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BUSINESS MODEL INNOVATION AND MANAGERIAL TENSIONS FOR SUSTAINABILITY: A CASE STUDY IN THE ENERGY SECTOR

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ABSTRACT

This study investigates how managerial tensions affect Business Model Innovation (BMI) in the context of newcomers navigating cross-industry innovation and sustainability transitions. Our findings reveal that tensions within markets and business models often create contradictory conditions that significantly impact BMI success. Effectively managing relationships between assets is crucial for overcoming these challenges and achieving market success and competitive advantage. Through a detailed case study of a new entrant in the energy sector, we illustrate how managerial tensions can influence BMI outcomes, particularly amid pressures of innovation across industries and sustainability transitions. Furthermore, we examine how managers address these challenges during the BMI process, balancing conflicting demands at different levels.

Keywords*: Entrepreneurship, Managerial Tensions, Paradox theory, Sustainable Business Models, Phenomenology.*

1. INTRODUCTION

Business Model Innovation (BMI) has garnered increasing attention in academic discourse, spurring further research to enhance our theoretical comprehension of its positive effects on firms' performance (Foss and Saebi, 2017). Throughout the BMI process, managers often face various tensions, which can significantly influence its outcomes. Mintzberg (1991) characterizes Managerial Tensions (MTs) as the ongoing struggle managers confront in balancing organizational needs, objectives, and limited resources amidst competing priorities and strategic decisions. These tensions can arise from *"inherently paradoxical"* conditions (Austen, 2018, p.7) where "*contradictory yet interconnected elements that appear rational in isolation but become absurd and irrational when considered simultaneously*" (Lewis, 2000, p.769). In this context, MTs can influence BMI outcomes, which encompass improved profitability, increased innovativeness, expanded market access, and overall enhancements in firm performance (Zott and Amit, 2007; Chesbrough, 2010). However, these outcomes depend on managerial decisions and boundary conditions, such as cross-industry innovation (Enkel and Gassmann, 2010), and internal factors like corporate sustainable transitions (Van Bommel, 2018).

Despite existing research has delved into the overall firm performance after the BMI process (Aspara et al., 2010; Zott and Amit, 2007), there remains a gap in understanding what factors, at what levels, may influence the strength of this process. Furthermore, conceptual (Smith and Lewis, 2011) and empirical (Kreiner et al., 2006) examinations of tensions exist, yet comprehension of how MTs can moderate the BMI outcome remains limited.

Therefore, in this study, we investigate the following research questions:

- *(RQ1) What is the influence of MTs as moderators in the BMI process and how do they depend on boundary conditions (i.e., Sustainable transition and Cross-industry innovation)?*
- *(RQ2) How do managers approach the balancing of MTs, and which are the multiplicity of competing demands at different levels?*

To address these questions, we delve into conditions, contingencies, and outcomes via a case study, yielding two theoretical contributions. Firstly, we document MTs resulting from BMI within cross-industry innovation, an underexplored area compared to BMI categorization (Foss and Saebi, 2017). Secondly, we elucidate how these tensions are particularly pertinent to new entrants, who may encounter, at a macro-level, scale, and scope-related challenges. These include the allocation of managerial attention across strategic decisions at various corporate and business levels, access to financial resources, and financial performance issues, all of which can be addressed through dynamic capabilities (DCs) (Best et al., 2021).

2. THEORICAL BACKGROUND

BMI involves the activity of designing, implementing, and validating a new business model (Massa and Tucci, 2013). It entails creating, modifying, or reinventing key components of an existing Business Model (BM) to achieve competitive advantages, provide added value for customers, or address new entry threats, market changes, technology, or regulatory context (Christensen et al., 2013; Osterwalder and Pigneur, 2010). Firms' management innovates existing BM in various ways and for different purposes (Cavalcante et al., 2011), often facing challenges known as *"managerial tensions"* arising from paradoxical conditions, such as tensions stemming from the *"diversity of stakeholders and their conflicting strategies and objectives"* (Smith and Lewis, 2011, p. 384). These paradoxes may occur along the sustainability transition (Hahn et al., 2018), which entails a shift away from resource-intensive and environmentally harmful practices towards more sustainable modes of production, consumption, and governance (Amui et al., 2017). Instead of attempting to avoid or reconcile tensions, the paradox perspective focuses on managing tensions among elements and integrating sustainability into the organization's fundamental processes, thereby establishing long-term potential for value creation (Crane et al., 2014). To navigate this transition, certain sectors, such as the energy industry, are fostering Cross-Industry Innovation which results in a business environment characterized by a multi-stakeholder network (Spieth et al., 2019).

