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Microfoundations for business model innovation: Exploring the interplay between individuals, practices, and organizational design

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Abstract

This article explores the microfoundational aspects of business model innovation (BMI) under conditions of rapid change caused by technological and regulatory disruptions. Based on empirical analysis of relevant industry incumbents, we address the following research question: *How do key microfoundational elements, notably individual behaviors and organizational processes and design, interact to drive business model innovation*? Despite its importance, little is known about this question. We explore the microfoundations of BMI via a multiple-case study method. We specifically investigate the interplay between microfoundational components at varying levels (individual, process, interaction, and organizational design) in three incumbent companies in Finland's power electricity sector. Theoretically, this article's contributions lie in examining the interaction mechanisms that drive the interplay between microfoundational elements at macro and micro levels during the different BMI stages. These mechanisms are critical for shaping interaction processes in BMI and supporting value creation and appropriation. For managers, our research provides a microfoundational framework for guiding BMI, including guidelines for critical tasks such as promoting a creative culture, enhancing cross-functional collaboration, balancing innovation with operational stability, aligning with industry trends, and preparing the organization for continuous innovation.

KEYWORDS

business model innovation, digital servitization, dynamic capabilities, microfoundations, strategic change

1 | INTRODUCTION

Companies must often reconsider their business models—the logic, architecture, and mechanisms for creating, delivering, and capturing value (Teece, 2010)—to address external disruptions and changing organizational contingencies (Geissdoerfer et al., 2022). Such a process often entails innovating the business model (Aspara et al., 2010). Business model innovation (BMI) implies changing the business model's essential elements (Foss & Saebi, 2018),

that is, value creation, delivery, and capture activities (Gassmann et al., 2020), and how these elements are linked. Extant research offers valuable insights into the overarching dynamics of BMI (Snihur & Markman, 2023). It provides an understanding of the driving forces of BMI across industries, the organizational responses to evolving environmental conditions, and their consequences for collective outcomes that impact companies' performance (Fjeldstad & Snow, 2018; Foss & Saebi, 2017; Latifi et al., 2021). Thus, the literature has addressed the core issues of BMI conceptualization, BMI as an organizational change process, BMI as an outcome, and the consequences of BMI (Foss & Saebi, 2017, 2018; Wirtz & Daiser, 2018).

However, while it is a prevalent form of innovation and constitutes a key area for future innovation management research, BMI is still understudied compared to product and process innovation (Spanjol et al., 2024; Spieth et al., 2025). Many matters remain underexplored and poorly understood or in search of cumulative theoretical foundations, clarifications, and operationalization (Foss & Saebi, 2018). Foss and Saebi et al. (2017) identified research gaps concerning external and internal antecedents; moderators at the macro, firm, and micro levels; outcomes; and boundary conditions (e.g., fields of application). Notably, BMI is a scholarly domain dominated by macrolevel explanations regarding success, performance, or competitive advantage and in search of microfoundational accounts (Mancuso et al., 2024; Palmié et al., 2023). An important gap remains in the exploration of the microfoundations of BMI, that is, the interplay between underlying organizational members' agency/behavior and interactions, organizational processes, and organizational designs (Foss & Saebi, 2017; Ringvold et al., 2023). Ultimately, BMI develops due to human agency, and choices concerning, for example, organizational design and processes are made to facilitate BMI ideation and implementation and generally support the new business model. BMI is both a firm- and a system-level activity (Zott & Amit, 2010) but is ultimately driven by human decisions, behaviors, and interactions (Andreini et al., 2022). From a microfoundational perspective, agency is attributed to individuals (Kurtmollaiev, 2020), and the micro level is primary (Contractor et al., 2019). Thus, research on the microfoundations of the BMI process must examine the firm's governance system and the attributes of employees, managers, and the top management team (TMT) (Spanjol et al., 2024).

Despite the relevance of adopting a microfoundational perspective on BMI, with few recent exceptions, the microfoundations and BMI research streams have few touchpoints (Palmié et al., 2023). Studies address microfoundations of related domains, such as value creation and capture mechanisms (Mancuso et al., 2024), HR practices (Loon et al., 2020), global strategies (Contractor et al., 2019), and dynamic capabilities (Randhawa et al., 2021; Sandberg & Hultberg, 2021; Santa-Maria et al., 2021; Teece, 2007). Nevertheless, only a few studies have consistently adopted the microfoundational perspective in a BMI setting (e.g., Ringvold et al., 2023). This is a significant problem, not only from a research perspective but also from a practical perspective, as the lack of attention to microfoundations means that key aspects of decision support for managers are missing. Such decision support is essential for companies, particularly those within disrupted traditional sectors dominated by deep-rooted and conservative practices (Malmi et al., 2023). Disruptive forces offer opportunities for BMI but require a business logic shift (Volberda et al., 2017). Understanding such a change in business logic requires addressing the interplay of individual agency, organizational processes, and design elements in BMI (Spanjol et al., 2024). A lack of understanding of the underlying microfoundations driving BMI prevents

Practitioner points

- Critical managerial tasks during business model innovation (BMI) include aligning strategy with industry trends, promoting an innovative culture, enhancing cross-functional collaboration, balancing innovation with operational stability, and preparing the organization for continuous innovation and adaptation.
- Senior leaders must clearly communicate the strategic vision for scoping BMI and balancing long-term goals with adaptability by promoting autonomy and agile methodologies to create flexible, silo-breaking organizational structures and ensure responsiveness to market opportunities while maintaining operational stability.
- To accelerate BMI, managers must promote an innovative culture by enhancing communication channels, promoting cross-functional project teams, setting incentives and rewards, and establishing internal innovation programs that include hiring innovation champions, training employees, and reinforcing behaviors that drive BMI.
- Engaging with external stakeholders, such as customers, regulators, and industry forums, provides joint innovation opportunities, fosters co-creation, and accelerates new business model recognition, development, and adoption.

transformative business logic change, potentially overlooking or misdirecting any attempts to foster BMI (Ringvold et al., 2023). Consequently, this article addresses the following research question: *How do key microfoundational elements, notably individual behaviors and organizational processes and design, interact to drive BMI*? Here, we take "microfoundations" to refer to both the actual phenomena and their theoretical representation.

Following the conceptual underpinnings of the microfoundation movement in strategy and organization theory (Felin et al., 2015), our research examines the microfoundations that drive BMI in the context of a multiple-case study aimed at investigating the factors that foster or hinder BMI within three incumbents in Finland's power electricity sector. This sector, once conservative and rooted in traditional practices, now faces disruptive challenges from digitalization, fluctuating energy prices and costs, regulatory changes, and emerging renewable technologies. Consequently, companies must discover new, often digital, business models.

The contributions of this article are twofold. First, we break new ground from a conceptual perspective by investigating the interplay between microfoundational components and outlining interaction mechanisms. Specifically, we develop a process framework that addresses BMI in three phases: opportunity identification, business model development, and integration and implementation. While this sequence is not new per se, the novelty of our contributions lies in examining the mechanisms that drive the interplay between microfoundational elements at different levels during the three stages. These mechanisms are critical for shaping interaction processes, such as sensemaking, strategizing, coordination and integration, information processing, learning, and knowledge sharing (Andreini et al., 2022; Felin et al., 2012), and supporting value creation and appropriation (Fjeldstad & Snow, 2018; Sjödin et al., 2020). Here, we underscore the crucial role of individuals in fostering BMI, mainly focusing on the importance of managerial agency (Helfat & Peteraf, 2015). In doing so, the research adds to the microfoundations of the dynamic capabilities research stream by connecting Teece's (2007) approach and the microfoundation movement (Felin et al., 2015), also shedding some light on the individual-level components (Helfat & Peteraf, 2015). Second, from a managerial viewpoint, our research may support and guide BMI efforts by offering relatively concrete suggestions for fostering an innovation culture, enhancing cross-functional collaboration, balancing innovation with operational stability, aligning with industry trends, and preparing organizations for continuous innovation.

The rest of the article is structured as follows. The next section presents the theoretical underpinnings for the research, characterizing BMI from a microfoundational perspective as an organizational change process that spans levels in the organization. Section 3 presents the article's multiple-case study methodology and design, describing the research strategy and context, case selection, the data sources and their collection, the data analysis approach, and the trustworthiness and rigor of the analysis and conclusions. Section 4 introduces the main findings, addressing macro- and microlevel relationships in BMI through the microfoundational lens. Section 5 discusses the big picture, highlighting the links between critical microfoundational elements at the micro and macro levels and the situational, action-creation, and transformational mechanisms driving their interplay. Section 6 presents the research's takeaways and implications, including conceptual and practical contributions. Finally, the last section presents the main limitations of this research and suggestions for future research.

2 | BMI AS A MULTILEVEL ORGANIZATIONAL CHANGE PROCESS

2.1 | Representing the BMI process: A microfoundational approach

BMI denotes a strategy-driven corporate change (Aspara et al., 2011; Leih et al., 2015) where strategy guides BMI and influences the resulting business models (Casadesus-Masanell & Ricart, 2010; Cortimiglia et al., 2016). BMI may be examined as both a process and a content phenomenon, but our primary interest is in the process of adapting the organization to changing organizational and environmental conditions (Saebi, 2015; Saebi et al., 2017; Zott & Amit, 2010). To gain insight into the BMI process as it plays out within companies, we begin by fitting the abstract process of BMI, as described in the extant literature, into a specific framework. This exercise aims not to derive particular predictions but to prepare the ground for our empirical examination of BMI later in this article, where we delve into the finer, still poorly understood mechanisms of BMI.

Conceptually, BMI can be represented as a linear multistage process, from discovery to ideation and implementation (Gassmann et al., 2020; Morris et al., 2005). In actuality, BMI deviates from linearity (Bucherer et al., 2012), as it involves (bidirectional) interactions between the various phases from discovery to implementation. Additionally, BMI is a highly complex process, not only because of its nonlinearity but also because it involves interactions between multiple organizational components placed at different

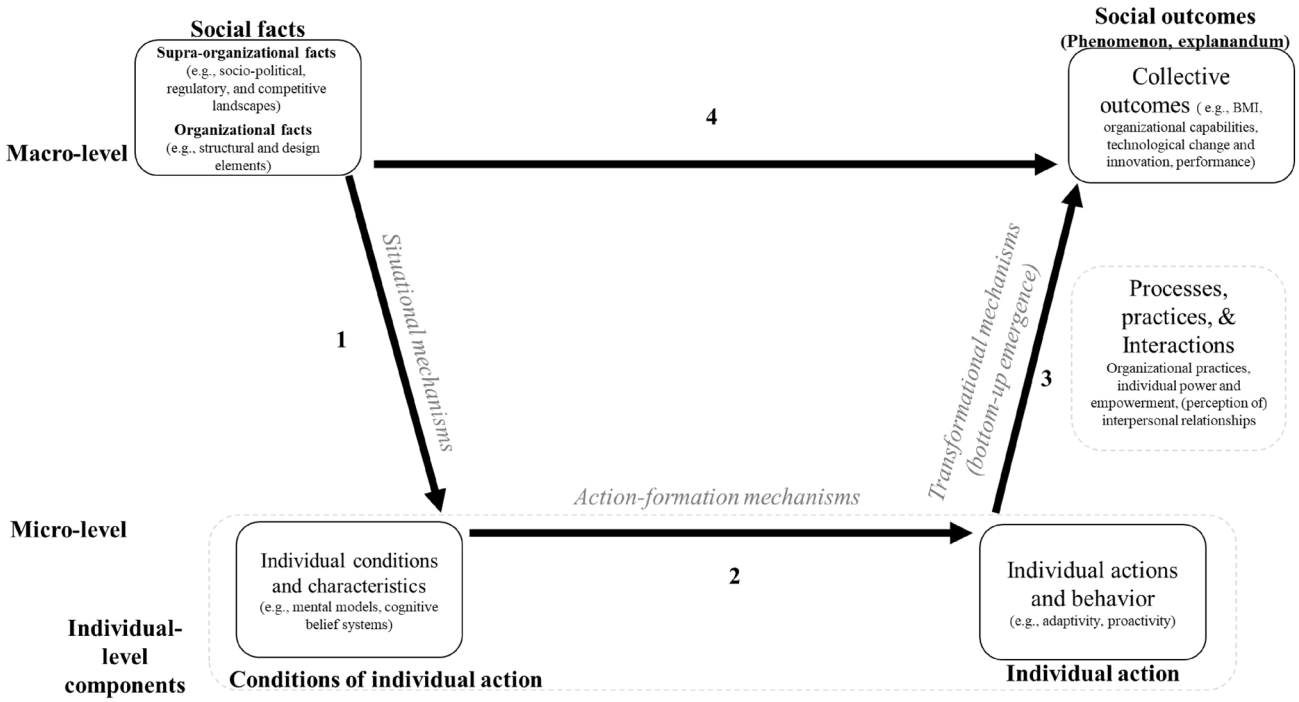

FIGURE 1 Microfoundations: Key components and linking mechanisms.

analytical levels (e.g., macro and micro) and organizational levels, such as organizational design, organizational routines, individual behaviors, and processes of interactions among individuals within the firm, as well as across the boundaries of the firm (Felin & Foss, 2012; Grigoriou & Rothaermel, 2014; Ringvold et al., 2023). From the microfoundational viewpoint, grasping the 'microfoundational challenge' of BMI implies understanding how managers and organizations do what they do (Ringvold et al., 2023). Based on the so-called "Coleman bathtub" (Coleman, 1990: Chpt. 1), three microfoundational components and how they are linked need to be considered (see Figure 1). Note that the bathtub figure may be thought of as a directed acyclic graph (DAG), that is, a graph whose nodes are directionally related without forming a closed loop. Because we are concerned with the BMI process, we think of the bathtub-DAG as time-dimensioned (i.e., the northwestern node may be thought of as the temporally first node).

