trawl in addition to fish with traditional purse seines” (Owner 2).

“Our goal is to excel in our specific area of the fishing industry and avoid spreading our attention in too many directions” (Skipper, FHU).

4.7. Exploring knowledge management as a key driver

The aquaculture industry’s rapid and radical growth provided a wealth of new knowledge for industrial players. SFU established solid partnerships and networks to gain and leverage this new knowledge. Moreover, these alliances contributed to spreading risk and acquiring additional resources.

“In the industry’s early days, all the salmon farmers helped each other. The salmon farmers were very open to sharing information and solutions. There was a lot of trial and error, and as soon as someone found a new solution to a problem, they spread it to the other salmon farmers. It seemed that when someone thought of a new solution, they were proud to tell others about it. I am not sure it would have been possible to start salmon farming without this cooperation” (Owner 2).

The empirical findings indicated that SFG frequently benefited from knowledge from its external business environment. This influx of information fostered new ideas for exploratory and exploitative projects.

“They (a neighbor fish farm) started with trout farming in the late 70 s before the salmon farming licenses came. I interned with them for a month and learned a bit about fish farming before we started ourselves” (Owner 2).

The owner-managers’ extensive contact with partners and markets allowed them to gain first-hand knowledge of technological and market changes, leading to more innovative projects and initiatives despite the group’s limited resource base.

“Discussing our experiences with other salmon farmers in our community is highly beneficial. Collaboration is a strength for us, allowing us to share insights on new techniques and their outcomes, including successes and areas for improvement” (PM, SFU).

“I believe that suppliers often contribute ideas to Owners 1 and 2, particularly for technological solutions. (...) However, an increasing number of ideas originate from within the group. Typically, top management introduces ideas for major projects” (PM, SFU).

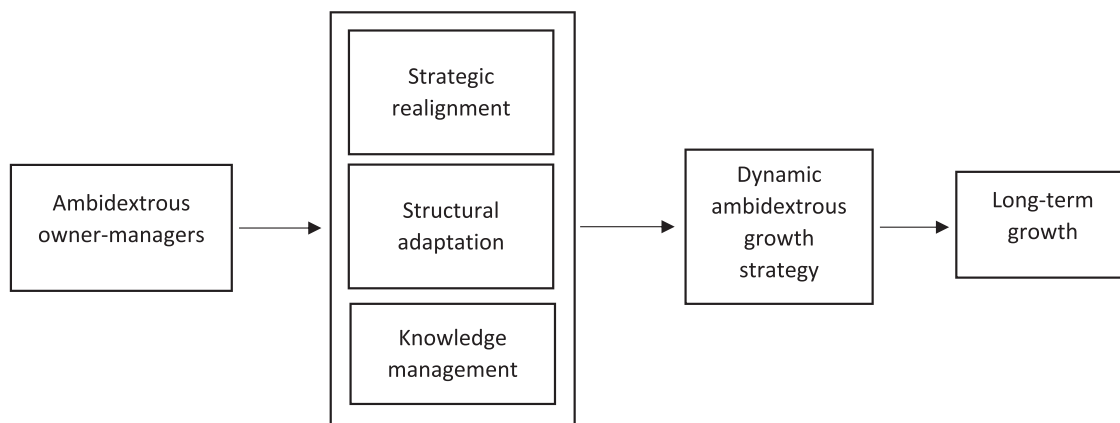


Fig. 5. Theoretical Framework: The interplay between key internal drivers for a dynamic ambidextrous growth strategy.

Additionally, the owner-managers fostered a culture of continuous learning that encouraged knowledge generation and exchange within the group, leading to explorative and exploitative innovations (Dezi et al., 2019; Levinthal & March, 1993).

“We have a lot of internal meetings to find out where we want to be, what we should focus on, and what we should do. Feedback from middle managers is essential. Of course, not all their ideas are implemented. [...] Regarding, for example, types of service boats to buy, salmon cages, and rafts, it is mostly those who are at the different operational levels who contribute to innovation” (Owner 2).

The owner-managers and other senior staff actively passed on their knowledge to the younger staff and heirs through apprenticeship and tutoring.

“Knowledge-sharing, including providing information to the rest of the organization about what we are doing, is a key driver of successful development” (Owner 1).

“We use experience transfer. More experienced employees train new employees” (Chief 2, FHU).

Supportive and trusting learning environments are prevalent in family firms, where traditional family values like emotional attachment, shared values, and mutual respect are highly valued (Preciuk & Wilczyńska, 2020).

“There is still much knowledge and experience to be transferred. I try to follow in my father’s footsteps to learn. To see what is going on and what the job is about” (MM, SFU).

