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Entrepreneurial Marketing: Essays on the Scientific Development and the Integration of Predictive and Non-predictive Decision-making in Startup Firms

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To mom.

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Abstract

Startups are critical for driving innovation and economic development, as well as bringing novel products and services to market. Considering their vast importance, understanding the factors that enhance their performance and support their growth is essential. Generally, entrepreneurship and marketing thought have developed separately, each contributing valuable insights to business development and outcomes. As early as the 1980s though, we had indications of the complementarity of these research fields, accompanied by calls for more integrated approaches. Entrepreneurial marketing (EM) emerged from this interface, with particular relevance for small, resource-constrained companies. As the EM domain has developed into an independent research field, it has offered unique insights for firms facing competitive environments and turbulent conditions. With this cumulative dissertation, I aim to provide an in-depth literature review of recent advances pertaining to EM in and by startups, with a particular focus on identifying factors that can effectively support performance and foster growth.

Such a cumulative approach is critical, because the inherently multidisciplinary nature of EM has led to fragmentation across various theories, approaches, and research objects. Accordingly, the first aim of this dissertation is to contribute to the development and consolidation of the EM field by providing a systematic literature review that captures the current state of research, then establishes a strong foundation for both the subsequent articles in this dissertation and further research. Reflecting the themes derived from this review, the second objective of this dissertation is to examine individual decision-making logics and strategic EM orientations in the context of startups, which have received limited attention to date, and to shed light on their pertinent influences on entrepreneurial performance.

This dissertation presents three interconnected studies that reflect my attempts to achieve these research objectives. The first study offers a systematic literature review of EM by analyzing 207 peer-reviewed journal articles published between 2010 and 2021. This review consolidates the fragmented research landscape by categorizing EM according to three perspectives: entrepreneur, business, and market. A combination of descriptive and inductive thematic analyses highlights essential themes and offers a critical assessment that identifies avenues for future research. This comprehensive review thus extends prior narrative and bibliometric analyses and supports ongoing work in EM. The insights that it reveals from the entrepreneur’s perspective are particularly relevant, in that they identify effectuation as a suitable theory for EM research. The business perspective also reveals gaps in

conceptualizations of strategic EM dimensions and the need to integrate examinations that involve startup firms.

The second study then explores how decision-making logics, and specifically the application of non-predictive (effectual) and predictive (causal) principles, can shape entrepreneurial actions. On the basis of 12 semi-structured interviews with startup founders and founder associates in Germany, this study uncovers distinct patterns in EM. Namely, a causation logic dominates but is complemented by effectual reasoning. The third study instead uses a quantitative approach to examine various effects of the chosen decision-making logic and strategic orientation on firm outcomes. A proposed model, linking effectuation, causation, and EM, addresses a gap in extant understanding of how entrepreneurial behavior affects startup performance. Data from 148 founders in various industries reveals that EM is a critical mediator, with direct and indirect effects on enhanced firm outcomes and growth. By integrating a systematic literature analysis with both qualitative and quantitative evidence, this cumulative dissertation advances theoretical understanding and practical applications of EM; the insights contribute to literature on entrepreneurial decision-making and strategic orientation, particularly among growth-oriented new ventures.

1. General introduction

1.1 Background

"*If entrepreneurship is the soul of a business, marketing is the flesh*."

(Lam and Haker 2015, p. 341)

The development of marketing and entrepreneurship as research disciplines proceeded largely independently. Traditional marketing research focused primarily on large corporations and overlooked smaller, entrepreneurial firms (Hills et al., 2008; Hultman and Hills, 2011)—a tendency that is still evident in marketing management textbooks that allocate little space or attention to young, innovative companies (e.g., Kotler et al., 2019). Yet even early on, researchers recognized similarities between these disciplines, in that both aim to address complex business environments and foster value creation (Collinson and Shaw, 2001). As Hills and LaForge (1992) emphasize, marketing and entrepreneurship focus on customer needs, share cross-functional activities, engage extensively with their surroundings, and demonstrate an ability to manage risk and uncertainty. The disciplines also feature complementary alignments, in the sense that research has confirmed a positive relationship between entrepreneurial and market orientations (Boso et al., 2013; Morris and Paul, 1987; Miles and Arnold, 1991).

The importance of marketing for developing startups also was recognized and discussed in entrepreneurship research conferences as early as the 1980s (Hills, 1984). Carson (1985) observed that small businesses often have scarce resources for marketing activities and little influence over the market. In addition to their liabilities of smallness and newness, young firms are often unknown, enjoy limited trust, have few partnerships, and are still in the process of building internal structures (Aldrich and Auster, 1986; Gruber, 2004). Hills et al. (2008) emphasize further challenges at the individual level, including limited specialized management skills among entrepreneurs and the need to make decisions with less information than larger firms have. More recent empirical research supports these notions and specifies the lack of a marketing strategy, limited market knowledge, and an inability to deliver the right offering at the right time as key failure factors for startups (Cantamessa et al., 2018). As Fürst et al. (2023) accentuate, marketing activities in startups are essential for their survival and success.