The ultimate goal is to comprehend how microlevel actions and interactions mediate relationships between macrolevel variables. Thus, it is essential to understand both how supra-organizational (e.g., sociopolitical, regulatory, and competitive landscapes) and organizational attributes (e.g., structure and design) facilitate or impede individual and collective action and interaction and how the behavior and interactions of microlevel actors influence organizational processes and lead to emergent and collective outcomes and impact macrolevel entities (Palmié et al., 2023).

2.2 | Macrolevel supra-organizational and organizational components of BMI

At the macro level, social facts such as supra-organizational and organizational facts may be represented as antecedents of social outcomes such as BMI (Palmié et al., 2023; Ringvold et al., 2023), as shown by Arrow 4. However, a basic microfoundational claim is that Arrow 4 is merely "shorthand" (as there is no causality at the macrolevel only) for more complex microcausal mechanisms (i.e., arrows 1, 2, and 3). Thus, a complete explanation of BMI calls for addressing the underlying causal sequence of macro–micro or situational (Arrow 1), micro–micro or action-formation (Arrow 2), and micro–macro or transformational (Arrow 3) mechanisms (Felin et al., 2015).

2.3 | Microlevel components as conditions of individual behavior and interactions for BMI

At the micro level, individual-level components are affected by situational mechanisms (Arrow 1) and involve microfoundational conditions for individual agency and resulting actions and behavior through action-formation mechanisms (Palmié et al., 2023; Ringvold et al., 2023), as shown by Arrow 2. BMI requires exploration, experimentation, trial and error, and

learning (McGrath, 2010; Sosna et al., 2010) undertaken and shaped by employees and managers. Thus, the attitudes, motivations, abilities, emotions, and cognition of employees and managers are critical aspects of the BMI process (Aspara et al., 2011; Frankenberger & Sauer, 2019). Cognitive capabilities (Helfat & Peteraf, 2015) and processes are crucial for sensemaking, overcoming inertia, and coping with biases to address BMI. They drive decision-making, sensing, perception, attention, learning, problem-solving, and information processing (Martins et al., 2015; Roessler et al., 2019).

2.4 | Processual and interactional components of BMI: Routines, processes, and practices

BMI requires adjusting existing processes, routines, and practices, and reconfiguring resources and structures (Demil & Lecocq, 2010; Doz & Kosonen, 2010; Teece, 2010). Therefore, dynamic capabilities such as sensing and seizing opportunities and integrating and reconfiguring core competencies are essential for BMI (Leih et al., 2015; Teece, 2018). Individuals' behavior impacts organizational doings through transformational mechanisms (Arrow 3), which define how microlevel individual actions and interactions embedded in processes, activities, and practices define macrolevel outcomes, such as BMI (Palmié et al., 2023; Ringvold et al., 2023).

Individuals' behaviors and interactions underpin organizational routines, the cornerstone of capabilities, and, in turn, dynamic capabilities (Cautela et al., 2022; Eggers & Kaplan, 2013; Felin et al., 2012). Dynamic managerial capabilities (Helfat & Peteraf, 2015) support broader capabilities by influencing organizational routines (Wenzel et al., 2020) and empowering managerial vision and the ability to overcome path dependencies (Helfat et al., 2007; Teece et al., 2016). Moreover, transformational mechanisms may also have a crucial impact on transforming organizational culture, notably establishing a creative culture, which is essential during BMI (Bock et al., 2012).

Thus far, we have argued that on conceptual grounds, it is possible to represent the BMI process in terms of the Coleman bathtub. We have done so to represent fundamental mechanisms present in the BMI process in a highly general manner. Although the bathtub framework does involve causal claims (as captured by the arrows connecting the nodes), it is placed on such a high level of generality that it is hardly predictive. However, the framework neatly organizes much of the existing knowledge about BMI and helps us identify where we know the least about the BMI process. Thus, it prepares the groundwork for our empirical analysis in the following.

3 | RESEARCH METHODOLOGY

In the following sections, we undertake an exploratory multiple-case study to gain insight into how microfoundations, encompassing individual characteristics and behaviors, organizational processes and interactions, and structural design components, drive BMI. We aim to highlight different underexplored mechanisms linking microfoundational components at different analytical levels (Contractor et al., 2019; Palmié et al., 2023; Reynolds et al., 2023) to better understand how BMI unfolds.

3.1 | Research strategy and design

Following a qualitative research strategy, we conducted an exploratory multiple-case study within the Finnish power electricity sector, an industry known for its historical conservatism. This type of study allows the exploration and description of a relevant and complex phenomenon, such as BMI, and its driving forces and mechanisms under rare and difficult-to-replicate conditions within specific contexts (Yin, 1994). The method allows for comparative analysis and provides a deeper understanding of the dynamics across different companies (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). While this research focuses on BMI to understand its microfoundations, it also considers the context's role and the sector's inherent characteristics that can support or hinder BMI. During the implementation, this research followed abductive reasoning (Dubois & Gadde, 2002). Based on the underpinnings of the microfoundation movement, the conceptual framework, empirical fieldwork, and case analysis coevolved. Thus, we moved back and forth between the empirical and conceptual worlds (Dubois & Gadde, 2002) to derive and conceptualize our findings.

3.2 | Research context

Historically, the power electricity industry has been highly regulated, and its transformation has been driven by technological changes in electricity generation and transmission (Erlinghagen & Markard, 2012). After years of regulatory changes from the 1990s onward aimed at liberalizing, the progressive introduction of renewable generation technologies and digitization (e.g., self-

generation, electricity storage, micro, smart grids, smart meters, and zero-net-energy buildings) recently emerged as the leading disruptors. Connectivity-enabled smarter grids emerge from the digitization of electricity, integrating hardware, sensors, software, and communication/connectivity (Shomali & Pinkse, 2016). They involve distributed electricity resources and generation, demand aggregation and management, energy efficiency and storage, energy communities, microgrids, prosumers, smart metering, and consumption control (Erlinghagen & Markard, 2012; Rodríguez-Molina et al., 2014).

Regulatory changes challenge the traditional generation–transmission and distribution–retail model (Nillesen & Pollitt, 2016) of selling units of electricity through centralized generation and grids (Bryant et al., 2018). Electricity has become a commodity, and costs have increased, eroding utility company revenues (Richter, 2013). Conservative incumbents face a growing need to engage in BMI to sense and seize business opportunities (Palmié et al., 2021; Rochlin, 2016). In this context, the tremendous volume of information and data generated by recent technological advances based on the Internet of Things (IoT) has fueled BMI (Rahman et al., 2021). Thus, BMI involves complex offerings based on connectivity, sensors, and software-enabled advanced services (Hall & Roelich, 2016). The transition involves a new business logic based on offerings only partially developed upon the commoditized good (i.e., electricity), such as new digitally enabled product-service-software offerings and smart solutions (Kohtamäki et al., 2022) built on remote monitoring and sensors, control systems, and optimizing the operation of smart connected equipment. This technology was previously unknown to most industry stakeholders.

This is a formerly conservative industry with little exposure to change, which has undergone a triple transition from (1) fossil fuels to renewable energies, (2) centralized generation and transmission to a decentralized smart grid based on increasing digitization supported by connectivity (e.g., IoT devices and smart energy metering), and (3) electricity as a commodity to service-led business logic (Rabetino et al., 2017) that involves efficient energy generation and consumption. Consequently, new models have emerged that benefit from the ability to measure how consumers use products and support the transition toward more distributed electricity resources. The emerging options range from service-based solutions (e.g., standard power products and services) to other energy-related services (e.g., life-cycle EV batteries change out, home-related convenience services, or the management of net-metering driven grid sell-back). Depending on utilities' capabilities for information management, service opportunities involve demand and energy management offerings related to energy efficiency and savings. Prominent examples include prosumers, peer-to-peer energy trading, energy-as-a-service, prescription-based energy retailing, demand response programs, and virtual power plans/aggregators (Larrea Basterra & Bilbao Ozamiz, 2020).

3.3 | Data sources, data collection, and case selection

This research draws on multiple data sources, including semistructured interviews, document analysis, interaction with case companies' managers and other key stakeholders in a research project, and a few master's courses on business model development, where one company acts as a live case. However, semistructured interviews are the primary data source for this research because they balance guided questioning and the flexibility to follow unexpected exploration paths (Creswell & Poth, 2018), which allows for a deep understanding of different

TABLE 1 Interviews in the Finnish electricity ecosystem.

Interviewee code	Organization role	Job title	Duration (min)
E1	Energy services	Development Director	101
E2	Fingrid (TSO)	Corporate Advisor	67
E3	Fingrid (TSO)	Specialist	69
E4	Electricity retailer	Head of Unit, Risk Management	57
E5	Electricity retailer	Business Director	70 + 81
E6	Industrial actor (BRP)	VP, Energy Markets	58
E7	Energy regulator	Deputy Director-General	55
E8	Energy industry interest group	Expert	61
E9	Aggregator	Operations Manager	54

Abbreviations: BRP, balance-responsible party; TSO, transmission system operator.

TABLE 2 Interviews in case companies.

Case	Company type	Interviewee code	Job title	Duration (min)
C1	A medium-sized company that operates in the center of Finland	M1	Unit manager, Partnership, and innovations	55
		M2	Development Manager	57
		M3	Product development manager	58
		M4	Unit manager, Sales, and Energy Services	61
C2	A medium-sized company that operates in (rural) Eastern Finland	M5	Risk Manager	52
		M6	Business Director (×2)	126 + 54
		M7	Development Manager	84
		M8	Business Unit Director (×3)	84 + 60 + 59
C3	A medium-sized company that operates in Western Finland	M9	Managing Director	76
		M10	Development Director	66
		M11	Development Engineer	64
		M12	Development Manager (×2)	91 + 63

microfoundational elements that influence BMI. The semistructured interviews were organized in two phases, following Bolton and Hannon (2016).

First, we conducted nine semistructured interviews via Zoom (due to the pandemic) for a broader sectoral-level analysis between August 2020 and July 2021 (see Table 1).

These interviews mainly aimed to gather perspectives on industry megatrends and the related challenges and opportunities for BMI in Finland's electricity sector. We wanted to understand BMI not as an isolated process but as embedded in an ecosystem of diverse stakeholders that may influence BMI possibilities, including utilities and private companies with different industry roles, regulators, and other public or private organizations. We targeted persons with a strong understanding of the industry's megatrends and their implications for companies' operations based on our experience from an ongoing three-year research project concerning BMI in the sector and reviewing industry reports and other documents. Some interviewees were representatives of the organizations that participated in the above project, which included a series of face-to-face and online workshops (during the pandemic). A snowball sampling strategy was also used (Patton, 2015), in which interviewees provided the names of more interviewees who were invited for interviews.