However, family continuity can lead to inertia (March, 1991). In SFG, the successors’ work experience from other organizations before joining SFG, combined with inputs from their extensive networks, partly counterbalanced inertia.

Heirs had been introduced to the owner-managers vast network from their early years. These meetings taught them how, where, and when their fathers connected with new potential partners. Hence, knowledge of building networks was transferred, securing network continuity.

“Uncle and Dad have introduced us to all sorts of people in their vast network, not just those we felt we needed to know at the time. It has proven very useful to know people on other fishing vessels. We exchange a lot of information between the boats. I think that if I had started as a skipper without having attended all the fishing fairs and the annual meetings of the fishing organizations that Dad brought us to, we would be more alone out there at sea” (Skipper, FHU).

5. Discussion

This study responds to calls to examine the micro-foundations of dynamic ambidexterity at multiple organizational levels by studying an SME that had achieved long-term growth by successfully pursuing a dynamic ambidextrous strategy (Eisenhardt et al., 2010; Volery et al., 2015; Tarba et al., 2020; Wilden et al., 2018). By leaning on dynamic ambidexterity and knowledge management theories (Dezi et al., 2019; Durst et al., 2023; Luger et al., 2018), we identified four vital key internal drivers’ that we argue were vital for SFG’s successful long-term growth (Fig. 3). In the following, we discuss how these drivers were combined, realigned, and shifted between explorative and exploitative activities to sustain a dynamic ambidextrous growth strategy over time (Fig. 5).

5.1. Ambidextrous owner-managers

Aligning with theory, we argue that the successful application of a dynamic ambidextrous growth strategy in SFG required that the owner-managers’ of SFG held the strategic and operational abilities to balance exploration and exploitation at the individual level (Chang & Hughes, 2012; Lubatkin et al., 2006; Volery et al., 2015) and to dynamically shift this balance over time (Luger et al., 2018). The extensive industrial experience of SFG’s owner-managers provided deep knowledge of internal processes, markets, and the group’s business environment. We suggest that the owner-managers’ dual strategic and operational roles and ambidextrous mindset allowed them to swiftly realign SFG’s strategies, allocate and reallocate resources, and manage knowledge efficiently between explorative and exploitative activities to meet rapid changes in their business environment. Aligning with Fourné et al. (2019), we argue that this flexibility partly counterbalanced SFG’s resource restraints.

Some scholars suggest that SMEs could benefit from pursuing either exploitative or explorative strategies (Ebben & Johnson, 2005; Wenke et al., 2021). Aligning with the arguments of Lubatkin et al. (2006) and Chang and Hughes (2012), our findings support that an ambidextrous strategy can benefit some SMEs, like SFG. To successfully follow this strategy, we argue that SFG relied heavily on its owner-managers’ willingness and ability to allocate the group’s limited resources to engage in both exploration and exploitation activities, adapt organizational structures, and facilitate knowledge processes. Additionally, our analysis, in line with the findings of Chang and Hughes (2012) and Lubatkin et al. (2006), demonstrates the importance of the owner-managers’ ability to establish an organizational culture and learning structures that promote ambidextrous behavior. Moreover, the results indicated that the capability of SFG’s owner-managers to build networks and cooperate with partners to reinforce their resource- and knowledge base had played a crucial role in the group’s long-term growth.

Like many family-owned businesses, SFG’s owner-managers were concerned with long-term socioemotional objectives, such as succession planning and community engagement (Lumpkin & Brigham, 2011). The owner-managers initiated several innovative projects, either independently or in collaboration with others, to ensure the group’s long-term sustainability and expansion. These projects required significant financial and human resources and the acquisition of new knowledge and technological advancements, while their future benefits were uncertain. Hence, our findings support Lumpkin and Brigham’s (2011) argument that having a long-term perspective in family-owned businesses can be positively linked to innovation and proactiveness since long-term focus encourages creativity and experimentation, promotes pioneering and empowers employees to take entrepreneurial initiatives. Our findings align with March’s (1991) original thinking, which was later elaborated upon by Wilden et al. (2018), regarding the individuals’ role in balancing exploration and exploitation at the organizational level.

5.2. Strategic realignment

SFG’s history suggests that the group had an ability to adapt to changes in its business environment by dynamically shifting its exploration—exploitation balance to meet challenges and seize opportunities (Luger et al., 2018). Dynamic ambidexterity (Luger et al., 2018) was achieved by dynamically realigning the group’s strategy between explorative and exploitative activities over time. We argue that this capability was key to SFG’s long-term growth and sustainability. The most significant strategic explorative leap in SFG’s history was to enter the salmon farming industry. Further, the group adopted an ambidextrous strategic approach to gain control over SFU’s value chain by exploring new technologies, markets, and industries. Similarly, FHU implemented an exploratory strategy to enhance the efficiency of their fisheries and expand into new ones.