Considering the overlap between disciplines and the distinct marketing challenges for resource-constrained, small, and new firms, various alternative interpretations of the marketing–entrepreneurship interface have developed (Hansen et al., 2020; Miles et al., 2015). Heterogeneity in this rapidly expanding research field in turn has led to the emergence of

diverse definitions of entrepreneurial marketing (EM), along with multiple frameworks and perspectives, occasionally resulting in scholarly ambiguity (Alqahtani and Uslay, 2020; Kraus et al., 2012; Solé, 2013). Just considering the available definitions for example, they range from a narrow understanding focused exclusively on small firms (Bjerke and Hultman, 2002) to an entrepreneurial approach in marketing that broadens the definition posed by the American Marketing Association (Kraus et al., 2010). In their influential article, Morris et al. (2002) propose an initial, comprehensive, conceptual framework, along with a widely adopted definition of EM as "*the proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging, and value creation*" (p. 5). They link seven dimensions—proactiveness, innovativeness, risk management, customer intensity, opportunity focus, resource leveraging, and value creation—and describe them as particularly relevant in uncertain environments or under resource constraints. Furthermore, they describe EM as a construct that operates on both strategic and operational levels.

Even if some researchers caution that EM remains theoretically underdeveloped and fragmented (Ioniță, 2012; O'Cass and Morrish, 2016; Most et al., 2018), broad agreement within the domain highlights the central role of the entrepreneur (Collinson and Shaw, 2011; Gilmore, 2011; Kraus et al., 2010; Morrish, 2011). In this view, the distinction between managers and entrepreneurs is key (Busenitz and Barney, 1997; Keane et al., 2018; Stewart and Roth, 2001), as is evident in their marketing practices (Fillis, 2010; Franco et al., 2014). This distinction also marks a critical departure from traditional marketing, typically practiced by managers, and establishes a unique foundation for EM and for an understanding of how entrepreneurial behavior shapes marketing strategies and tactics (Hills and Hultman, 2011b). Through the entrepreneur's influence, EM can offset some inherent disadvantages, in that it prioritizes a dynamic, innovative, creative, flexible, and customer-centric approach, in support of firms' survival (Hamzah et al., 2023; Maritz et al., 2010; Stokes, 2000a).

As Mueller et al. (2012) further highlight, in the early phase of startup development, the founder's behavior is decisive for navigating growth challenges, and entrepreneurial actions heavily center on marketing. In this context, Sarasvathy's (2001) effectuation logic offers a suitable framework for studying EM, as emphasized by Mauer and Grichnik (2011) and supported by Whalen et al. (2016). However, empirical evidence of EM behavior remains limited, specifically within startups (Breit and Volkmann, 2024); small and medium-sized enterprises (SMEs) provide the context for the majority of EM research (Bocconcelli et al.,

2018; Hills et al., 2008; Alqahtani and Uslay, 2020). This gap is surprising, given the vital role of new ventures in driving innovation and reshaping business landscapes and the substantial contributions of high-quality, growth-oriented startups to economic growth (Acs, 2006; Botelho et al., 2021; Shane, 2009; van Stel et al., 2005).

Over time, EM also has developed significantly. Contributions at the intersection of entrepreneurship and marketing appear in top journals, such as *Journal of Business Venturing*, *Entrepreneurship Theory and Practice*, and *Journal of Marketing*. A 2020 special issue of *Journal of Business Research*, alongside *Journal of Research in Marketing and Entrepreneurship*, was dedicated exclusively to EM, in support of its ongoing development and expansion. However, many areas within EM have yet to be explored, due to the diversity of approaches and research foci in this domain. Addressing some of these gaps can yield new theoretical and practical implications and further legitimize EM as a research field. Accordingly, this cumulative dissertation aims to showcase recent developments within the EM domain and also address key research gaps, using mixed methods, while also focusing explicitly on behavioral aspects of startup entrepreneurs and their strategic orientations.

1.2 Relevance and overall research aim

This dissertation is motivated by two primary aims. The first reflects a frequently cited quote from Low and MacMillan (1988), who assert that "*as a body of literature develops, it is useful to stop occasionally, take inventory of the work that has been done, and identify new directions and challenges for the future*" (p. 139). A condensed overview is critical for the heterogeneous, rapidly developing field of EM, which lacks unified definitions and encompasses diverse research perspectives (Alqahtani and Uslay, 2020; Hansen et al., 2020). The systematic literature review in Chapter 2 provides an up-to-date perspective on EM's development, synthesizing existing research and identifying gaps for further investigation. The insights from the review and identified gaps in turn inform the second research motivation.

The previously cited definition by Morris et al. (2002) links strategic dimensions derived from entrepreneurship and marketing disciplines. However, it does not address the relevance of the entrepreneur, in their central role, particularly in entrepreneurial ventures. It also does not specify contexts in which EM can be applied. The in-depth analysis reported in Chapter 2 reveals three broad research perspectives, linked to the entrepreneur, the business, and the market. It confirms that EM dimensions usually are applied according to a strategic business perspective, an approach that often neglects the influence of the entrepreneur (e.g., Buccieri et al. 2023; Fard and Amiri, 2018). The review also reveals the lack of any uniform

conceptualization regarding the number and measures of EM orientations (e.g., Jones et al., 2013a; Kilenthong et al., 2015). When adopting the entrepreneur's perspective, ample evidence underscores the importance of decision-making in EM, with a particular emphasis on the relevance of effectuation theory (Lingelbach et al., 2012; Crick and Crick, 2015). Addressing these gaps offers promising research opportunities at the intersection of individual and business perspectives, which could reveal how individual decision-making behavior influences the strategic orientation of EM.