The second phase of our research was conducted in two waves and consisted of a multiple case study involving 16 interviews with 12 key informants in business development roles from three Finnish electricity retailers, two of whom were part of the above project (see Table 2). Denoted as C1, C2, and C3, the case selection followed purposeful sampling (Patton, 2015) and was based on the following criteria that allowed for a comparative analysis to extract nuanced insights. First, we wanted to study incumbent companies with a scale that enables them to engage in BMI actively but not be dominated by international shareholders since it is such that they could import new business models from parent companies abroad. Thus, we concentrated on medium-sized companies with some market share, excluding small, local electricity retailers and large companies with enormous economic power and resources (even with participation in or from foreign markets). Second, we focused on companies committed to BMI and effectively offering innovative business models to the market, regardless of financial and commercial success. Finally, we also accounted for geographical differences, so we chose one case on the west coast, one in the country's center, and one in the east of Finland (thus reflecting the existence of managers and consumers whose preferences may be affected by local traditions and demographics).

We interviewed team leaders (e.g., Directors) and at least two more people (typically middle managers) related to BMI in each company. The semistructured interviews with key informants from the three case companies were conducted in two rounds between August and December 2021 and between February and October 2023. The interview protocols elicited insights into individual cognitive processes, organizational routines, and structural elements influencing BMI. In each case, at least two authors participated in the Zoom interviews, which were video and audio recorded and transcribed verbatim to ensure accuracy in the data analysis.

Other sources were also used to complement the interviews. First, we reviewed companies' annual reports and press releases for indications of new business models

TABLE 3 Data sources.

Data source	Type of data	Topics included in the data source	Use in the analysis
Interviews	*Case study*: 16 Semi-structured interviews with case companies' employees (middle managers and Directors) working directly on business development tasks (Table 2)	*First round* (2020–2021) Industry trends and disruptors and their impact on BMI (in each stage) Opportunity recognition (sources, triggers, actors, tensions and coping mechanisms, actions, processes, and practices) Business model identification and development (actors, tensions, coping mechanisms, actions, processes, routines, and practices) Business model implementation (tensions, coping mechanisms, capability gap, organizational alignment and changes, key learnings) *Second round* (2023) Organizational members' attitudes enable or harm innovation in each BMI stage Individual behaviors and (external/internal) required interactions in each BMI stage Routinization of formal and informal interactions in the organization in each BMI stage Integration of new routinized practices in the existing operations and the role of old structures and processes during the integration in each BMI stage The company's vision, mission, values, and the market's competitive dynamics, regulations, and technological change influence people's attitudes in each BMI stage	As the primary data source, the semi-structured interviews provide an opportunity to gather rich, in-depth information from crucial informants within each case, allowing you to explore individual perspectives, experiences, and insights related to BMI and its microfoundations
	Trends: 9 Semi-structured interviews with stakeholders from the Finnish power electricity ecosystem (Table 1), including policymakers and regulators	Discussions about industry trends (e.g., technological, regulatory, and demand-related) supporting or harming business model innovation in the Finnish power electricity sector. In particular, challenges and opportunities concerning digitalization and the transition toward renewable energy sources, including new business models emerging in the industry	Insights were vital in understanding industry megatrends and their impact on BMI in Finland's electricity sector. By gathering diverse stakeholder perspectives, we identified challenges and BMI opportunities, which inform companies' decision-making
Project workshops	Notes from four workshops involving project consortium members (two co-authors were part of the three-year project)		
Close interactions with C3 personnel	Video records and notes from two C3 managers' presentations and interactions (acting as 'live case') in three editions of a master's course on business model development coordinated by one co-author. The same co-author delivered a four-hour (video-recorded) workshop on business models in the electricity sector to the company's key personnel (15 people enrolled)	Market trends, company's interests concerning key areas for developing new business models, main barriers, and problems. Potential actions to overcome barriers and problems during the business model innovation process	Notes from interactions with managers during courses were used as a tool for triangulation and to support our interpretation of the interview material

TABLE 3 (Continued)

Data source	Type of data	Topics included in the data source	Use in the analysis
Archival data	Press releases, media articles, annual reports, other public documents, and companies' public presentations	Market trends, business development actions, and future areas for business model innovation	Documents were used in preparation for the interviews with each company, and the notes from these documents have also provided insightful information for triangulation and to support our interpretation of the interview material

and strategic choices and changes. In addition, from 2020 to 2022, C3 acted as a "live case" in three master's courses on business model development taught by one of the coauthors, where students analyzed the situation based on the company manager's presentation and developed innovation proposals for the company. The documents provided a historical context, offering a complete understanding of each case's evolving landscape of BMI. While company documents were used in preparation for the interviews, notes from these documents, workshops, and interactions with managers during courses were used as tools for triangulation and to support our interpretation of the interview material (see Table 3).

3.4 | Data analysis

Following iterative steps, the researchers analyzed the data via content and thematic pattern-matching methods (Yin, 1994) and thematic analysis, as Braun and Clarke (2006) described, to systematically identify the collected data's patterns, themes, and relationships. First, researchers carefully and repeatedly read the materials to familiarize themselves with them and highlight important aspects of BMI and the related microfoundations. Next, the researchers followed open coding to identify phrases and meaningful concepts via the data analysis software NVivo 14. Following Gibbs (2018), we started with a list of preset codes from earlier relevant studies concerning microfoundations (Chirumalla, 2021; Inigo et al., 2017; Khan et al., 2020; Mezger, 2014; Mousavi et al., 2019; Ringvold et al., 2023; Santa-Maria et al., 2021; Teece, 2007). Data from alternative sources (e.g., notes from workshops and course interactions with managers and companies' reports) were not coded. Nevertheless, information was added as notes in NVivo 14 to support our interpretation of the interview material.

Later, the initial codes collapsed as the data emerged and were refined in different iterations during the coding process. Codes were subsequently grouped into broader themes, highlighting commonalities and variations across cases. These themes were refined through ongoing discussions and iterative analysis. The primary author conducted the coding process individually to ensure the homogeneity of the criteria, and then another coauthor validated the coding. The whole team engaged in discussing any discrepancies. Comparative analysis was conducted to identify overarching patterns and differences among the cases, allowing a deeper exploration of the elements contributing to BMI. Following Gioia et al. (2013), we created the data structure, condensing the codes into first-order concepts that describe and preserve interviewees' NVivo quotes. The second-order themes appeared based on the authors' thematic analysis and were grouped to form the aggregate dimensions (see Figures A1–A3 in the Annex for further details).

3.5 | Trustworthiness and rigor

Several steps were taken to increase the rigor, trustworthiness, and robustness of our research and guarantee the validity and reliability of the findings (Yin, 1994). The following strategies were jointly implemented to strengthen the research quality and provide a solid foundation for the findings and conclusions. First, the research team ensured methodological transparency and traceability by meticulously recording research procedures (e.g., interview protocols, coding frameworks, and notes/memos), which provided an audit trail for the validation of findings. One coauthor coded all the material for consistency assurance, whereas a second coauthor validated the coding (discrepancies were discussed among team members). Second, four business development team members (including the head) were interviewed at each case company, which allowed for cross-checking of the responses.

Moreover, cross-verification of data from multiple sources through triangulation (Yin, 1994) was employed to increase reliability and mitigate the potential for

singular interpretations or bias. Third, following an iterative feedback process, prolonged engagement enables trustful relationships, facilitating access to sensitive information and allowing participant checking (Lincoln & Guba, 1985) to review and validate the accuracy of our interpretations and findings and ensure that interpretations align with the participants' perspectives. Misinterpretations and discrepancies were addressed and discussed within the team and with the interviewee. Fourth, peer debriefing sessions and peer review/external validation involving multidisciplinary discussions with researchers with business and technical backgrounds not directly engaged in this research (including two conference presentations) helped us assess the consistency of interpretations and insights.

4 | EXAMINING MACRO- AND MICROLEVEL RELATIONSHIPS IN BMI THROUGH THE MICROFOUNDATIONAL LENS

In our three cases, BMI follows a generic three-stage process involving (1) initiation and ideation, including opportunity screening and generation and preliminary ideas with some informal preassessment or prioritization (*Stage 1*); (2) integration and development, involving idea assessment and specification, design, and piloting (*Stage 2*); and (3) implementation and integration, including reconfiguration of organizational resources and optimization and alignment of assets (*Stage 3*). Next, we present the key findings regarding the microfoundations of BMI in each stage of the innovation process, acknowledging them based on different levels from macro to micro: (1) supra- or meta-organizational facts, (2) structural and design components (*Level 3*), (3) processual and interactional components (*Level 2*), and (4) individual-level components (*Level 1*). Following Pratt's suggestions (Pratt, 2008, 2009), we provide the power quotes in the text, whereas the proof quotes are supplementary materials available upon request.

4.1 | Supra-organizational conditions and BMI

Supra-organizational conditions, that is, those elements in the organization's institutional/competitive environment that influence individual and organizational behaviors, emerged in the data as vital for triggering and driving BMI. Notably, new disruptive technology (renewables and digitalization), regulation, and market dynamics have heavily changed the nature of competition, particularly in retail electricity. Thus, companies have moved from a stable environment that only called for fine-tuning business strategies and where digital technology aided efficiency and security to one in which interconnected and often contradictory elements now appear concerning companies' external triggers and challenges.

While the technology push (e.g., integration of renewables and digitalization) triggers the need to search for new opportunities in *Stage 1*, companies must simultaneously address the uncertainty regarding what technology will dominate and become the industry standard. Thus, technological uncertainty makes evaluating potential opportunities challenging in *Stage 1* and may delay the business model specification and design efforts in *Stage 2*. While an ambiguous emerging regulation linked to renewables drives *Stage 1*, regulation ambiguity/delay (or the lack of regulation) makes estimating potential profitability difficult and hinders the creation of new business models in *Stage 2*. Clarifying potential forthcoming changes in legislation and their impact on companies' operations is critical when moving toward *Stage 3* since it influences the market's operation.

> "... the next regulatory model will be implemented in 2024. So then, we aim at what we get to the regulatory model, the idea that this OPEX is also considered the same way as CAPEX today. So, companies can, for example, use flexibility or other services to have a choice, not only build more cables, which is the case today." (E3)

In addition, competitive pressures have increased from the industry's inside (competitors and customer empowerment) and outside (newcomers). These competitive pressures drive technology and BMI while facing moves from competitors and new entrants.

> "Competition could be anything; it does not need to be anything of what we just discussed because that is now, but yes, from now on, it could be Google. Then, the question is, do we compete with Google or find a spot where we cooperate with Google and complement Google in some way." (M12)

Competitive pressures have also shaped the industry's evolution, pushing companies to look for new opportunities in *Stage 1*, a trend reinforced by commoditization (where it is increasingly difficult to differentiate offerings). Thus, competitive pressure has pushed companies to design digitally enabled offerings comprising a range of new services.

> "... all consumption data from every single electricity meter and household will be transferred to a huge data hub, and then it should be open data. So, if you are Company 1 [*name removed*] and want to get some clients of Company 2 [*name removed*], you can take the data from the data hub with the customers' permission and look at their consumption profile. Okay, we can give them the best option. It is just the streamline and opens the market more, making competitive bids easier." (M10)

The process is often characterized by isomorphism, in which competitors tend to specify similar solutions in *Stage 2*.

> "...the development ideas and products we have can also be found among competition. Of course, we do our tweaks and optimization variants of them too, you know, maximize the benefits and so on or functionalities, but, so far, what has been handled by my team has mainly been new things for the company, but not necessarily new in the industry." (M12)

Finally, customer needs and interests act as another key BMI trigger. In a context described by increasing customer empowerment, there is an (a priori latent) demand-pull for new technology-enabled services requiring new business models. Thus, companies must explore and invest to avoid being left behind, acknowledging that technology will eventually become dominant due to the push of regulation. Hence, customer needs are a crucial driver, and when looking for opportunities in *Stage 1*, the attention of developers may be directed based on concrete customer demands. However, tensions may emerge in *Stage 2* since consumers may remain uninterested in many segments, notably households, due to insufficient incentives and motivation to buy those services since the benefits are unclear or the costs offset the perceived advantages.