Newcomers can be particularly vulnerable to these tensions, while contending with paradox related to multiple stakeholders and the search for a long-term sustainable advantage (Best et al., 2021). In this regard, DCs have emerged as a critical means through which firms can moderate the effects of managing change and tensions (Teece, 2007; Best et al., 2021). DCs have been defined by Teece et al. (1997) as *"The firm's ability to integrate, build, and configure internal and external competencies to address rapidly changing environments"*. Under these circumstances, DCs approach mediates the effect of paradoxical tensions by enacting sensing, seizing, and transforming dynamic capabilities and actions, mechanisms which can facilitate strategic alignment (Yeow et al., 2018).

Addressing this gap, we aim to (i) investigate the role of boundary conditions, particularly MTs, as moderators influencing BMI outcomes, responding to the call by Foss and Saebi (2017) for empirical investigations; (ii) examining the multitude of competing demands at both micro and macro levels presented by Best et al. (2021).

3. RESEARCH METHOD AND CASE SELECTION

The aim of this paper is to shed light on the BMs evolution and its outcomes in a cross-sector innovation setting, leveraging a "*revealing context*" (BMI) in which the phenomenon of interest (MTs) could be *"transparently observed"* (Yin, 1994, p. 40). We conducted an in-depth longitudinal case study of a newcomer in the energy sector, the company Alpha Group[1], which stands out as one of the main energy companies in the European context outside the tier of well-established incumbents. Specifically, the company operates globally on the blurred edge of renewable energy storage and transportation industry.

Established in 2005 as a spin-off of two prominent Italian technical and engineering universities, the Group achieved €273 million in revenues in 2023. The Group experienced a remarkable growth rate of 65% between 2022 and 2023 and employed 542 individuals. The research interest lies also in the fact that the company has a global presence (revenue distribution: 46% in Asia, 22% in North America, 21% in Australia, 6% in Latin America, and 6% in Europe) allowing us to evaluate a corporate strategy's effectiveness across diverse markets and regions, enriching the case study with insights into global business dynamics.

The case study methodology, endorsed by academia, facilitates an in-depth exploration of phenomena within an empirical context, enabling theoretical elaborations and theory building (Fisher and Aguinis, 2017; Yin, 2018). Moreover, this methodology aligns with the recommendation made by Foss and Saebi (2017) to empirically investigate both the outcomes of BMI and the external and internal factors (MTs) that could impact it, through studies incorporating a temporal dimension and employing explicit identification strategies.

The chosen case represents the sole entrepreneurial activity in Italy that possesses the requisite characteristics enabling us to analyse and navigate the context of cross-industry innovation. Furthermore, we adopted a phenomenology approach that (Anosike et al., 2012) allowed us to thoroughly evaluate a current occurrence in its actual setting, examine at how the BM has changed and developed through time, and to understand the variables, processes and the tensions that have emerged or contributed to these changes. The analysis focuses on the period 2008-2024 aligning with Alpha ascent as a significant player in the energy sector and in which the company performed the BMI, expanding certain aspect of the BM, and revising others due to limited demand.

Procedures related to data collection (section 3.1) and data analysis (section 3.2) are described below.

3.1 DATA COLLECTION

[1] The company under examination, referred to as Alpha herein, has been anonymized for confidentiality purposes.

In conducting this study, we employed a mix of retrospective and real-time data collection methods (Pettigrew, 1990). The data gathered covers the period from 2008 to 2024 and were sourced from various streams and channels. This approach was adopted to (i) achieve a more comprehensive understanding of the dynamics being studied by expanding the information pool and diversifying data origins to mitigate biases and (ii) triangulate the data to bolster the reliability and validity of the findings.
Table 1 provides an overview of the primary and secondary data sources utilized in the analysis.