Furthermore, EM studies usually prioritize SMEs, without addressing young firms like startups. Unlike small businesses, startups are defined by their newness and pursuit of innovative business models geared toward growth (Carland et al., 1984; Zott and Amit, 2007). This characterization is consistent with German entrepreneurship and startup research, which differentiates subsistence-based ventures from those founded on scalable business models (Kollmann et al., 2023). Reflecting the importance of startups for economic development and growth, Chapters 3 and 4 seek to address research gaps pertaining to founders' EM decision-making. They both integrate entrepreneur and business perspectives to examine startups' behavior, using qualitative and quantitative approaches. These efforts reflect the second principal research goal for this dissertation. The combined purposes and distinct studies thus contribute to theoretical consolidation and new empirical insights into the EM decision-making behaviors of startup founders. This overall aim also encompasses several specific research questions and objectives.

1.3 Research objectives and methodological approach

In accordance with the overarching aim to provide an in-depth literature review that highlights recent developments and identifies relevant research gaps in EM, while also dealing with some of the gaps through empirical research, the cumulative dissertation provides three articles. Each of them features focused research questions, designed to contribute to EM theory and practice. The first article summarizes the field's expansion and identifies research opportunities; the second and third studies incorporate novel theoretical and practical implications.

In detail, 'Recent developments in entrepreneurial marketing: systematic literature review, thematic analysis and research agenda' includes an extensive literature review of 207 scholarly contributions on EM and thereby tracks the development of the research field from 2010 to 2021. It extends beyond the initial research perspectives identified at the Charleston Summit (Hansen and Eggers, 2010), as well as beyond previous bibliometric analyses by

offering a thematic analysis (e.g., Miles et al., 2015; Kraus et al., 2012). In response to calls for comprehensive, systematic reviews (Hansen et al., 2020; Most et al., 2018), this study addresses three main research questions:

1. *How has entrepreneurial marketing developed in the past 12 years?*
2. *Which perspectives dominate entrepreneurial marketing research?*
3. *What are some emerging issues in entrepreneurial marketing, and what research is needed in the future?*

To address these research questions, the systematic review follows a three-stage approach recommended by Tranfield et al. (2003) and incorporates an inductive thematic analysis to complement the review process and reveal key themes (Braun and Clarke, 2006). By accounting for and integrating conceptual and empirical contributions to EM, it presents three central research perspectives, each of which can be divided further into subthemes. The findings in turn reveal the entrepreneur perspective—which identifies behavioral aspects as highly relevant in EM—and the business perspective—with its focus on EM strategy in SMEs—as particularly influential. However, these perspectives offer limited evidence specific to startup firms and rarely get connected in existing research, leaving a gap in understanding of their relationship.

The second article, 'Navigating startups: a qualitative exploration of causal and effectual decision-making in entrepreneurial marketing,' responds to this disconnect by integrating effectuation theory (Sarasvathy, 2001) with the dimensions of EM (Morris et al., 2002). Through 12 qualitative, semi-structured interviews, it considers the research question, '*How do causal and effectual behaviors influence EM decision-making in startups*?'

The third article builds on the concepts explored in the qualitative study, which offered initial insights into the relationship of effectuation and causation in the EM strategies of startup founders. The quantitative approach in 'Navigating the path to growth: effectuation, causation, and the mediating role of entrepreneurial marketing on startup performance' combines established measures of decision-making behavior (Chandler et al., 2011) with a newly proposed EM scale (Eggers et al., 2020). The results, obtained from a survey of 148 founders from Germany, provide new insights into *the impact of effectuation and causation on startup performance, with EM as a mediating factor*. The data analysis and hypotheses tests rely on correlations, multivariate regressions, and Hayes bootstrapping in R (Hayes, 2012), such that

this article specifies the direct and indirect effects of effectuation, causation, and EM on startup performance.

Together, these three articles (systematic literature review, qualitative exploration, and quantitative analysis) provide a structured examination of EM. In a methodological sense, each study contributes distinct insights through its unique approach. Consequently, this thesis offers novel theoretical and practical implications pertaining to the relationship among effectuation, causation, and EM orientation. These implications in turn advance understanding of the drivers of startup performance. By addressing gaps in extant EM research, this dissertation offers a fresh perspective on the strategic and behavioral determinants of founders' success.

1.4 Thesis structure

Reflecting a conventional format for cumulative dissertations, this submission comprises five chapters that present three interconnected scientific studies. The studies build on one another theoretically and contribute to the EM domain by embracing diverse research methods. The articles in Chapter 2–4 constitute the core of this dissertation; these self-contained articles can be read independently. But in addition, each chapter addresses sequential research questions on the theme, 'Entrepreneurial marketing: essays on the scientific development and the integration of predictive and non-predictive decision-making in startup firms.' Due to copyright restrictions, two of the three studies are not included in this printed version but can be accessed through the corresponding journal (ISSN 1471-5201).