> "So, raising the people's interest is the first problem; even if it is for free, it does not cost you anything to raise the people's interest and to make people understand what this is about and how important it is in the big picture. It is hard to get people to understand, let alone if they would have to pay 1,000 euros plus the monthly fee." (E5)

4.2 | Organizational influence on BMI: Structural and design components

Organizational structural and design components (notably strategy and structure) seem to act as both antecedents (enabling or disabling) and outcomes of BMI (when BMI is seen as an outcome, that is, a new BM configuration embedding design aspects). Our evidence reveals the influence in all three stages, although the power and scope of such influence vary in each case (see Table A1 in the Annex). The impact of organizational design's influence on idea unfolding and embodiment appears to be twofold in *Stage 1*. First, organizational strategy emerges as BMI's main internal driver following the trends in the sector (with customer demand being one strong situational mechanism, as discussed above).

> "These are strategic choices. We have digitization, security of supply, interest groups, intelligent network, and partner ecosystem. This is all part of the strategy work we did, and we do that almost every year nowadays. These main topics did not change and did not change this year, for example. However, with these subtopics, because the focus changed differently, for example, this new generation of smart meters and how to benefit from those was before just a rollout project. That was our focus." (M2)

In particular, strategy as a steering and scoping tool becomes a directive force, a powerful situational mechanism that spills its impact downward, affecting people's behaviors at *Level 1* and, in turn, organizational processes at *Level 2*. Thus, strategy drives attention and influences the search direction and scope.

> "... whenever we come up with a new idea, then we compare it to our strategy. What does our strategy say? Does it fit into the strategy? If yes, and if we should do it, and if it is crystal clear that this is good, then we start. If not, then we start with a feasibility study. What is the market? Does it make any sense?" (M10)

Second, organizational structure design follows company strategy and affects the degree of organizational flexibility/inertia, influencing BMI. Flatter structures and smaller teams increase flexibility by supporting lateral information flows and the combination of knowledge and innovation. However, the inherited corporate culture can create inertia if it prevents the change in traditional

structures initially designed for a once-conservative industry where BMI was historically uncommon. Inertia may particularly affect people who have been in the company (or the industry) for a long time.

> "... the biggest tensions came from the mother company. You know, a lot of our grand ideas were more or less shot down, you know, we had the balloon flying, and then bang was shut down from the head office. If I say that is cruel, yeah, but that is our culture." (M6)

Under these circumstances, the TMT, notably the CEO, must guide emerging BMI plans (if they can overcome inertia forces or if they were recruited from other industries). They are vital in promoting a collaborative atmosphere, encouraging and supporting employees' exploration and experiential learning, and providing opportunities to try ideas that a priori seem less promising or relevant (e.g., budgeting). Changing organizational structures may require new employees to fill previously non-existent roles. While the new organizational structures will influence the direction and scope of the search, new recruits may act as both an action formation mechanism and a transformational mechanism (at *Levels 1* and *2*), especially when new innovative people come into developmental roles with fresh ideas and practices.

The role of strategy as a guideline and situational mechanism remains relevant to fostering an innovation culture and achieving cultural readiness in *Stage 2*, whereas strategic alignment becomes critical and calls for three core actions. First, defining strategies and actions to fit industry trends is necessary, and a continuous strategy work process is needed. In the considered company cases, strategy results from a strategic process with increasingly shorter cycles and more periodical recaps than earlier and calls for a systemic approach (e.g., following roadmaps). As stated above, new business models develop from strategy choices, which must be re-evaluated periodically to ensure they fit trends and adopt corrective measures before they are too late. The case companies undertake routine strategic work every 2 or 3 years to establish thematic priorities.

> "...in our company, we renew our strategy in three-year cycles. We overlook the whole business and see them try to see the trends, possibilities, and threats, which we can now see as the basis of our strategy. We look at the whole business every three years, which is how it works." (M5)

However, the industry's dynamics require that key stakeholders hold several checkpoints and recap a year, which will shape processual and interactional components at *Level 2* since this task is typically accomplished through workshops or periodic meetings. These gatherings are commonly utilized for sensemaking, where ideas are selected and prioritized in *Stage 1* and then shaped and further developed in *Stage 2*.

Second, developing a joint commitment to a shared vision and agenda starts with strategic choices, which require clear and formal communication and participatory processes. Guiding artifacts, such as roadmaps, facilitate this process. Third, organizational culture is crucial in promoting an innovative mindset and enabling individuals to engage in trial-and-error and risk-taking. Indeed, evidence highlights the interaction between organizational culture and individual mindsets and points to culture as a mechanism for making a difference at Level 2.

> "... but this kind of innovation culture, if you wanted to have it the fullest, you have this fail fast, but fail forward-thinking, so maybe in a way, we could have like one or two things that are really outside the box and go and see what is there." (M1)

Thus, organizational culture and its changes emerge as other situational mechanisms influencing individual mindsets (at Level 1), which, in turn, in our case companies, typically act as action creation and transformational mechanisms leading to new practices that ultimately redefine organizational processes at Level 2. Accordingly, fostering an innovation mindset in these traditional companies working in a conservative industry is vital for seizing new business models. In this context, providing opportunities for experimentation is essential. The TMT, notably the CEO, serves as a mediator and arbiter for emerging conflicts regarding ideas for BMI, observing strategic alignment.

Finally, *Stage 3* pertains to the organizational redesign required to integrate the emerging business models and encompasses three key components. First, it involves restructuring the organization and interlinking its functions. Thus, action concerning ensuring the interaction among organizational functions through flexible linking structures and appointing responsible people for new functions and tasks (e.g., creating new structures and processes and establishing channels for cross-unit interactions) is needed. It may also involve restructuring and "separate vs. integrate" decisions to achieve cultural readiness.

> "Some IT companies I know have separated the new innovative businesses from the existing ones by doing it in a separate company. That is the one way to do it so you can have a different company culture. I also see a risk in acquiring a smaller company, a very innovative company, to a very conservative company like you, which will kill their innovation in weeks." (M9)

Second, reconfiguring and leveraging resources involves adapting or changing existing systems, adopting new technologies, and retraining personnel. Staff recruitment may constitute another mechanism (both situational and transformational) that contributes to changing people's mindsets at the individual level and achieving cultural readiness. Resource reconfiguration also means acquiring boundary-spanning resources through integrating complementary competencies and partnership management (e.g., establishing and managing alliances and partnerships).

> "We might need to purchase a new company with new resources, or some person must be retrained to cope with the reality." (M12)

> "They are all related so that you would need for the new business; you would need the resources for the personal resources and the money and everything." (M9)

Third, the transformation needs the TMT's commitment and leadership to achieve change by enacting the vision, setting priorities, and accepting contradictions. The TMT may also become a source of inertia if it has been in the industry for a long time. Indeed, our cases show that leadership implies evangelizing tactics to spread beliefs and convert nonbelievers, collaborating tactics, and even involving collegial authority to remove obstacles. Leaders, especially CEOs, are crucial as change evangelists since the literature has shown that strategy-making is emotional and that cognitively sophisticated solutions are essential to balance efficiency and flexibility in dynamic environments. This implies the management team's ability to make quick and brave choices, avoiding being caught up in politics.

> "...we must accept that this situation is changing, and then we as leaders and managers must take care that the energy of the people is looking forward to the next steps and how we can utilize this possibility. How can we avoid those threats or those negative issues? How can we use this possibility? How can we make some new revenue or something from this situation?" (M4)

4.3 | Processual and interactional components of BMI

Distinctive elements can be identified for each stage by examining BMI processes, routines, practices, and interactions. The interviews revealed that while the organizational strategy provides guidance, opportunity sensing and ideation initially involve different rehearsing ideation practices, many of which become transformational mechanisms. These practices are essential for opportunity screening, fostering interaction among corporate members, and initial attempts to aggregate and formalize praxis. First, concerning opportunity screening, ideation interactions and processes are informal at the beginning of *Stage 1*. However, as progress is made toward *Stage 2*, the level of formalization seems to increase. Key processes entail market intelligence-related organizational activities such as market monitoring and technology scanning, involving the interaction and follow-up of customer needs and benchmarking competitors and trends from the sector and adjacent industries.

> "We have looked into the different companies, competition, and even different business areas, and that is, of course, where the strategy is to provide services not just for energy, such as electricity or district heating, but also for some related services. Of course, that also comes from other industries." (M9)

Second, opportunity recognition and initial ideation may occur at all organizational levels. Thus, companies must implement idea-creation processes across the organization to foster open interactions, which must be concrete but remain informal and open and be supported with specific instruments (e.g., customer interaction, discussion forums, idea assessment, and tracking). Companies generally utilize various idea-gathering practices to interact with and discuss potentially innovative ideas, often through workshops or messenger apps (e.g., WhatsApp) and an intranet (e.g., Teams) to follow up and keep them alive. Third, actual work still occurs in projects that demand formal higher-level processes guiding the steady systematization of informal practices. In our cases, they take the form of a project management model (milestone gates, flowchart, or similar) in its initial stages for aggregation and praxis formalization, which serves as a basis for decision-making concerning idea

preassessment and prioritization (with critical decisions made at the end of each milestone evaluation).

> "So, there is a path to how the ideas are passed forward, but you know it is not a machine where you put one at one end, you put ideas in, and at the other, you get innovations. You know it is more, I would say, rather a hippie style." (M6)

> "... but systematic in the big picture might be missing like we do not have an annual structure to sit down with tools and think about what is happening in the world in different businesses." (M8)

Next, *Stage 2* systematizes the definition and business model development by routinizing value creation based on specific processes and interactions. First, the interviewees agreed on prioritizing ideas that must be treated as projects for detailed planning, considering the big picture, following clear implementation rules, and fully formalizing the earlier milestone gate model. This stage includes defining the value proposition for customers and the organization (involving multiple stakeholders) and setting the project scope. These tasks imply understanding developmental requirements, structuring decision-making, and defining further assessment rules and KPIs at the core of the BMI process.

> "...once we have found an idea which we want to develop and look at, we have a gate milestone model which we then use for the idea's management or portfolio project management. So obviously, Gates Zero concludes that whatever we want to develop cannot be handled as a task. It must follow the project gate model, and then we have, you know, G1, G2, G3, G4, and then the post-project evaluation gate. We follow these different steps and prepare project charter plan schedules. Make the proper gate decisions to go ahead with the next one. So, I would say that is the governing model; once we have identified an idea, we want to work with." (M12)

As innovation will not be free of organizational tensions in rapidly changing contexts, encouraging, engaging in, and managing conflict appear essential when finding innovative business models that fit the strategy. Indeed, allowing some degree of tension seems to be ideal for moving the process forward.

> "... it is a kind of cultural conflict – and you know sometimes it creates, it really does create frustration, but on the other hand,it also kind of strengthens it blues us together." (M6)

Our findings suggest that managers must enable a psychologically safe environment for mature and open discussions, team up with people with different degrees of risk aversion, and use alternative problem-solving techniques (e.g., learning cafes).

Second, the stage contains critical practices and interactions for structuring business model generation based on adopting a customer-centric approach. It also calls for cross-functional exchanges and interactions with external stakeholders (e.g., consultants and IT providers) and design thinking tools for collective sensemaking, brainstorming, and development (e.g., PowerPoint, Miro, or business model canvas).

> "Of course, we have used the business model canvas and had some consultants helping us. So yeah, I think it is about the organization's maturity, and when it increases, we can use most of those tools ourselves. There is no need for another outside consultant." (M4)

Third, activities and interactions for learning and scaling opportunities by prototyping and piloting are keys.

> "First, we make prototypes and look for what works. Based on that, we create MVP for our service. So, it is about collecting user information, structuring it, making a prototype, and testing it. This is our customer-based innovation model." (M3)

This step can include joint R&D projects, coopetition, and partnership with tech companies. The three cases involve testing ideas with customers to define the business model. Thus, developing innovative technologies with high costs and uncertain financial outcomes pushes midsized companies to seek technology partners and cooperate with competitors in technology development (coopetition) as a coping mechanism to balance risk and reward. Consequently, ecosystem-related interactions are essential for innovation.

Notably, regulations and norms (as supra-organizational determinants) heavily influence market operations and, in turn, impact the potential for creating novel business models at this stage.