The interviews were structured to delve deeply into participants' perceptions, attitudes, and experiences regarding sustainability practices, organizational restructuring activities, competitive dynamics, and associated MTs. Specifically, our aim was to comprehend the primary tensions arising during the innovation process and the sustainability transition, as well as the strategies employed to address these tensions. Furthermore, to increase the data accuracy one of the authors spent 750 hours as a company insider, directly observing the management process, internal strategic decisions, and collecting data from their historical archives, along with some of the secondary data that were both internal and public information.

During the data collection efforts, we conducted 12 in-depth semi-structured interviews with key executives, amounting to a total duration of minutes and 196 pages of transcription. Additionally, insights from a former co-founder, now serving as an external consultant, provided valuable perspectives on the startup's early stages. All the data were collected with the aim to obtain findings that are not only pertinent to the specific phenomenon under investigation but also generalizable in terms of effectively managing similar challenges characterized by paradoxical conditions.

Table 1 – Data collection.

Data source	Type of Data

Semi-structured interviews	**Obtained from 12 interviews:**
	• 4 interviews of the company CEO
	  o 2022 (May, October, November)
	• 3 interviews of the CTO of Alpha Energy and Alpha 2
	  o 2023 (June, November, December)
	• 3 interviews of Head Product Strategist of Alpha Energy
	  o 2023 (November); 2024 (January, March)
	• 2 Interviews of the Head of Sustainability of Alpha Gorup
	  o 2024 (Feb, March)

Secondary sources provided by informants and collected on-site (from 2008 to 2024)	• Annual reports (financial and sustainability statements). • Technical documents on product supply chain and related production sites over the years. • Direct observations (management decision, implementation of strategies, daily operation, interaction between employees). • Strategic documents (strategic plans, business reports, marketing strategies, product development plans). • Sustainability and Risk management procedures and policy.
Press release and web-scraping	• Interviews of management for trade fares. • Publicly available data and analyst reports (Orbit and Ekon Refinitiv Database).
Other publications	• Shareholder calls

3.2 DATA ANALYSIS

The analysis adhered to an inductive method, consistent with the approach commonly recognized by academia for longitudinal case studies (Yin, 1994). All interviews and collected data were utilized to map the BM and its temporal evolution, as well as the structure of business units (BUs) and their interdependencies. This involved reconstructing the company's history through the lens of the former co-founder and leveraging secondary available data.
Following the case study protocol, interview transcripts were translated into English and coded based on various themes, including Description, Value Proposition, Value Creation and Interdependencies, Revenues and Projects, Customers, and Core Products. Subsequently data were triangulated using over 1500 pages of press releases, sustainability, and financial reports, along with 500 minutes of interviews and firm's Executive speeches delivered to shareholders or the press. This allowed us to identify Alpha's system of activities, corporate strategy evolution, and the macro-tension, followed by six micro-tensions along with the methods employed by management to resolve them.

4. FINDINGS

The longitudinal analysis of the company reveals that BMI over the years has resulted in radical product innovation and the adaptation of skills to capitalize on new market opportunities arising from the electrification of mobility. This has provided Alpha with an opportunity to leverage the flexibility of a new-entrant company to target multiple markets and geographies over time. However, it has also led to MTs between the speed, scale, and scope of action.

As follow the description of the corporate strategy (Section 4.1), the temporal evolution of the BM (Section 4.2), and the MTs encountered by the company and the solutions employed to address them (Section 4.3).

4.1 THE SYSTEMS OF ACTIVITIES AND THEIR INTERDEPENDENCIES

Over its growth and thanks to some strategic alliances, Alpha has become an operator characterized by presence in three market segments (EVs charging stations, energy storage from renewable resource, car parking and car sharing services) over two industries (electric mobility, energy storage). To achieve this objective, Alpha embarked on a BMI extension process, resulting in the establishment of a holding company, Alpha Group. This holding entity was structured around the core company, Alpha Energy, alongside the introduction of two additional subsidiaries, Alpha1 and Alpha2 (Table1).