Figure 1 presents the thesis structure. The current **Chapter 1** introduces the research field and its characteristics (section 1.1), followed by an outline of the overarching research aim and its relevance (section 1.2). Finally, this section presents the specific research objectives, questions, and methodological approach (section 1.3).

Chapter 2 presents the systematic literature review of EM, beginning with an overview of various research perspectives and justification for conducting the review (section 2.1). After detailing the methodological approach, including the planning and execution of the systematic search and analysis process (section 2.2), this chapter reports the findings, including a descriptive and thematic description of the EM field (section 2.3). It concludes with a summary, comprehensive research agenda, and key research questions (section 2.4). Chapter 2 was published in the Journal of Research in Marketing and Entrepreneurship (DOI: 10.1108/JRME-11-2022-0136).

Chapter 3 explores how causal and effectual behaviors influence EM decision-making in startups. Following an introduction emphasizing the importance of startups (section 3.1), the article outlines the core theoretical constructs of effectuation principles and EM dimensions, thereby establishing the rationale for their connection (section 3.2). Descriptive insights from the coding process are presented, followed by a thematic analysis of decision-making across specific EM dimensions (section 3.4). This chapter also provides notable theoretical and practical implications, with propositions developed accordingly (section 3.5). It ends with a discussion of limitations and an outlook for continued research (section 3.6). Chapter 3 was published in the Journal of Research in Marketing and Entrepreneurship (DOI: 10.1108/JRME-12-2023-0215).

After the introduction (section 4.1), **Chapter 4** outlines the theoretical foundation for the research model (section 4.2). The derivation of the hypotheses and the framework together postulate various direct and indirect effects involving decision-making, EM, and startup performance (section 4.3). In addition to describing the methodology (section 4.4), this chapter offers an empirical evaluation of the effects (section 4.5). The results suggest that EM is a relevant mediator among effectuation, causation, and startup performance, with theoretical and practical implications (section 4.6). The article concludes with a discussion of limitations, avenues for research, and a brief conclusion (sections 4.7 and 4.8).

Finally, **Chapter 5** summarizes the findings of all three articles (section 5.1), provides overall theoretical and practical implications for EM and decision-making research (section 5.2), and concludes with a discussion of limitations and opportunities for further research (section 5.3).