Finally, *Stage 3* involves creating readiness for agile and consistent business model integration and implies

different critical elements. First, there is a need to balance stability and change by implementing agile working and ambidextrous management and looking for continuous improvement. Second, two key actions to motivate people and push things forward are empowering responsible people based on team leadership and establishing clear roles and responsibilities. Third, as the interviewees highlighted, promoting organizational entrenchment based on building team spirit and an open and engaging atmosphere to redirect people's energy forward is critical. The alignment of corporate culture is crucial to moving these innovation processes forward because of inertia and change resistance. The interviewees emphasized the importance of internal cooperation, which was encouraged by an open and knowledge-sharing culture. Informants also pointed toward internal communication, openness, and information flow as practices to create team spirit, generate employee enthusiasm and satisfaction, and cope with resistance.

> "... it is about internal communication, and so the situation picture. In the company, we have one situation picture, share it, and talk about it. First, we must understand what is happening and accept that this situation is changing. Then we, as leaders and managers, must take care that the people's energy is looking forward to the next steps and how we can utilize this possibility." (M4)

4.4 | Individual-level components: Agency and behavior in BMI

Individual agency and behaviors are central in all BMI stages and drive action-formation mechanisms, defining how things are done at *Level 2*. In *Stage 1*, a proactive approach to opportunity recognition is critical for idea sensing and involves different elements. First, an entrepreneurial mindset is essential for a proactive approach involving attitudes and behaviors such as long-term vision, risk acceptance, and out-of-the-box thinking. Second, a positive attitude is critical in neutralizing inertia from pessimistic thinking and promoting openness and a collaborative atmosphere for new opportunity identification. It includes behaviors such as enthusiasm and seeing threats as opportunities. Third, experience-based intuition is a means of idea perception. While idea suggestions come from many sources, employees play a pivotal role in perceiving which of them hold potential as genuine opportunities, highlighting the need to encourage and stimulate employees' exploration and experiential learning and to try ideas that a priori seem less promising or relevant. Early involvement and assessment of emerging adjacent technologies and markets are critical themes. However, it seems imperative to take the initiative, explore, and learn from emerging things with unwritten rules, and even shape their development, carefully considering threats and opportunities for BMI when possible. Our evidence highlights the importance of intuition based on prior experience in perceiving opportunities.

> "We lean more towards intuition. I cannot say that we have extensively trained our team in this regard. Let's say we go by gut feeling. We start with a superficial internet search to see if there is something deeper to investigate. If that looks interesting, then the intensity increases, and we reach out to someone who can help us go through it more thoroughly. But it is not formalized in any way." (M8)

Consequently, different cognition-based action-formation mechanisms are fundamental. Experience seems critical at all stages, particularly at the first two stages. Thus, new employees with diverse experiences enlighten opportunity recognition, acting as a means of mindset changes and sources of new ideas. Instead, three crucial situational mechanisms determine the focus of attention during the idea-sensing process: industry trends, company strategy, and customers' needs and desires. In this context, while employees act as initiators, middle managers serve as buffers, communicating and advancing ideas while looking for buy-in from the TMT.

In *Stage 2*, successfully developing new business models depends on finding individuals with an innovative personal approach to business model crafting and development. This approach includes different individual characteristics. First, a creative mindset includes skills such as out-of-the-box thinking, innovation-minded individuals, and market orientation. Second, a willingness to take risks involves stamina and stubbornness and enables individuals to challenge the status quo, defy organizational norms, and carry out tasks without authorization when needed (sometimes jeopardizing old businesses). Third, such an approach is grounded in cognitive processes centered on experiential self-reflection underpinned by learning, involving portfolio management and analogical thinking. Some simple organizational rules grounded in experience are also noted (e.g., minimum expected returns for whatever investment). Analogical reasoning is crucial. Netflix and Spotify were names mentioned repeatedly. However, inspiration comes from the banking, telecommunications, and security industries.

Middle managers act as networkers, connecting external and internal stakeholders, promoting interactions, and intervening in challenging situations at the team level.

> "In some phases of the development, sometimes we fear that now we have some challenges, and we cannot solve them. Well, let's take a few steps back and rethink it. That is what I have learned." (M11)

In *Stage 3*, a growth-oriented approach (e.g., step-by-step with strategic thinking) and a business mindset (e.g., accepting challenges and engaging in responsible development and problem solving) are essential for implementing and integrating emerging business models. As change agents, middle managers are crucial in promoting organizational growth.

> "...we have to be in a way more realistic and recognize the causalities and the impacts between different development lines." (M1)

> "I think my way is that let's just start doing and go step by step and by conscious evolution. Maybe not revolution, but evolution and every day." (M4)

> "So, looking at the big picture, not just suboptimizing." (M10)

Table A1 in the Annex summarizes the key findings (including a detailed description of the key mechanisms). Complementarily, Table A2 shows each company's cases prevalence of the framework's aspects (e.g., second-order themes and aggregate dimensions).

5 | DISCUSSION

5.1 | The BMI process

Scholars have called for a better understanding of the intricacies of BMI (Foss & Saebi, 2017, 2018; Spanjol et al., 2024). In particular, innovation management scholars have recently highlighted the need to scrutinize the BMI process, examining its microfoundational aspects (Spanjol et al., 2024). In response to this call, we conducted a multiple case study using the Finnish power electricity sector as a research context. On this basis, we explore and discuss key drivers in each BMI stage (e.g., technology, customer insights, and legislation) and the role of organizational mindsets and culture, core practices, processes, and middle and top managers. In doing so, we examine the interaction mechanisms that drive the interplay between microfoundational elements at macro and micro levels along the three BMI stages (opportunity recognition/ideation, BM specification and design, and integration/implementation).

In our case companies, the innovation process typically resulted in business model adaptation and, only sometimes, in a fully fledged BMI (e.g., business models that are new for the industry). Local search leads to narrow market-specific innovations (e.g., selling solar panels and apps for consumption monitoring). However, successful and more radical BMI require searching for and experimenting with broadening domain-expanding business logics involving complex technologies and business models with uncertain performance outcomes (Pisano, 2017). Our evidence suggests that companies seeking more radical BMI must move beyond local searches to respond to a changing environment. Recognizing the critical importance of the microfoundations of BMI may help companies better address the challenges of the BMI process. As we discuss next, our research identifies key microfoundational components and processes at different levels, including processes and practices that activate internal and external stakeholders and organizational design elements.

5.2 | The microfoundations of BMI

This research investigates how microfoundations for BMI, encompassing organizational design and processes as well as individual characteristics and behaviors, interact to drive BMI in industry incumbents. In doing so, we explore the primary mechanisms steering the interplay of granular, often overlooked, microfoundational elements determining BMI. Inspired by microfoundational insights into analytical levels (Felin et al., 2015), the discussion is organized into three levels and, following the BMI process literature (Gassmann et al., 2020; Morris et al., 2005), three analytical stages. Next, we discuss the generalities and specificities of the key findings presented in Figure 2 from top to bottom, emphasizing each stage's microfoundational components and the mechanisms defining their interplay between the macro and micro levels.

First, supra-organizational conditions drive BMI at the macro level, particularly technology, regulation, and competition trends. Our findings resemble those of previous studies. For instance, Saebi et al. (2017) conclude that external actors, new technologies, and regulatory and market forces are among the main BMI drivers. Thus, the environment is often a BMI driver (Spanjol et al., 2024)

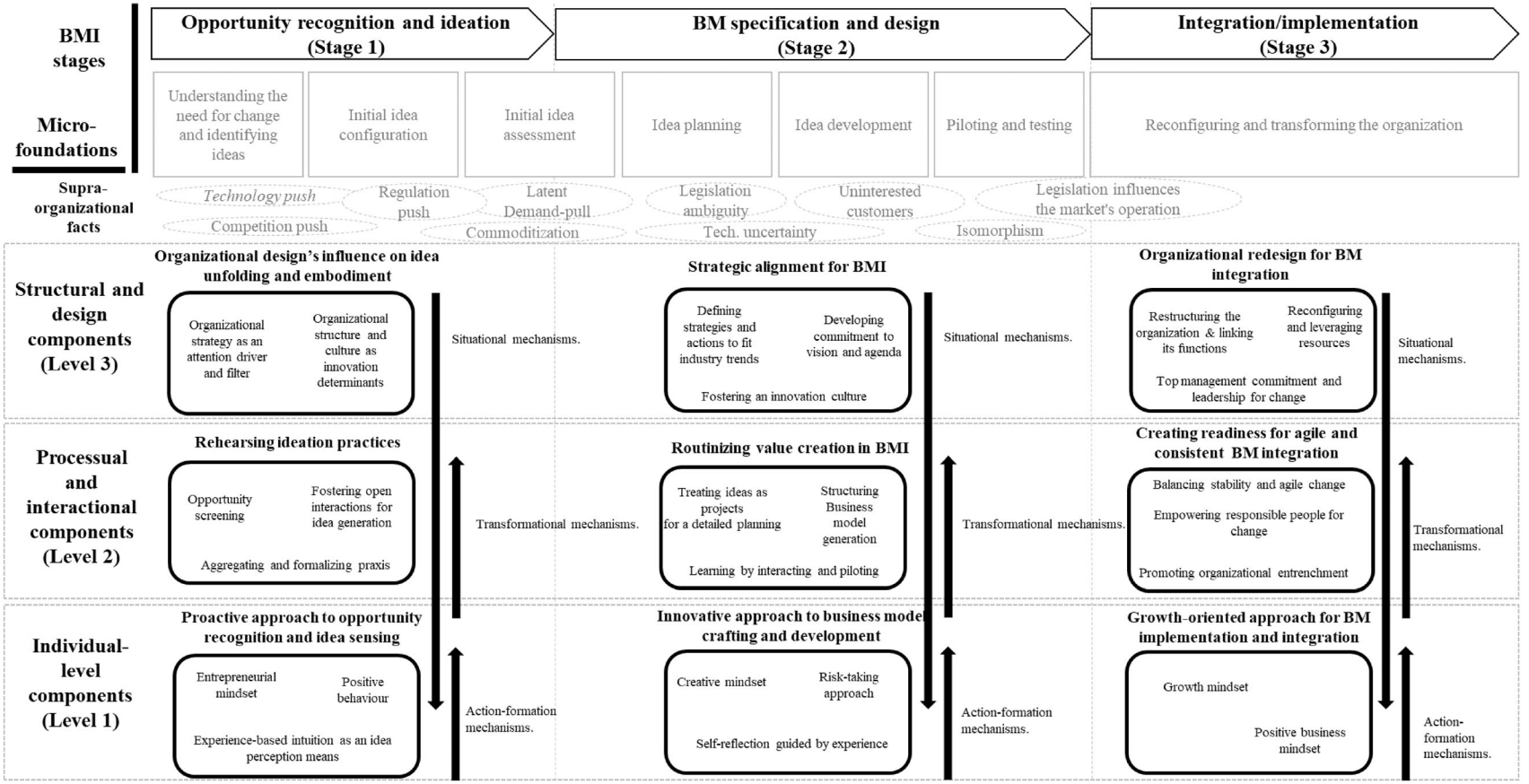

FIGURE 2 Microfoundations of BMI.

or antecedent (Witschel et al., 2022). Nevertheless, there are nuances and particularities. For instance, technology, regulation, and competition are vital determinants during *Stages 1* and *2*, whereas legislation becomes crucial for market operations, steering transformative efforts in *Stage 3*. Moreover, the role of customers as BMI drivers also has a paradoxical impact across stages. While potential latent demand seems to push BMI during *Stage 1*, realizing it into actual sales is challenging because difficulties in building business cases eventually lead to uninterested customers during the piloting in *Stage 2*.

As earlier (conceptual or review) studies concluded, organizational strategy emerges as another situational mechanism (Andreini et al., 2022; Teece, 2007), and our findings add novel and empirical specificity to this insight. Existing research identifies a company's vision as a trigger and enabler of opportunity identification (Ringvold et al., 2023; Sniukas, 2020). Our findings suggest that the company's strategy is a strong situational mechanism in *Stage 1* (Teece, 2007). However, it remains such a mechanism in *Stage 2* since business models develop from strategy choices (Casadesus-Masanell & Ricart, 2010), and business model development requires strategizing and strategic alignment from all organizational members.