The owner-managers of SFG stated that being the first to pioneer new

technology or markets was not a priority, as it could pose a financial risk if the new venture did not prove successful. Nevertheless, the group recognized the strategic benefit of occasionally taking the lead to capitalize on new opportunities and stay competitive in a rapidly changing market. Additionally, the owner-managers utilized exploration and exploitation as a strategic tool to motivate employees by providing inspiring and diverse work tasks. Explorational successes in SFG seemed to reinforce their perception that exploration equaled growth, leading to a strategy focusing on further exploration. This aligns with [Levinthal and March's \(1993\)](#) proposition that success leads to increased knowledge and confidence, enhancing the probability and efficacy of future explorative pursuits.

5.3. Structural adaptation

When establishing SFU, the group created synergetic value by utilizing knowledge, resources, and capabilities from FHU's fishing operations. After entering the salmon farming industry, the group effectively combined inter- and intra-organizational resources, knowledge, and capabilities to explore new opportunities, mainly close to their operational core ([Chen, 2017](#)). Examples of their efforts included utilizing their salmon farming expertise to establish a well-boat firm and several salmon slaughterhouses and to initiate an explorative open sea salmon farming project ([Table 2](#)).

The owner-managers of SFG balanced their time and attention contextually between exploration and exploitation in both units, demonstrating ambidextrous abilities at the individual level ([Gibson & Birkinshaw, 2004](#); [Chang & Hughes, 2012](#)). Additionally, contextual ambidexterity ([Gibson & Birkinshaw, 2004](#)) allowed other staff members to utilize their knowledge and competencies from daily operations to explore new activities. This contextuality motivated employees to develop fresh ideas and initiatives and encouraged a "can-do" attitude in the group.

Nevertheless, contextual ambidexterity sometimes strained the organization and its members despite its benefits as the group expanded. SFU found that the contextual ambidexterity approach was less effective when expanding into new domains, such as offshore salmon farming, which required radically new skills and resources. It appeared that the contextual approach worked best when explorative efforts were closely aligned with the company's core business activities, as suggested by [Chen \(2017\)](#). Hence, the owner-managers acknowledged that not all employees and heirs had the expertise and time to handle exploration-exploitation tasks contextually. They believed that, for some projects, performance and efficiency would be enhanced by letting employees focus on a single set of activities. Therefore, as SFG matured and grew, new units and subsidiaries were increasingly founded to handle new projects.

Furthermore, the empirical findings revealed that the group was able to adapt to ambidexterity by frequently switching between intra- and inter-organizational structural solutions to access additional resources and knowledge from partners ([Kauppila, 2010](#)). This necessitated structural separation ([Table 2](#)). Such inter-organizational partnerships facilitated knowledge exchange, risk reduction, resource consolidation, and large-scale effects, leading to performance growth ([Colombo et al., 2012](#); [Kauppila, 2010](#); [Miller et al., 2016](#)). However, the owner-managers realized that structural separation could lead to a lack of diversity, resulting in a narrow perspective and underutilization of complementary internal knowledge. Therefore, they aimed to counteract the negative consequences of structural separation through, for example, joint meetings involving all the heirs of SFG. *We try to find time so that all the owners and heirs are at least involved in the big decisions for both units. It is a challenge (Owner 2).*

5.4. Knowledge management

We partly attribute SFG's competitive edge and sustained growth to

the group's ability to manage knowledge, which aligns with [Dezi et al. \(2019\)](#) regarding the importance of knowledge management capabilities as a competitive resource. The owner-managers' approach to acquiring and managing knowledge shaped SFG's group-level knowledge management practices, enabling a balance between exploiting existing capabilities and exploring new opportunities at the organizational level ([Dezi et al., 2019](#); [Levinthal & March, 1993](#); [March, 1991](#); [Mom et al., 2007](#)). The owner-managers' openness to new ideas from lower hierarchical levels encouraged the exploration of new opportunities and the exploitation of existing capabilities within the group. Hence, the knowledge management abilities of the group and its members ([Dezi et al., 2019](#)) were a key driver for developing and maintaining a dynamic ambidextrous growth strategy. We suggest that the intentional and consistent knowledge transfer from experienced owner-managers and senior staff to the rest of the team through apprenticeships and tutoring demonstrates their commitment to maintaining and developing SFG's knowledge resources.