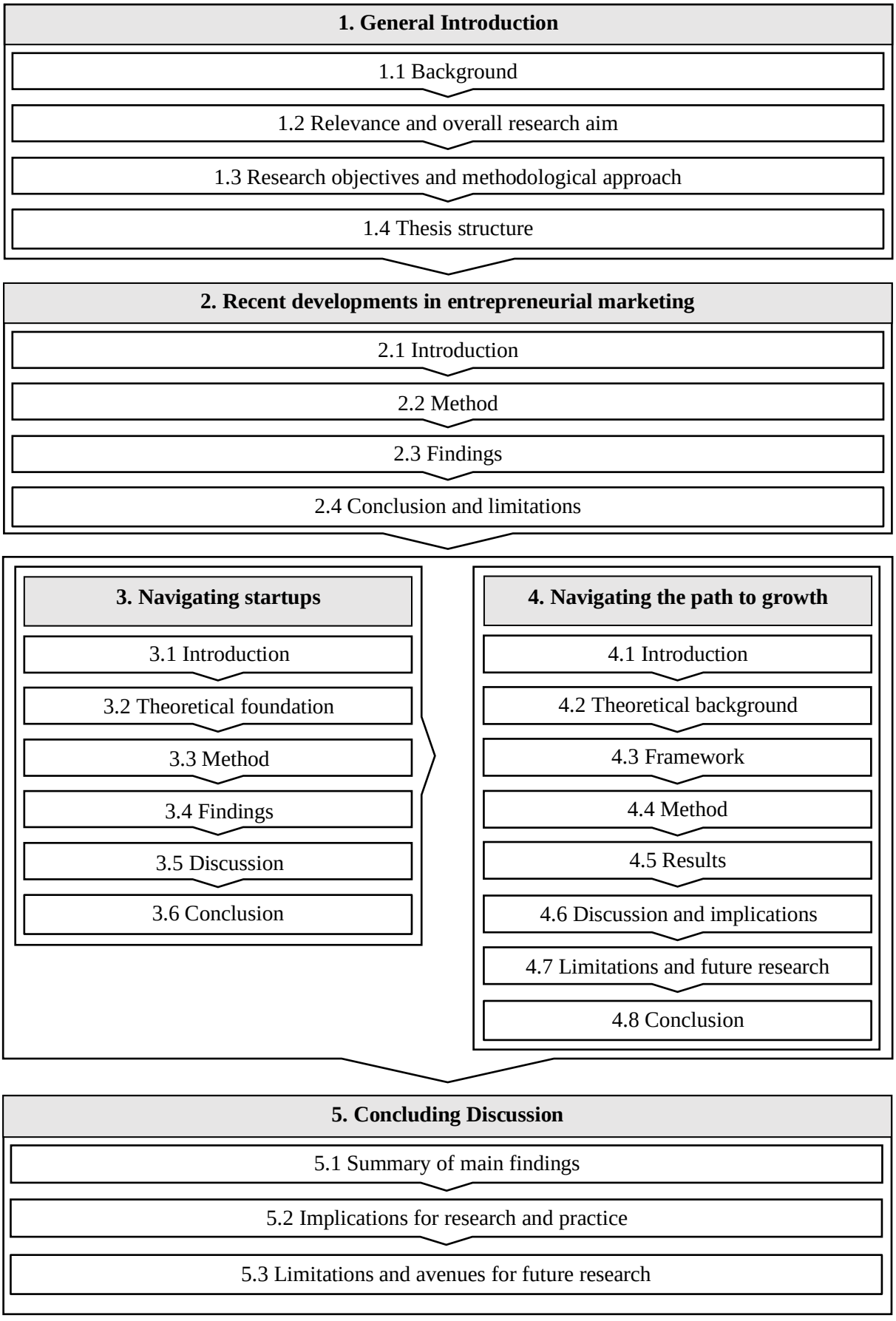

Figure 1. Thesis structure

Article 1

Recent developments in entrepreneurial marketing: systematic literature review, thematic analysis and research agenda

(full paper available online)

Authors:

Luca A. Breit (University of Wuppertal, Germany)

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Breit, L.A. and Volkmann, C.K. (2024), "Recent developments in entrepreneurial marketing: systematic literature review, thematic analysis and research agenda", Journal of Research in Marketing and Entrepreneurship, Vol. 26 No. 2, pp. 228–256. https://doi.org/10.1108/JRME-11-2022-0136.

2. Article 1 – Recent developments in entrepreneurial marketing: systematic literature review, thematic analysis and research agenda (full paper available online)

Abstract

Purpose: The developing field of entrepreneurial marketing reflects input from both marketing and entrepreneurship. Since the early 1980s, it has evolved heterogeneously, without a coherent theory, leading to complex scholarly views. Therefore, this literature review aims to shed light on the recent development, reveal various research perspectives related to entrepreneurial marketing, and derive future research avenues.

Design/methodology/approach: To account for recent scientific contributions and establish a more transparent view of divergent insights, the systematic literature review reported herein covers 207 peer-reviewed journal articles published after the "Charleston Summit" over 12 years (2010–2021) and details their contributions based on descriptive and inductive thematic analysis.

Findings: First, a descriptive analysis illustrates recent scientific developments indicating that entrepreneurial marketing is a vibrant research field with a continuous increase of publications worldwide and a wide range of research methods applied. Second, the thematic analysis suggests a three-part classification, into entrepreneur, business, and market perspectives. The authors present the most frequent themes and subthemes within this literature domain, as well as offering a critical assessment of the field that reveals key directions for expanding extant research.

Originality: This article is the first comprehensive review systematically examining entrepreneurial marketing literature while conducting an in-depth thematic analysis. It enhances current knowledge of the field by extending previous narrative and bibliographic reviews, and discusses research directions. Aside from specific research questions, an alternative way to narrow down the multiple research objects is elaborated by critically debating the perspectives.

Keywords: entrepreneurial marketing, systematic literature review, thematic analysis, research agenda

Article 2

Navigating startups: a qualitative exploration of causal and effectual decision-making in entrepreneurial marketing

(full paper available online)

Authors:

Luca A. Breit (University of Wuppertal, Germany)

Christine K. Volkmann (University of Wuppertal, Germany)

Citation:

Breit, L.A. and Volkmann, C.K. (2025), "Navigating start-ups: a qualitative exploration of causal and effectual decision-making in entrepreneurial marketing", Journal of Research in Marketing and Entrepreneurship, Vol. 27 No. 2, pp. 206-231. https://doi.org/10.1108/JRME-12-2023-0215.

3. Article 2 – Navigating startups: a qualitative exploration of causal and effectual decision-making in entrepreneurial marketing (full paper available online)

Abstract

Purpose – This study aims to enrich the field of entrepreneurial marketing (EM) by examining decision-making processes in the unique context of startup ventures. To do so, it extends research on the distinct EM dimensions to the behavioral context by revealing how causation and effectuation principles shape entrepreneurs' actions.

Design/methodology/approach – The study investigates EM behavior through 12 semi-structured interviews with 10 startup founders and two founder associates in Germany. Use of established frameworks of the EM dimensions and causation/effectuation principles paves the way for an in-depth analysis. This methodology uncovers a distinct pattern of decision-making behaviors characterizing various activities within startups.

Findings – The findings show that causal logic prevails in startups' EM, and effectual reasoning serves a complementary role. On the dimensional level, the findings reveal a predominant goal-driven focus in customer intensity and value creation processes. Predictive logic guides opportunity focus, proactiveness, and risk management, with non-predictive behaviors providing adaptability. The principle of affordable loss is also evident in risk management. Finally, startups exhibit a blend of causal and effectual logics in innovativeness and resource leveraging.