This research also confirms that organizational design at the macro level (hard and soft aspects, e.g., structure, culture, and leadership) sets conditions for individual behavior at the micro level. Indeed, recent studies suggest that organizational design elements act as situational mechanisms (Foss & Saebi, 2015; Leih et al., 2015), becoming antecedents (enabling or harming), moderators (driving relationships influencing new BM specifications), or subjects to change during BMI (Foss & Saebi, 2015).

While flatter organizational structures foster innovative behaviors in *Stages 1* and *2*, possibly at the cost of speed and execution, organization design changes define agility and speed of change in *Stage 3*. In this context, efforts are needed to achieve cultural readiness to support innovative behaviors and creative problem solving in *Stages 1* and *2*, respectively, and to break resistance to change in *Stage 3* (e.g., aligning the whole organization to implement the transformation). Our conclusions align with earlier studies suggesting that organizational culture impacts strategic flexibility (Bock et al., 2012). As mechanisms, our findings point to setting incentives to promote desirable individual behaviors (as illustrated and discussed below) and guaranteeing behavioral change in each stage, which is vital to measuring BMI success.

The role of the TMT/CEO and middle management, including leadership, communication, and control methods, is critical in doing so in all BMI stages but presents some particularities and nuances. For example, while TMT leadership support was essential for promoting a creative culture in *Stage 1*, the reliance on traditional organizational structures and routines created inertia (e.g., silos and poor communication) and hindered opportunity recognition due to path dependency. Primarily, the CEO acts as a guide, pivotal in setting the direction, breaking inertia, promoting entrepreneurial behavior in an open environment, and balancing trade-offs through clear corporate objectives (Ringvold et al., 2023). Instead, middle managers act as buffers, advancing ideas and seeking the TMT's buy-in. This research suggests that when stability and risk aversion were historically prioritized, a balanced approach that combines strategic oversight, top-down leadership, and bottom-up innovation is essential to foster BMI in Stage 2. Such an approach calls for setting the proper mechanisms to avoid top-down directives clashing with bottom-up innovation efforts. Thus, TMT members, notably the CEO, act as mediators and arbiters of potential organizational conflicts, whereas middle managers are networkers connecting internal and external stakeholders, promoting interactions, and mediating team disagreements. In *Stage 3*, as previous research concluded (Ringvold et al., 2023), our findings suggest that this transformation requires top-management commitment and leadership for change, which involves breaking with inertial forces rooted in conservative firms from a traditional sector. Thus, TMTs/CEOs act as evangelists, and communication is critical and becomes a key mechanism affecting people's mindsets at the micro level. In this context, middle managers are crucial as change agents, promoting cross-unit interactions and fostering business growth.

Second, given the conditions for individual behavior, action formation mechanisms translate individual behavior and actions into collective interactions at the micro level, where particular attitudes and mindsets are needed at each stage. In *Stage 1*, employees are initiators, requiring particular mindsets for guiding behaviors and interactions (Ringvold et al., 2023). Nevertheless, while individual actors are pivotal in initiating and driving BMI by recognizing and developing novel ideas, they must be ready to challenge existing practices and norms. Some employees must act as innovation champions, take initiative, and interact with colleagues to promote new ideas. Often, the interactions begin informally, and many of these practices are legitimized over time. Indeed, our data suggest that opportunity recognition and ideation draw primarily on spontaneous initiatives steered by more entrepreneurial and initiative-taking members driven by intuition-based experience. Thus, new recruits may help, act as mindset setters, and bring potential innovation champions.

Additionally, during the developmental stage, people's cognition and behaviors (e.g., creative mindset, risk-taking, and self-reflection) are crucial to business model crafting and development and become action-formation mechanisms that impact individual interactions (Helfat & Peteraf, 2015; Lenka et al., 2018). Instead, organizational transformation demands individuals with growth-oriented and business-oriented mindsets for new business model integration and implementation, as these cognitive characteristics act as action-formation mechanisms and impact interactions, managerial practices, and processes (Ott & Eisenhardt, 2020). Indeed, cultivating a growth and business-minded attitude with a positive outlook seems critical in creating organizational readiness for an agile and consistent integration process, which also needs empowering, responsible, and accountable individuals. In this context, middle managers are crucial as change agents, promoting cross-unit interactions and fostering business growth.

Third, BMI as a collective organizational outcome emerges from aggregating individual actions through transformational mechanisms impacting organizational processes and practices and determining BMI as the cumulative effect during the three BMI stages at the level involving processual and interactional components. As shown in Figure 2, these components in our company cases include, in each BMI stage, individual characteristics (e.g., affective, cognitive, and behavioral skills and expertise), leadership styles that lead to different roles for middle and top managers, and organizational processes underpinning sensing, seizing, and reconfiguring capabilities. For example, processes concerning sensing and sensemaking, learning and knowledge sharing, strategizing, value creation, coordination, and integration matter greatly to BMI, as suggested by prior studies (Andreini et al., 2022; Teece, 2007) and as we clarify and exemplify below. Once routinized, these microfoundational aspects result in dynamic capabilities over time (Helfat & Peteraf, 2015; Teece, 2007; Zollo & Winter, 2002). Indeed, the conventional dynamic capability microfoundations of sensing, seizing, and reconfiguring (Teece, 2010, 2018) closely resemble the three BMI stages we identify. Our findings also support Smith et al.'s (2010) conclusion that routines must be in place to address paradoxical demands such as exploration and exploitation, learning and performance, and stability and agility.

However, particularities and nuances exist across BMI stages. For instance, the processual and interactional components include processes for rehearsing ideation practices for opportunity screening at *Stage 1*. Our findings show that interactions often begin informally (being almost praxis), and many of these practices are legitimized over time. Nevertheless, early efforts must seek to aggregate, systematize, and formalize practices (e.g., creating periodical forums) since sensing may occur at all organizational levels (Teece & Linden, 2017). Success depends on enabling cross-organizational, open, and transparent interactions in this context. In *Stage 2*, practices become routinized as ideas progress from assessment to planning and become formal projects. As concluded in earlier studies, value-creation processes are critical (Andreini et al., 2022) and call for steering methodologies, such as project management methods (Sniukas, 2020). Our evidence suggests that process systematization in our cases was typically performed through aggregation based on higher-level formal processes, often following standard project management step-by-step models that treat BMI as product or service development.

Moreover, our findings also support earlier studies' conclusions, suggesting that collective sensemaking and organizational learning are among the five crucial capabilities of BMI (Loon et al., 2020; Ott & Eisenhardt, 2020). In our cases, structuring business model development involves particular artifacts (e.g., using the business model canvas) to aid in brainstorming and sensemaking (Bapuji et al., 2012; Laasch, 2019). Moreover, learning and knowledge shaping from iteration with different stakeholders through piloting and prototyping are also critical processes, as suggested by earlier studies (Andreini et al., 2022; Geissdoerfer et al., 2022; Ringvold et al., 2023). These processes include coopetition and cocreation among different internal and external stakeholders.

Finally, processes for creating readiness for agile and consistent business model integration are at the core of *Stage 3*, which requires agile and ambidextrous change management practices and control mechanisms (e.g., feedback loops and monitoring) to ensure resource synergies, capability leveraging, integration, and smooth operational alignment and adoption of new business models. Additionally, processes for adapting, changing, and integrating systems and reconfiguring resources are needed and must be internally or externally sourced. Indeed, this transformation calls for establishing roles and empowering responsible and accountable individuals. Adequate information channels to secure information flows are crucial to ensuring successful transformation.

6 | IMPLICATIONS

Research into the microfoundations of BMI remains limited and scattered (Palmié et al., 2023; Ringvold et al., 2023; Spanjol et al., 2024). Additionally, most such research rests on the dynamic capabilities framework of Teece (2007), but other relevant microfoundations of BMI are not captured by this framework. In this

research, we examined BMI processes in several established companies in a traditional industry to gain insight into the microfoundations of BMI, which play out across different levels within an organization and across different stages. While not contradicting existing research, our findings add new insights and nuances to understanding BMI.

6.1 | Implications for research

Our research contributes primarily to BMI research (Foss & Saebi, 2017, 2018) and to two related research streams (Kurtmollaiev, 2020): the microfoundation movement in strategy and organization theory (Abell et al., 2008; Felin et al., 2012; Felin et al., 2015) and the microfoundations of dynamic capabilities (Schilke et al., 2018; Teece, 2007).

First, our research provides evidence on microfoundations at different levels, complementing existing research on the microfoundations of BMI and expanding the still limited empirical evidence (Palmié et al., 2023). Most existing research has focused primarily on microfoundations with dynamic capabilities. There is less evidence regarding the framework proposed by the microfoundations movement in strategy and organization theory. Research remains uncommon beyond conceptual works or reviews (Schilke et al., 2018), with only a few empirical exceptions (Mancuso et al., 2024; Ringvold et al., 2023; Sniukas, 2020; Zahoor et al., 2024). To date, Sniukas (2020) and, in particular, Ringvold et al. (2023) represent the only sustained attempts to understand the microfoundations of BMI following the microfoundation movement in strategy and organization theory (Felin et al., 2012; Felin et al., 2015). Our research complements earlier studies by approaching the phenomenon in a different context, that is, traditional companies in a conservative industry. This research extends earlier studies, notably offering detailed evidence concerning the interplay between microfoundational components at various levels. In doing so, it outlines the interactions between microfoundations and often discusses unexplored action-forming (e.g., mindset and experience), transformational bottom-up emergence (e.g., interactions and practices), and situational mechanisms (e.g., strategy and customer requirements). Moreover, this article presents evidence about the role of middle managers in each stage of BMI beyond the crucial role of initiators and forerunners (Ott & Eisenhardt, 2020; Ringvold et al., 2023).

Second, the research adds to the microfoundations of the dynamic capabilities research stream by connecting Teece's (2007) approach and the microfoundation movement (Felin et al., 2015). We have argued that each of the BMI stages we have identified draws on one of the clusters of dynamic capabilities proposed by Teece (2007) (sensing in *Stage 1*, seizing in *Stage 2*, and reconfiguring in *Stage 3*), providing evidence for these microfoundations and related practices in a new context (which materializes at the second and third levels in Figure 2). Moreover, our research also moves toward the microlevel, shedding some light on the critical individual-level components proposed by Helfat and Peteraf (2015) when discussing dynamic managerial capabilities. Specifically, our research illustrates how situational mechanisms (e.g., industry trends, firm strategy, and customer demands) focus attention and set limits for new opportunities searching in *Stage 1*. Additionally, our findings highlight the crucial role of self-reflection guided by experience in *Stage 2* concerning problem solving and reasoning. Finally, as suggested by earlier studies (e.g., Ringvold et al., 2023), communication also plays a pivotal role in our findings as a tool to provide feedback, enact the vision, and promote organizational commitment and entrenchment in *Stage 3*.

6.2 | Managerial implications

Our research also offers a framework that can guide the understanding of the above requirements and may complement other tools already used during BMI (Gassmann et al., 2020; Osterwalder & Pigneur, 2010). Findings may help managers answer questions such as "What does BMI mean regarding strategy work?," "What practices should be required in BMI?," and "How should our HR profiles, organizational processes, and practices be altered to find dynamic consistency according to our strategy?" Next, we offer practical implications and directions for managers to find these answers and promote and implement BMI.

Individuals at all organizational levels, including front-line employees and middle and top managers, are instrumental in initiating, developing, and implementing innovative ideas and driving BMI. Senior leaders must foster a creative culture in their workforce, eliminating rigid business cases (Ringvold et al., 2023) and building a secure environment where innovation is encouraged by setting the right incentives. Mechanisms, such as establishing internal innovation or idea incubation programs to provide employees with the resources and autonomy to explore new opportunities, are needed to promote creative behavior. For example, developing adequate HR practices and incentives is crucial because BMI requires individuals with specific mindsets and teams with certain characteristics (Loon et al., 2020).

Understanding the individuals' profiles that drive BMI is vital for their management to develop them. In addition to hiring innovation champions, training focused on innovative thinking and management can provide employees with skills to challenge the status quo and think outside the box. Of course, upskilling and reskilling activities may be supported by suitable recognition and reward systems that formally acknowledge contributions to BMI to incentivize and motivate people to imitate such behavior.