The company's mission according to its website is to *"Enable the Global transition towards clean energy and sustainable mobility, shaping the future for the next generation to live in harmony with our planet"* highlighting its strong commitment to environmental sustainability. Furthermore, the Group CEO emphasized that: "*The two sectors in which Alpha decided to invest, namely electric mobility and power generation, then have to do with 40-50 % of global emissions. Thus, Alpha has realized that to succeed in the company's mission, it was necessary to invest in battery storage to increase the share of renewable energy that can be absorbed by the electric system and apply the same technological principle to electric mobility. The skills required to operate in these two*

different areas are very similar and allow for economies of scope and scale, leading to related cost advantages."

Table 1. A comprehensive description of ALPHA's Global business lines.

BUs	ALPHA Energy	Alpha1	Alpha2
Description	System integrator with proprietary products that provide custom solutions tailored on the necessity of the client.	Alpha and Car-maker joint venture aimed at Providing car-sharing services, parking facilities, and residential charging solutions.	Ultrafast and fast charging network infrastructure empowered by Vehicle-to-Grid (V2G) technology powered by renewable energy.
Value Proposition	Turnkey solutions aim to balance the energy distribution grid and enable a higher level of renewable energy integration.	Harness V2G technology within large parking facilities to facilitate energy arbitrage improving at the same time the Electric Vehicles (EVs) penetration rate.	Provide ultrafast charging services utilizing proprietary product developed by Alpha Energy and integrating V2G technology to establish a distributed energy storage network supported by small-scale storage units adjacent to the chargers.
Value Creation and interdependencies	Creating value through the development of customized installations characterized by high quality engineering, modular design and proprietary product and software.	Exploiting the Partner customers to get closer to build loyalty trough a B2C model. Exploiting the economies of scope and technology shared with Alpha (e.g.V2G).	Establishing a 'virtual power plant' equipped with 1.5 GWh of distributed storage. This asset portfolio can be optimized for selling electricity and for energy. Arbitrage through purchasing at low prices and locally selling to individual vehicles, creating a more complex. The technology pillars are mainly inherited by Alpha Energy.
Revenues and Projects	EUR 205 mln of revenues, EUR 7 mln of EBITDA, 1.9 GWh of projects under construction (2023).	EUR 65 mln revenues and EUR 5 mln of EBITDA. 22.000 wall-box sold and 13% penetration rate within the partner's customer.	EUR 4 mln revenues and EUR (18) mln of EBITDA. 1800 fast and ultra-fast charging points online and 1800 under construction.
Customers	B2B, Utilities (renewables energy producers), large companies and power transmission grid operator	B2B and B2C	B2B and B2C
Core Products	Battery Energy Storage systems, Grid support System Micro grid and Utility scale storage.	Car sharing, parking, and charging infrastructure.	Ultrafast and charging solutions powered by renewable energy.

Alpha's strategy for value creation relies on harnessing asset complementarity and interdependence, coupled with DCs within a cross-sectoral innovation framework with its partners. The CEO of Alpha Group stated, "*The challenges of grid connection served as the impetus for the inception of Alpha2, foreseeing grid instability emerging over three years in advance. As Alpha2, we transcend the role of mere Charging Point Operators (CPOs) to become technology-driven CPOs, leveraging engineering and technology inherited from Alpha Energy to tackle this challenge head-on. For us, this represents not just a 'problem' but, rather, a competitive advantage compared to competitors who connect directly to the grid*."
This strategy was also aligned with innovation, as the CTO of Alpha Energy said, "*Alpha aims to position itself as an energy trader rather than acting as a passive agent. [...] The firm is exploring new opportunities and appears to be focusing on innovative initiatives in exploring new business models and new uses for electric vehicle batteries*."