Originality – To the authors' knowledge, this study is the first to illuminate the interplay of behavioral logics in startup firms' EM by exploring the nuanced principles underpinning the decision-making processes of entrepreneurs. In doing so, it advances understanding of the marketing–entrepreneurship interface and enriches decision-making literature.

Keywords Entrepreneurial marketing, causation, effectuating, startup, semi-structured interviews

Article 3

Navigating the path to growth: effectuation, causation, and the mediating role of entrepreneurial marketing on startup performance

Author:

Luca A. Breit (University of Wuppertal, Germany)

This paper has been submitted for publication and is currently under review.

4. Article 3 – Navigating the path to growth: effectuation, causation, and the mediating role of entrepreneurial marketing on startup performance

Abstract

Startup founders navigate growth under uncertainty by using both predictive (causal) and non-predictive (effectual) decision-making. Simultaneously, these entrepreneurs must balance forward-driven versus reactive strategies for venture development. To clarify the indirect effects of effectuation and causation on firm performance, the current empirical study examines 148 startup founders in various industries in a large, open economy to inform the development of a model that links effectuation, causation, and entrepreneurial marketing with startup performance. The findings reveal direct and indirect pathways. Entrepreneurial marketing emerges as a critical mediating factor in the relationship between decision-making logic and startup outcomes, which ultimately enhances performance. This research expands literature on entrepreneurial decision-making and strategic orientation in growth-oriented new ventures, offering theoretical insights into the processes that drive startup performance, as well as practical implications for navigating uncertain business environments.

Keywords: strategic decision-making, effectuation, causation, entrepreneurial marketing, startups, firm performance

4.1 Introduction

Decision-making is fundamental to entrepreneurship and the capacity of founders and entrepreneurs to create new ventures and transform markets (Fischer and Reuber, 2011; Shepherd et al., 2015). Despite their various liabilities, including their initial lack of experience, scarce resources, and small size, startups and their entrepreneurs drive innovation and reshape economic landscapes (Acs, 2006; Botelho et al., 2021). High-quality, growth-oriented startups also can contribute significantly to economic growth (Shane, 2009). Yet entrepreneurial decisions take place under severe uncertainty, ambiguous environmental influences, and alternating individual preferences (Matalamäki, 2017), suggesting the relevance of an effectuation approach that enables entrepreneurs to leverage existing means, form various partnerships, and remain adaptable to changing circumstances, all while basing their decisions on assessments of affordable losses (Read and Sarasvathy, 2005).

In an influential article, Sarasvathy (2001) contrasts a predictive, plannable business approach in stable environments with a non-predictive logic grounded in the flexible use of available resources, which is more appropriate in a dynamic context. Unlike the effectuation logic, a causal approach entails following predetermined business objectives to achieve expected returns, conducting intensive market and competition analyses, and viewing unforeseen events as threats (Reymen et al., 2015). These prior considerations suggest that both predictive and non-predictive behaviors can be useful when studying growth-oriented startups (Anagnou et al., 2019; Yu et al., 2024).

Accordingly, joint empirical investigations of effectuation and causation generally acknowledge that both decision logics can enhance business outcomes (Braun and Sieger, 2021; Zhang et al., 2023). Some early studies tended to view the decision logics as mutually exclusive (Brettel et al., 2012; Dew et al., 2009), but more recent perspectives indicate that their combination is beneficial for firms (Galkina and Jack, 2022; Jiang and Rüling, 2019; Pöschl, 2022). The current study reflects that view—namely, even if they differ fundamentally, both decision-making approaches can be applied simultaneously by startups (Frese et al., 2020).

In addition to decision-making approaches embraced by individual entrepreneurs, the firm-level strategy determines business performance and innovation too (Deutscher et al., 2016; Zhou et al., 2005). Blending entrepreneurial and market-related orientations appears particularly relevant for smaller companies (Baker and Sinkula, 2009), as manifested in the concept of entrepreneurial marketing (EM) and the comprehensive framework it offers (Miles et al., 2015; Morris et al., 2002). Research dedicated to understanding marketing in an

entrepreneurial context acknowledges the uncertainty, competitive market environment, and turbulent conditions (Kraus et al., 2010) and also confirms that EM dimensions facilitate firm performance (Alqahtani et al., 2022; Sadiku-Dushi et al., 2019). Because decision-making influences firms' strategic orientation (Cowden et al., 2024; Seronato and Martins, 2024), the current study seeks to account for both, by examining startup founders' behaviors and EM orientation and by specifying how these combined factors affect firm performance.

Prior studies of the influences of effectuation and causation on business outcomes offer quantitative data related to internationalizing firms (Chetty et al., 2024), small and medium-sized enterprises (SME) (Alzamora-Ruiz et al., 2021), and new ventures (Table 2). Startups are distinct from all these categories; they represent a subtype of new firms, characterized by innovative business models and high growth ambitions (Jo and Jang, 2022). The effectuation logic initially emerged from efforts to create new markets, suggesting that it also might have performance effects on startup firms pursuing innovation, though limited research addresses this possibility. For example, Laskovaia et al. (2017), Shirokova et al. (2021), and Smolka et al. (2018) all focus on student entrepreneurs, which typically represent micro-enterprises. Some studies consider emerging markets, such as China (Peng et al., 2020; Yang et al., 2021) and Ghana (Lanivich et al., 2023), or else focus on specific industries, like technology-based firms (Guo et al., 2016; Ruiz-Jiménez et al., 2021). Limited evidence pertains to growth-oriented startups, so to address this gap, the current study investigates decision-making by startup founders, across diverse industries.