Individual behavior and interactions define key processes for BMI, such as sensemaking, value creation, learning and knowledge sharing, and strategizing processes (Andreini et al., 2022). Understanding the processes and practices that can lead to BMI is vital for management to implement them. Strategizing is essential, as a steering mechanism and flexible structures support the implementation of key processes. Interaction and collective processes are critical across BMI stages. Managers must break down organizational silos, eliminate communication barriers, go beyond prevailing informal practices, establish communication channels and forums to support open communication and knowledge sharing, and promote cross-functional collaboration. Cross-organizational project teams can also facilitate idea exchange and business model development activities. Empowering employees on these teams to work autonomously by endowing them with some budget and decision-making freedom seems to be a critical success factor. Managers trying to innovate must promote the adoption of agile methodologies, which allow quick prototyping, testing, and refining of new business models. Thus, organizations can respond faster to market or regulatory changes.

Senior managers must frame and adequately communicate a clear long-term vision and agenda that aligns with the organization's strategic objectives while ensuring that all employees understand their position in BMI's ongoing strategic activities. Leaders are vital to stimulating innovation and cooperation, and effective leadership styles can foster an environment where creative processes thrive. Managers must adopt flexible organizational structures that allow agility and responsiveness to new opportunities while preserving controls to balance innovation with operational stability. Radical business model development may require dedicated resources, differentiated governance structures, and longer development and implementation schedules. Additionally, it could involve new specialized cross-unit innovation teams, even ad hoc teams, which should be free to pursue disruptive ideas without being constrained by existing processes and budgets. Finally, BMI should be seen as an ongoing process and continuously promoted through participation in innovation ecosystems that serve as a means for new ideas, technologies, and business model propagation and provide a relatively safe environment that enables rapid testing and scaling up. Thus, managers must look for joint innovation opportunities, including collaboration and partnerships supporting the company's strategic goals. Indeed, proactively engaging with external stakeholders may ensure the viability of new business models. Examples include co-creation with customers, communication with regulators, and participation in industry forums to support BMI. Moreover, not only does past research support our implications, but in complex transitions, Aagaard and Vanhaverbeke (2024) suggest that BMI requires a cross-disciplinary and multi-stakeholder approach to open innovation in somewhat open ecosystems.

7 | LIMITATIONS AND FUTURE RESEARCH

This research draws on a qualitative multiple-case study. A key limitation is that we considered cases where the companies successfully found new business models, such that our findings may suffer from survivorship bias. Studying companies that fail can yield insightful findings. As with every case study, this study does not seek statistical generalization but is used as a methodological instrument for generating theory (Yin, 1994). Nevertheless, we argue that some highly cautious contingent generalization is possible (Pratt, 2009). Thus, our findings may be relevant to other firms transitioning to BMI, especially traditional manufacturers disrupted by digitalization.

Our findings and analysis represent potentially falsifiable insight into the microfoundations of BMI, and a quantitative approach is, therefore, applicable in principle. Thus, our research may suggest new hypotheses about the microfoundational underpinning of BMI, which we would like to test in future research. One potential problem is that datasets that allow measurement of the BMI construct are few, and measurement scales are virtually nonexistent (see Saebi et al., 2019). Given this problem of missing data infrastructure, another way forward is to continue conducting small-N BMI research (Foss, 2021). This would entail researching the microfoundation dimensions of BMI in industries other than the one we considered here. Such research would also allow for more fine-grained and illuminating comparisons across cases and findings concerning such issues as the relative importance of different microfoundational drivers of BMI and how exactly microfoundational factors are causally involved in BMI across different firms and industries.

Finally, we followed a positivist approach when planning and implementing the case study (Eisenhardt & Graebner, 2007; Yin, 1994), which calls for

decontextualizing our findings (Welch et al., 2011). Nevertheless, we recognize that the context is essential in our research and may even be part of the explanation. Moreover, microfoundational explanations rely on a layered social ontology to derive mechanistic explanations (Foss, 2021). Consequently, approaching the microfoundations of BMI using a critical realist lens is an option for future studies.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon request.

ETHICS STATEMENT

The authors have read and agreed to the Committee on Publication Ethics (COPE) international standards for authors.

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APPENDIX A

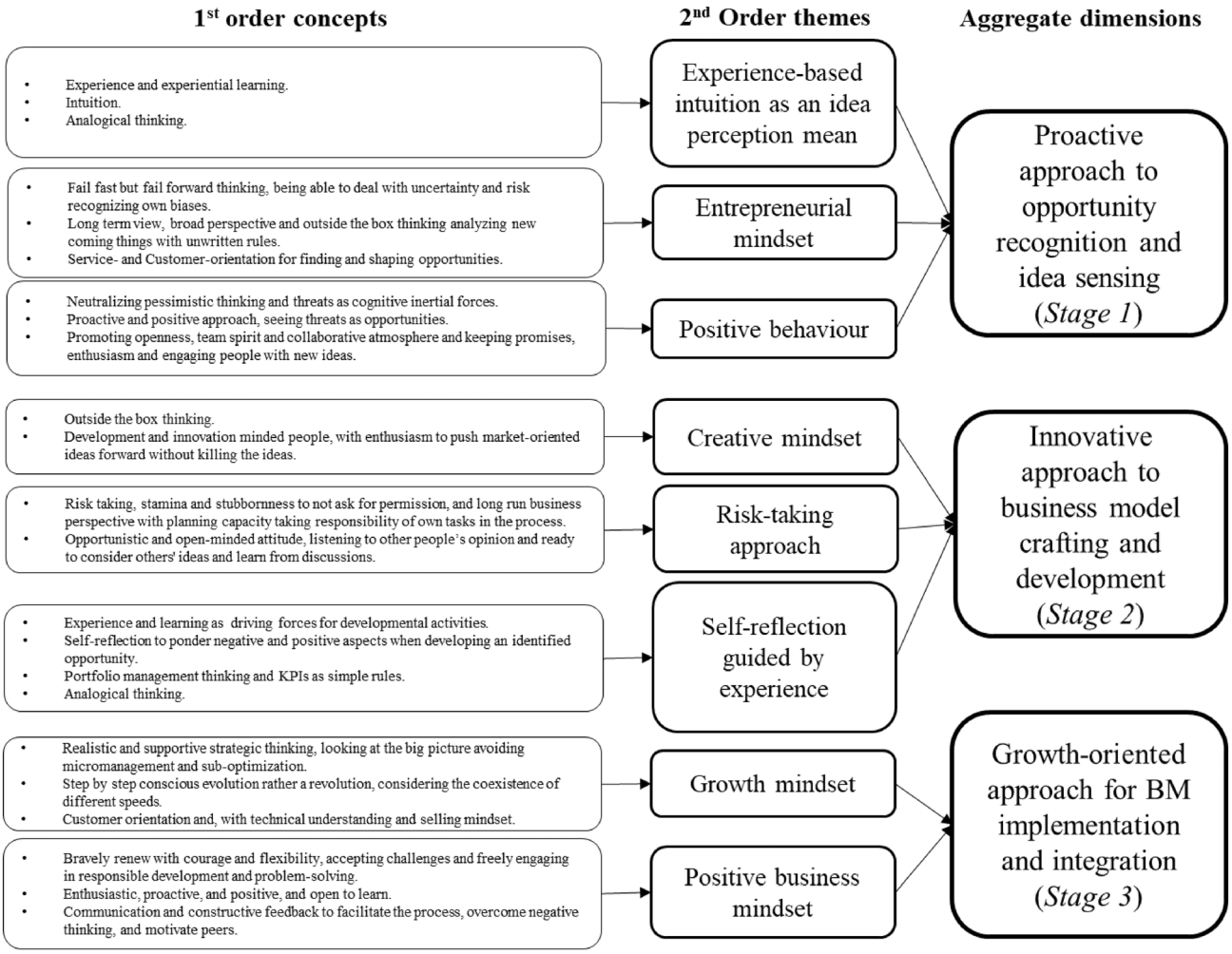

FIGURE A1 Data structure. Individual-level components (Level 1) in each BMI stage.

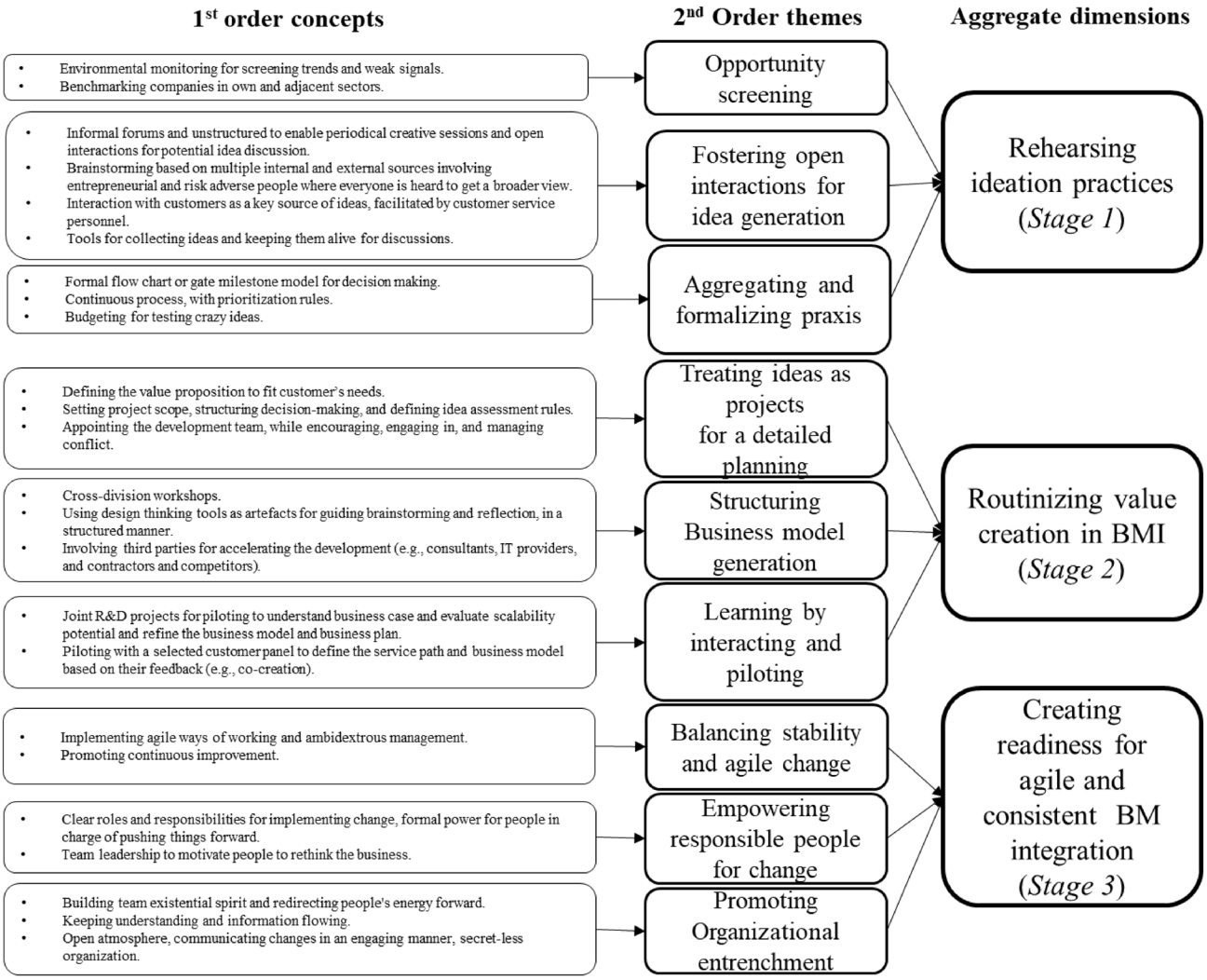

FIGURE A2 Data structure. Processual and interactional components (Level 2) in each BMI stage.