Throughout its history, SFG has gained valuable knowledge and information from alliances and networks, which had inspired ideas and activities, making the owner-managers emphasize the importance of inter-organizational knowledge-sharing. Additionally, the owner-managers did not solely focus on maintaining and developing their networks; they also passed on their knowledge of acquiring new network partners to their heirs by bringing them along to get acquainted with network partners from early childhood, ensuring the continuity of their networks and preventing knowledge loss.

6. Conclusion

Our study extends theory by providing a holistic view of how SMEs, like SFG, can leverage internal and external resources and knowledge to achieve sustainable growth by applying a dynamic ambidextrous growth strategy. Following the proposal of [Tarba et al. \(2020\)](#), our contribution to theory involves applying a multi-level perspective to study dynamic ambidexterity in SMEs. By taking a multi-level perspective, this study provides insight into some essential micro-foundations guiding SMEs, like SFG, in navigating the delicate balance between exploration and exploitation.

Aligning with [March \(1991\)](#), our findings suggested that SFG's dynamic ambidexterity relied on both individual and firm-level drivers. Through the study of SFG, we illustrated the pivotal role of ambidextrous owner-managers as a key internal driver in enabling SMEs' dynamic ambidextrous growth strategy. Their dual strategic and operational roles and ambidextrous mindset facilitated prompt decision-making, strategic realignment, structural adaptation, and resource allocation between explorative and exploitative activities at the organizational level. Additionally, our findings highlighted the value of inter-organizational collaboration ([Kauppila, 2010](#)). In essence, we argue that the successful growth of SFG can be attributed to the synergistic interplay of ambidextrous leadership, the group's capability for strategic realignment, structural adaptability, and knowledge management.

By integrating knowledge management ([Dezi et al., 2019](#)) and the dynamic ambidexterity perspective ([Luger et al., 2018](#)), we offer a new lens through which ambidexterity in SMEs can be viewed. To our knowledge, few studies have taken a dynamic and longitudinal perspective on ambidexterity to empirically explore the micro-foundations of SMEs' capacity to apply a dynamic ambidextrous growth strategy to achieve long-term growth. We believe scholars, firm owners, and managers can draw inspiration from this case study as it highlights the significance of having ambidextrous owner-managers, a flexible group structure, and effective knowledge management to enable the implementation of dynamic ambidextrous strategies to secure long-term growth in SMEs.

Limitations and suggestions for future studies

This study has several limitations. Primarily, the focus on a single family-business group of medium size in a specific industry constrains the generalizability of our findings to other SMEs or industries (Brinkmann & Kvale, 2015; Yin, 2014). Future research might expand this scope to firms differing in size, ownership structures, industry, and geographic location. Moreover, focus on whether other key drivers for a dynamic ambidextrous strategy crystallize if the exploratory initiatives are taken far from the existing business core would be of interest (Chen, 2017). The family dynamics, although touched upon, remained peripheral in our analysis. Contrasting family versus non-family SMEs concerning dynamic ambidexterity's micro-foundations could be an interesting avenue for future studies. Furthermore, the sustainability of ambidextrous strategies through leadership transitions, despite having met some scholarly attention (e.g. Preciuk & Wilczyńska, 2020), calls for future research. Additionally, SFG's foray into salmon farming was opportunely timed, inviting inquiries into how timing might affect SMEs' successful implementation of ambidexterity.

From a methodological standpoint, our sampling was confined within the group, limiting external perspectives to a few secondary sources (Directorate of Fishery Norway, 2024; Proff.no, 2024; Seafood Group (web-page), 2021; Vadset, 2019). Engaging stakeholders beyond the management group, such as other employees, partners, customers, and locals from outside the group could have offered different perspectives. Moreover, using a snowball sampling technique can be potentially biased toward owner-manager perspectives. However, an evident breadth of expression within the group partly counterbalanced this bias. For example, one respondent stated, "I am not afraid to bring anything up, and I do not think anyone else is either" (LM, SFU). Additionally, an optionality in the respondent selection minimizes informant bias (Yin, 2014). As Hannevig and Bertheussen (2020) highlighted in their study of the exploitation-exploration dilemma of fishing vessels with institutionally protected quota shares, industrial factors' influence on ambidexterity remains a fertile ground for exploration.

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Author statement

H. Hannevig conceptualized and designed the study, collected and analyzed the data, made figures and tables, and wrote the manuscript. Professor B.A. Bertheussen contributed to the conceptualization, the structure of the paper, the data analysis, the figures, the tables, and the discussion.

Declaration of Competing Interest

The authors declare no commercial or financial relationships that could be construed as potential conflicts of interest.

Data availability

Before beginning the study, we agreed with the participants that all non-public data collected from the case group would be treated with confidentiality and anonymity. As a result, the transcribed data, the participating firms' names, and the respondents' names are not included in the published text.

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