Table 1. Quantitative studies of effectuation, causation, and performance in new ventures, Source: Author

Authors	Research Objective	Independent Variables	Moderator/ Mediator	Dependent Variable	Sample	Key Findings
Guo et al. (2016)	Test how effectuation and causation impact new internet venture growth through resource bundling	Effectuation, causation	Mediators: Pioneering and stabilizing resource bundling	New internet venture growth (growth speed of sales, new employees, market shares)	118 new internet ventures, China, 3.5 years mean firm age	Effectuation and causation relate positively to new internet venture growth. Effectuation positively affects growth through pioneering resource bundling, but causation affects growth by stabilizing resource bundling.
Laskovaia et al. (2017)	Investigate how national culture influences new venture performance through effectuation and causation	Performance-based culture, socially supportive culture	Mediators: Effectuation, causation	New venture performance (growth of sales, market share, profit)	3,411 student entrepreneurs, 24 countries, 2.3 years mean firm age	Effectuation and causation positively affect new venture performance, but causation has a stronger relationship. Effectuation partially mediates the relationship between socially supportive cultures and performance. Causation partially mediates the relationship between performance-based cultures and performance.
Smolka et al. (2018)	Examine the synergistic effects of causation and effectuation on venture performance	Effectuation, causation	None	Venture performance (development of sales, market share, profit)	1,453 student entrepreneurs, 25 countries, 5.9 years mean firm age	Causation and effectuation relate positively to venture performance, but causation has a more substantial impact. Precommitment and flexibility positively influence performance; affordable loss has a negative effect. Combining causation and effectuation has a synergistic effect. The interaction of causation and experimentation yields significant results.
Peng et al. (2020)	Explore the nonlinear effects of effectuation and causation on new venture performance and the moderating effect of environmental uncertainty	Effectuation, causation	Moderator: Environmental uncertainty	New venture performance (growth of scale, income, new business, competitive position)	407 new ventures, China, 2.7 years mean firm age	A J-shaped curvilinear curve reflects the interplay of effectuation and new venture performance. An inverted U-shaped relationship exists between causation and performance. Environmental uncertainty positively moderates the effectuation–performance relationship and negatively moderates the causation–performance relationship.

Table 2. continued

Authors	Research Objective	Independent Variables	Moderator/ Mediator	Dependent Variable	Sample	Key Findings
Yang et al. (2021)	Analyze the mediating roles of effectuation and causation in the relationships of resource combination activities, new venture growth, and gender (moderating role)	Resource combination activities	Mediators: Effectuation, causation Moderator: Gender	New venture growth (growth in sales, net profit, employees, market share, productivity)	250 new ventures, China, firm age < 10 years	Effectuation positively mediates the relationship between resource combination activities and new venture growth; causation negatively mediates this relationship. Gender moderates these effects: Female entrepreneurs strengthen the positive impact of effectuation, and male entrepreneurs reducing the negative impact of causation.
Ruiz-Jiménez et al. (2021)	Evaluate the roles of effectuation and causation in new venture performance for novice and expert entrepreneurs and how resources moderate the effects	Effectuation, causation	Moderator: Resource availability	Performance (return on investment, equity, growth in customer, sales, employment)	178 new technology-based firms, Spain, mean firm age: 3.9 years	Effectuation positively affects new venture performance for novice and expert entrepreneurs. Causation positively influences performance for expert entrepreneurs. Resources positively moderate the relationship of causation and performance in expert-founded ventures but negatively moderates the relationship of effectuation and performance in novice-founded ventures.
Shirokova et al. (2021)	Assess the moderating role of institutions on the relationships of causation, effectuation, and firm performance	Effectuation, causation	Moderation: Regulatory, normative, and cultural-cognitive institutions	Firm performance (growth in sales, profits, market share)	4,066 student entrepreneurs, 24 countries, mean firm age: 3.5 years	Causation and effectuation enhance firm performance. Causation is more effective in countries with well-developed financial systems and entrepreneurial skills, and effectuation is more useful in countries with underdeveloped financial systems and weaker entrepreneurial skills.
Zhang et al. (2021)	Investigate how network mechanisms mediate the relationships of effectuation, causation, and entrepreneurial performance	Effectuation, causation	Mediators: Network heterogeneity, shared goal	Entrepreneurial performance (financial, growth, innovation performance)	209 new ventures, China, mean firm age: 3.2 years	Effectuation and causation directly and positively affect performance. Network heterogeneity partially mediates the effect of effectuation, and shared goals partially mediate the effect of causation on performance; they also moderate the relationship of network heterogeneity and performance.