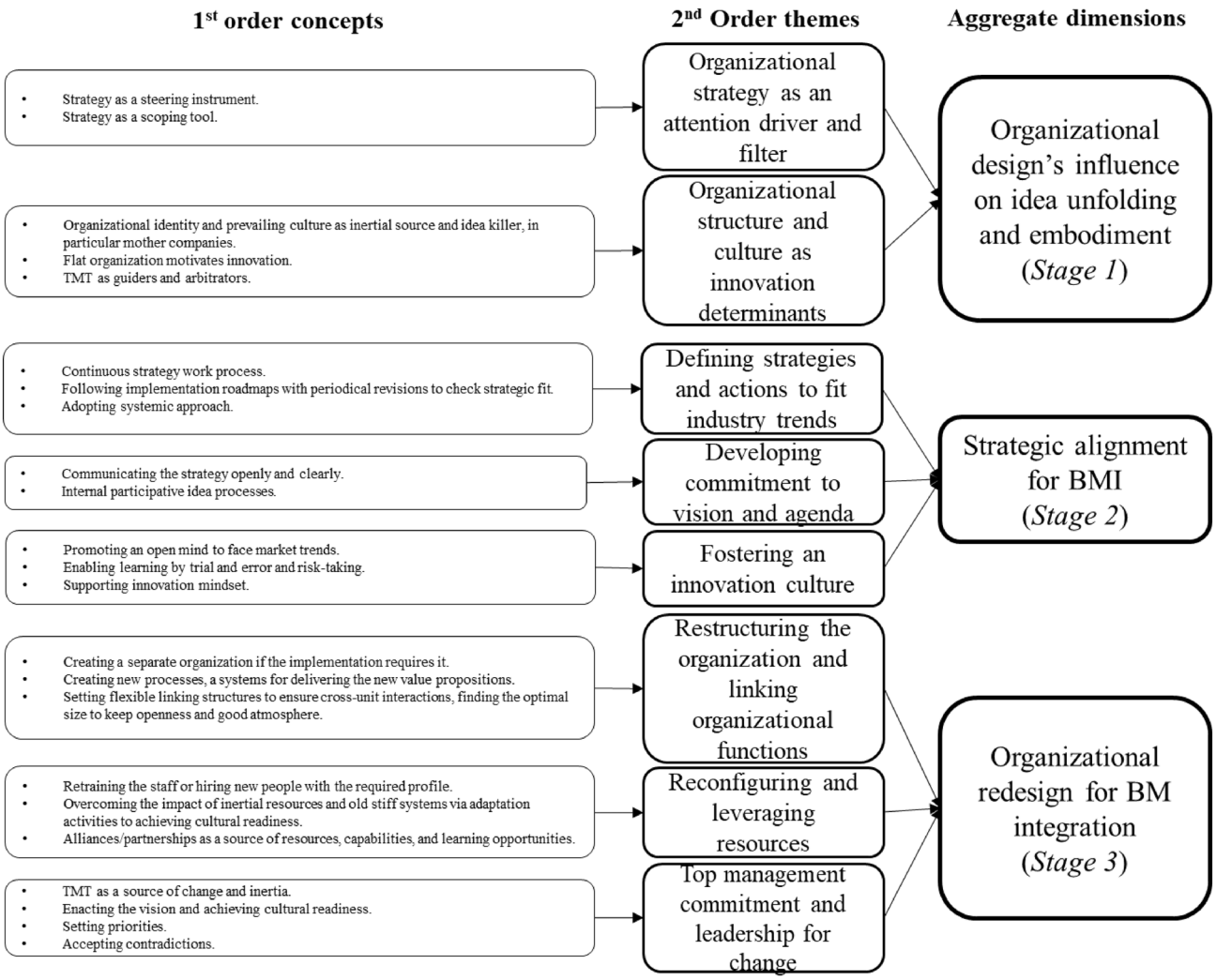

FIGURE A3 Data structure. Structural and design components (Level 3) in each BMI stage.

TABLE A1 Microfoundations of BMI: A summary of the key findings.

Level/stage	Stage 1	Stage 2	Stage 3
Structural and design-level components (Level 3)	*Key elements* 1. Organizational strategy as driver and filter is a steering and scoping instrument 2. Organizational structure and culture are strong innovation determinants defining flexibility and inertia, influencing individuals' perceptual filtering and cognitive framing 3. TMT is essential to promoting individual innovative behavior via incentive setting *Main mechanisms* 1. Industry trends, strategy, and customers' needs drive individuals' attention and influence the search direction and scope at *Level 1* 2. Flatter and culturally ready organizations foster an innovative attitude. The CEO (and TMT) acts as a guide and compass to create an innovative culture and support experiential learning	*Key elements* 1. Formulating a strategy to fit industry trends is a guideline for developing new business models 2. Developing a commitment to the vision and strategic alignment, where participation and communication are essential 3. Fostering an innovative culture to promote trial-and-error and risk-taking-driven behaviors and providing opportunities for exploration and experimentation *Main mechanisms* 1. Legislation, technology, and customer needs are scoping mechanisms for business model development 2. Strategy acts as a steering and scoping mechanism. It sets the shared vision and the developmental agenda and actions 3. Organizational culture influences individuals' mindsets (at *Level 1*), determining innovative behaviors and creative problem-solving 4. TMT serves as a mediator and arbiter for emerging conflicts regarding ideas for BMI, observing strategic alignment 5. Distributing clear and formal communication	*Key elements* 1. Restructuring the organization and interlinking its functions to ensure organizational interactions 2. Reconfiguring and leveraging resources 3. TMT's commitment and leadership to achieving change by enacting the vision, setting priorities, and accepting contradictions *Main mechanisms* 1. Prevailing organizational culture (e.g., cultural readiness) and structure define agility and speed to respond to changes 2. Recruiting new staff is often needed to resource new tasks and positions and will impact behaviors and interactions at *Level 1* and drive cultural shifts 3. The CEO (and TMT) act as change evangelists (crafting change narratives); communication is critical and affects people's mindset (at *Level 1*)
Processual and Interactional-level components (Level 2)	*Key elements* 1. Opportunity screening to benchmark competitors and adjacent industries and formal customer interactions to observe their needs 2. Fostering interactions for idea generation 3. Aggregation and formalization of praxis *Main mechanisms* 1. Employing formal and (mainly) informal market intelligence activities, practices, data/analytics, and tools for opportunity recognition to identify and interpret environmental signals (trends and patterns) and develop new ideas 2. Organizing open cross-organization channels and periodical gatherings for ideation and sensemaking, where	*Key elements* 1. Treating ideas as projects for detailed execution planning includes idea prioritization and following clear implementation rules 2. Structuring business model generation to routinize business model development based on a customer-centric approach 3. Learning and seeking scaling opportunities *Main mechanisms* 1. Using project portfolio management tools (gate models, KPIs, milestones, roles, and project teams) and decision-making frameworks, including artifacts, such as roadmaps and business model canvases, to	*Key elements* 1. Balance stability and change 2. Empowering responsible people based on team leadership 3. Promoting organizational entrenchment by building team spirit and an open, engaging atmosphere to redirect people's energy. Openness and knowledge-sharing culture, internal communication, and information-flowing practices are needed to create team spirit, generate employee enthusiasm and satisfaction, and cope with resistance *Main mechanisms* 1. Implement agile working and ambidextrous (change) management practices and

TABLE A1 (Continued)

Level/stage	Stage 1	Stage 2	Stage 3
	ideas are pre-selected, assessed, and prioritized 3. Introducing stages models for idea aggregation and praxis systematization	facilitate the business modeling process 2. Organizing cross-functional participatory periodical gatherings and channels with external facilitators and design-thinking tools for collective sensemaking and brainstorming, where people collectively interpret opportunities and conditions (and their business implications) and, consequently, ideas are twisted and further developed 3. Participating in joint R&D projects, coopetition, and partnering with tech companies for ecosystem building, learning (process improvement), complementing capabilities, and scaling opportunities via testing, prototyping, and piloting (including some business model experimentation and co-creation with users)	control mechanisms, and seek continuous improvement (e.g., feedback loops and monitoring) to ensure resource synergies, capability leveraging and integration, and the smooth operational alignment and adoption of new business models 2. Adapting or changing existing systems, adopting new technologies, and retraining personnel. The task also involves acquiring resources through integrating complementary competencies and partnership management 3. Establishing clear roles and responsibilities 4. Providing adequate internal communication, promoting openness and information flow to create team spirit, generate employee enthusiasm and satisfaction, and cope with resistance at *Level 1*
Individual-level components (Level 1)	*Key elements* 1. Entrepreneurial mindset, risk acceptance, and long-term view 2. A positive attitude and proactive approach are needed to neutralize inertia from pessimistic thinking and promote openness and a collaborative atmosphere for new opportunity identification 3. Experience-based intuition acts as an idea perception enabler based on experience, intuition, and perception of business potential. Experiential learning and networking in different forums and groups (e.g., fairs or specific industry events) and with various stakeholders are essential *Main mechanisms* 1. Promoting intrapreneurship, exploration, experiential learning, open openness, and a collaborative atmosphere 2. Employees act as initiators (particularly innovation champions). Middle managers are a buffer, communicating and advancing ideas while seeking the TMT's buy-in. New employees come with fresh opportunity-sensing practices and business ideas	*Key elements* 1. Innovative individuals with creative mindsets, strong market orientation, and out-of-the-box thinking are crucial behaviors and characteristics 2. A willingness to take risks involves stamina and stubbornness and enables individuals to challenge the status quo, defy organizational norms, and carry on tasks without authorization when needed (sometimes jeopardizing old businesses) 3. Self-reflection is guided by experience, following analogical thinking, and some simple rules where individual learning is crucial *Main mechanisms* 1. Promoting risk-taking and market orientation behaviors based on clear incentives to influence business model development 2. Middle managers act as networkers, connecting external and internal stakeholders, promoting interactions, and	*Key elements* 1. A growth-oriented approach (e.g., step-by-step with strategic thinking) is a crucial attitude 2. Business mindset, acceptance of challenges, and engaging in responsible and positive problem-solving *Main mechanisms* 1. Using incentives to guarantee behavioral change (e.g., accepting and adapting to new roles and processes) and commitment to change to ensure the effectiveness of the reconfiguring efforts and adoption of new models 2. As change agents or enablers, middle managers are crucial in promoting organizational growth

(Continues)

TABLE A1 (Continued)

Level/stage	Stage 1	Stage 2	Stage 3
	3. Internal communication, effectively using IT tools to follow up and keep opportunity-related ideas alive	mediating in conflictive situations at the team level	

TABLE A2 Prevalence of the framework's aspects by company case.

Dimension		Elements	Case 1 (M1–M4)	Case 2 (M5–M8)	Case 3 (M9–M12)
Individual-level components (Level 1)	A proactive approach to opportunity recognition and idea sensing (Stage 1)	Experience-based intuition as an idea perception means	+	+++	++
		Entrepreneurial mindset	+++	+++	+++
		Positive behavior	+++	+++	+++
	Innovative approach to business model crafting and development (Stage 2)	Creative mindset	+	+	+++
		Risk-taking approach	+	+++	++
		Self-reflection guided by experience	+	+++	+++
	Growth-oriented approach for BM implementation and integration (Stage 3)	Growth mindset	+++	+	+++
		Positive business mindset	++	++	+++
Processual and interactional components (Leve 2)	Rehearsing ideation practices (Stage 1)	Opportunity screening	+	+++	+++
		Aggregating and formalizing praxis	+	+++	+
		Fostering open interactions for idea generation	+++	+++	+++
	Routinizing value creation in BMI (Stage 2)	Treating ideas as projects for detailed planning	+++	+++	+++
		Structuring business model generation	+++	+++	+++
		Learning by interacting and piloting	++	+	++
	Creating readiness for agile and consistent BM integration (Stage 3)	Empowering responsible people for change	+	+	+++
		Promoting organizational entrenchment	+	+++	++
		Balancing stability and agile change	+	+	++
Structural and design components (Level	Organizational design's influence on idea unfolding and embodiment (Stage 1)	Organizational strategy as an attention driver and filter	++	+++	+++
		Organizational structure and culture as innovation determinants	+	+	++
	Strategic Alignment for BMI (Stage 2)	Building commitment to vision and agenda	+	+	+
		Defining strategies and actions to fit industry trends	+++	+++	+++
		Fostering an innovation mindset	+	+++	++

TABLE A2 (Continued)

Dimension		Elements	Case 1 (M1–M4)	Case 2 (M5–M8)	Case 3 (M9–M12)
	Organizational redesign for BM integration (Stage 3)	Restructuring the organization and linking organizational functions	++	+	+++
		Reconfiguring and leveraging resources	+++	+	+++
		Top management commitment and leadership for change	+	++	+++