This approach, guided by MTs prioritizing speed of action and cost reduction, has led to the cultivation of a robust portfolio of competencies. This portfolio represents one of the outcomes of a series of BMI implemented over several years, spurred by the micro-level tensions inherent in decision-making processes on paradoxical conditions. The analysis

of interviews suggests the sensing market capability and the foresight of the management that has allowed the firm to anticipate a problem that has not yet fully occurred.
Notably, BMI facilitated the reconfiguration and acquisition of Alpha's competencies, enabling penetration into new market sectors and leveraging economies of scale and scope through industrial partnerships. All endeavours mainly have been driven by the need to diversify product and market geographies in search of a competitive advantage supported by speed of action and economies of scale and scope as a defence mechanism due to the commoditization of battery storage. The cross-industry innovation underscores the reliance on a common supply chain between energy storage and EVs construction as the CEO of Alpha Energy declared "*Battery costs are continually decreasing, consequently driving down the costs of our projects as well (at equal size compared to the past). However, we are currently exposed to potential threats from suppliers and the possibility of new entrants.*"

4.2 CORPORATE STRATEGY EVOLUTION

ALPHA's vertical integration has evolved over time (Table 2), initially focusing on upstream states (software, partially power electronics), followed by downstream ones (development and commercialization of ultra-fast charging points, residential charging, and associated services). Each change in the BM organization gave rise, or has been the solution, to specific managerial tensions. Over 15 years the company underwent multiple BM change (i) BMI expansions when was necessary to exploit market opportunities or being cost-effective by leveraging asset interdependencies and core competencies (from energy storage competencies to charging infrastructure for EVs; from a B2B model to a B2C one) (ii) BMI revision when demand for its products and services prompted a product strategy change (form Hydrogen storage system to renewable energy storage).

Table 1. The evolution of ALPHA's business model.

TIMELINE	ACTION	BMI
2008 - 2015	• Software vertical integration, to produce a BMS that allows optimal battery sizing (cost advantage) and to be competitive in the micro-grid context.	BM revised
	• Hydrogen for energy storage and Plomb Batteries.	
2015 - 2018	• Integrate vertically into the power generation area by developing an inverter.	BM extension
	• Start the use of other battery types (Li-io and NaCl) but the economies of scale and scope was not yet enough.	
2018 - 2021	• Product development based on cross-sector open innovation and strategic partnerships such as Carmaker and Politecnico di Milano concerning Batteries, V2G and charging stations.	BM extension
	• The majority stake was acquired by a large French utility, which began to explore utility-scale solar and storage. A joint venture (Alpha2) was founded, and another subsidiary (Alpha1) was established.	
2021 – in palce	• Downstream vertical integration in the direction of the customer to generate a bundle offer of services and products for the customer (From B2B to B2C).	BM extension
	• Majority stake acquired by big Asian Cement firm.	

Alpha embarked on a rapid growth trajectory by offering comprehensive solutions for energy storage sourced from renewable sources. To achieve this, they engineered an optimized system integrating software, including a battery management system designed for micro-grid applications, and a modular architecture customized to meet clients' requirements. Embracing a modular approach, coined the "*Lego bricks approach*" by the co-founders, the company struck a balance between bespoke specifications and scalability to streamline project execution. At a technical level, the firm's strategy focused on product and services able to *"balancing the grid"* and providing tailored solutions to address this challenge, necessitating rapid market share expansion. The concept of balancing the energy grid distribution involves implementing measures to ensure equilibrium between inputs and withdrawals in the national electricity system, particularly challenging in the presence of intermittent energy sources (i.e., photovoltaic, wind power) and high energy demand (EVs charging). This entails maintaining the system's inertia to ensure stability and reliability amidst fluctuations in energy production and consumption.

To achieve global reach and cost-effectiveness, the company devised a BM centred on a network approach to enhance cross-sector innovation. The overarching strategic plan revolved around mitigating grid stress linked to EVs charging and renewable energy sources by deploying small, widely distributed battery packs. Standardizing interdependencies within the BM the goals were:

I. Alleviating grid instability by leveraging the extensive battery network of Alpha2 to address high peaks in power demand. This was achieved by utilizing Alpha Energy technology and capitalizing on the large parking services managed by Alpha1, effectively transforming them into a distributed battery network.
II. Developing a varied range of proprietary products and software to achieve cost and technical advantages while simultaneously reducing reliance on Chinese suppliers and addressing environmental and social sustainability concerns. Additionally, leveraging economies of scope and scale to further enhance operational efficiency and competitiveness.
III. Expanding product diversification and market reach in anticipation of potential commoditization while transitioning towards a more business-to-business model.

4.3 ALPHA'S MANAGERIAL TENSIONS.

Throughout the BMI process, MTs have emerged as both driving and moderating forces. At the macro-level, these tensions pertain to scale, scope, and speed of action, all necessary for a global strategy. These macro-tensions give rise to a series of micro-tensions where the DCs adopted by management have been pivotal in addressing these tensions, capitalizing on interdependencies and the layering of competencies from successive BMI activities.

The moderating effect of MTs on BMI output occurs through the mediating effect of DCs acquired by management during each round of BMI. This has led to a heightened rate of innovation, bolstered by enhanced internal competency to dynamically adapt strategy and products to align with evolving market dynamics.

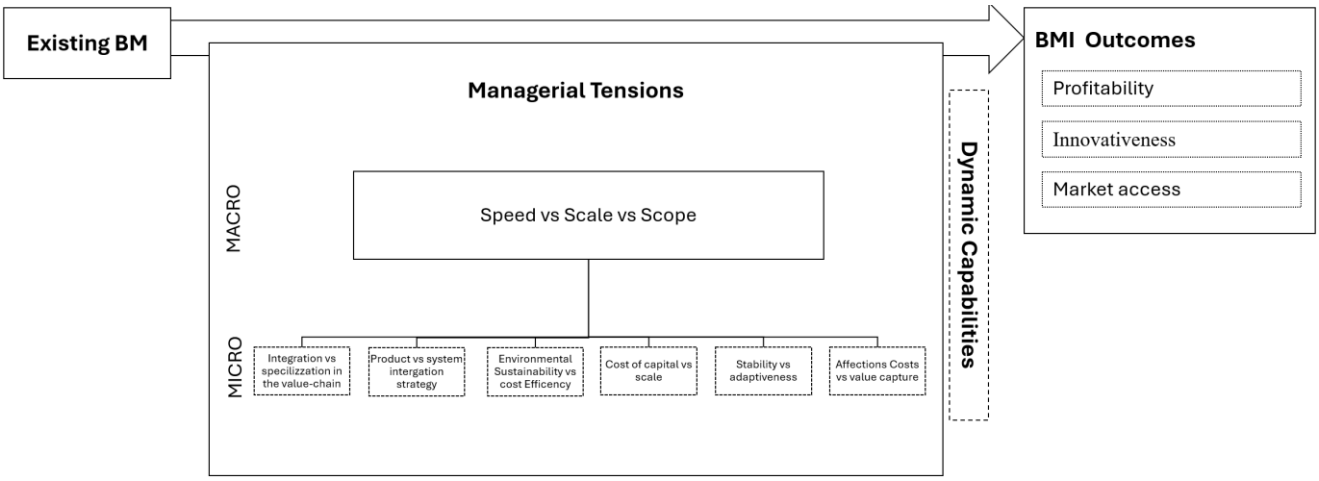

Figure 2. MTs as a moderating effect of BMI on its outcome

The following managerial tensions emerged during the growth phase of Alpha:

- **Integration vs specialization in the value-chain**.
  - **Description:** The needs to diversify the supply chain, especially for battery procurement from China, presented challenges due to the company's smaller scale compared to global competitors and automotive manufacturers.
  - **Data source:** Observational and historical data demonstrate that Alpha Energy has significantly bolstered its level of vertical integration across various strategic domains, encompassing both hardware and software.
  - **Solution**: strategic allocation of resources, selected not solely for their economic benefits but also for the synergy across the scopes of Alpha Group. This move aimed to secure cost and technical advantages critical for gaining a competitive advantage, which has been leveraged by both Alpha1 and Alpha2.
- **Product vs system integration strategy.**
  - **Description:** Alpha faced a paradoxical condition of enhancing customer loyalty and gaining a technical and cost advantage but encountered limitations in selling proprietary products due to the presence of established alternatives in mature markets.
  - **Data source:** The Group CEO acknowledges that "*Storage (energy) and V2G technologies are moving towards commoditization, limiting the ability to capture value*".
  - **Solution**: repositioning, from system integrators to product strategies and subsequently from B2B to B2C, was triggered by the identification of an external threat that, however, required to build trust into the customer by creating a product that was competitive with those already on the market.
- **Environmental Sustainability vs cost Efficiency**.
  - **Description:** Compliance with sustainability regulation raises costs for the company (e.g., modern slavery and conflict minerals).
  - **Data source:** As restated by the Head of Sustainability, "*It is necessary to ensure that all of our suppliers meet standards (i.e. sustainability) in order to avoid potential scandals or ethical violations [...] the possibility*

of having to drop a non-compliant supplier raises the issue of the risk of not being able to meet demand, involving sensitive strategic decisions.".
    - **Solution**: the firm established a series of standard operational procedures to assure the sustainability requirement at the lowest operational costs.
- **Cost of capital vs scale**.
    - **Description:** Financing constraints hinder global expansion, necessitating strategic decisions and managerial constraints for young companies that require substantial investments.
    - **Data source:** The Gorup CEO reported, "*the company undertook in 2021 a massive 200 MWh battery storage installation project in Australia, such projects required heavy investment, local market knowledge, and sub-contractors to support Alpha in the hands-on activities. Finance represents the necessary challenge to give adequate sustain to industrial operations and support the strategy (i.e. Alpha2 Network)*".
    - **Solution**: the firm leveraged the economies of scope among its products to minimize the impact of R&D costs and secured financing through multiple rounds of extraordinary financing among its shareholders.
- **Stability vs adaptiveness**.
    - **Description:** Alpha had to reconfigure the corporate organization to align the R&D department with product and market intelligence to ensure the delivery of products closely aligned with demand.
    - **Data source:** Observational and historical data gathered within the company revealed that the company's youthfulness led to a misalignment between the resources allocated to R&D and the market demand.
    - **Solution:** reconfiguration of resources through the implementation of an office with both technical and commercial competencies that would be able to understand the market trajectory and translate it into input for the R&D Department.
- **Affections Costs vs value capture**:
    - **Description:** The tension between management's emotional attachment and the potential sale of the company to a buyer capable of driving its success.
    - **Data source:** Observational and historical data obtained within the company reveal a strategic decision wherein the company divested a majority of its shares to prominent market entities, facilitating access to critical partnerships and direct supply channels within the Asian market.
    - **Solution:** a shift towards proactive engagement, prioritizing the proactive seizing of market opportunities over passive observation.

5. CONCLUSIONS AND DISCUSSIONS

Our study makes significant theoretical and practical contributions by documenting micro-level tensions inherent BMI efforts within the energy storage solutions market. We find that these tensions, particularly in markets requiring cross-industry innovation, present challenges that are more effectively addressed by new entrants due to their superior DCs. Furthermore, we illustrate the influence of MTs on BMI outcomes and propose potential solutions for navigating these tensions.

Our research demonstrates that DCs can be enhanced and acquired through iterative rounds of BM changes and restructuring. This iterative process enables firms to achieve market equilibrium and acquire the necessary capabilities to innovate and adapt their offerings dynamically, to meet market demand. While each successful round of BMI has not permanently resolved organizational challenges, they have contributed to increased organizational flexibility and enhanced managerial DCs. Instead of internalizing competencies from other sectors, the focus has been on learning how to maintain a leading position through continuous innovation. Managing paradoxical conditions has positively influenced BMI outcomes for instance facilitating entry into new markets and improving innovation cycles to align products closer with market demand.

Nonetheless, the case is not without limitation. The reliance on a single case study limits the generalizability of the results, obscuring the full complexity of the phenomenon. Future research could mitigate this limitation through multiple case studies, in similar or different industries, for broader generalizability.

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