Table 2. continued

Authors	Research Objective	Independent Variables	Moderator/ Mediator	Dependent Variable	Sample	Key Findings
Kamble et al. (2023)	Analyze how design thinking influences effectuation and causation and how both decision-making logics affect venture performance, while also exploring the mediating role of digital capabilities	Effectuation, causation Antecedent: Design thinking	Mediator: Digital capabilities	Venture performance (return on investment, equity, growth in customer, sales, employee)	291 platform-based startups, India, mean entrepreneurial experience of founders: 3.8 years	Effectuation and causation enhance venture performance; design thinking practices influence decision-making logic. Effectuation and causation also positively affect performance through the mediation of digital capabilities.
Lanivich et al. (2023)	Examine how founders' cognitive styles influence venture performance through decision-making and resource orchestration	Cognitive styles (knowing, planning, creating)	Mediators: causation, effectuation, bricolage, bootstrapping	Firm performance (growth of sales, revenues, net income, return on sales, assets)	260 new ventures, Ghana, mean firm age: 4.7 years	Cognitive styles influence venture performance indirectly, by applying decision-making logic and resource orchestration strategies. Founders with knowing and planning styles align more with causation and bootstrapping; founders with creating styles align more with effectuation and bricolage.

Notes: To identify these studies, the search terms included keywords related to the research objective, namely, examining the relationships of effectuation, causation, and performance or growth in new ventures, entrepreneurial firms, and startups. The search was conducted on the Scopus database, and abstracts and methods were reviewed to ensure the focus on new firms.

In research into the indirect influences on new venture outcomes, a common focus highlights the use and expansion of resources. For example, some scholars argue that integrating various management concepts into studies of predictive and non-predictive logics is needed to expand the effectuation domain (Perry et al., 2012). Grégoire and Cherchem (2020) call for attempts to explain "*why some moderator or mediating variable might accelerate/enable this particular* [*performance*] *advantage*" (p. 634). Whereas research has incorporated the effects of entrepreneurial (Palmié et al., 2019) and market (Taghvaee and Talebi, 2023) orientations in decision-making, no studies address both decision logics, strategic orientations, and firm performance together in an entrepreneurial context.

Finally, in studies of the suitability of an effectuation logic, within the comprehensive EM concept (Hansen et al., 2020; Hills and Hultman, 2011a), Whalen et al. (2016) assert that both frameworks, which center around the entrepreneur, are particularly relevant in uncertain conditions. According to Alqahtani and Uslay (2020), effectuation demonstrates how EM gets executed. In their literature review, Breit and Volkmann (2024) reveal that EM research frequently provides empirical evidence in support of the suitability of effectual behavior, leading them to advocate for a joint investigation of decision-making and EM orientation. With a qualitative study, these same authors show that both effectual and causal behavior influence EM dimensions in growth-oriented startups (Breit and Volkmann, 2025).

In addition to introducing EM as a mediator in decision-making research, this study pursues multiple other objectives. By exploring the impact of startup founders' effectuation and causation behaviors on firm performance, this study aims to establish whether predictive and non-predictive logics can be precursors to EM, by testing for EM's mediating role between decision-making styles and firm performance. In detail, the reported study tests a newly developed EM scale in an entrepreneurial setting (Eggers et al., 2020). The results expand understanding of the strategic decision-making behaviors of startup founders by examining both direct and indirect effects on performance. As they show, only causation directly enhances firm performance, and incorporating EM as a mediator helps elucidate the positive impacts of both decision-making styles on startup outcomes. Finally, this study substantiates the significant role of EM for enhancing firm performance.

4.2 Theoretical background

4.2.1 Causation and effectuation

Classical economic theory has been criticized for its assumption that decision-makers are perfectly rational and make decisions based on complete information (Simon, 1979). For example, it defines strategic action according to the formulation of a detailed plan, designed in advance and with clear intent (Mintzberg, 1978). In contrast, the complexity of entrepreneurial decisions, the variety of individual and environmental influences, and their dynamism over the business life cycle all challenge the very significance of formal business planning (Shepherd et al., 2015). In uncertain situations, planning generally proves inadequate, suggesting the need for a more adaptive, experimental approach (Alvarez and Barney, 2005).

Sarasvathy (2001) uses "effectuation" to refer to decision-making undertaken while creating new ventures, a process that features high uncertainty, ambiguous environmental factors, and unknown and unpredictable future market conditions. Because future outcomes cannot be forecasted, entrepreneurs must base their decision-making on experimental learning and controllable actions (Fisher, 2012). Effectual decision-makers ask, "Who am I, what do I know, and whom do I know?" Then they align their actions with their own individual means. Simultaneously, they adapt to unforeseen circumstances, such as by forming collaborative partnerships to exploit contingencies and relying on existing resources that can afford to be lost if needed (Sarasvathy, 2022).

In contrast, a traditional causal logic requires the assumption of a stable environment, in which predictions about future outcomes are feasible (Dew et al., 2009). Consistent settings allow entrepreneurs to establish predefined goals, based on extensive market research, and develop detailed plans (Brettel et al., 2012). In such a setting, entrepreneurs can deliberately select specific means to achieve predetermined effects, guided by explicit expectations. Any deviations from this plan are undesirable, so decision-makers actively work to minimize them. Causal decisions about resource commitments are contingent on their anticipated return, assessed relative to the potential risks (Read and Sarasvathy, 2005).

From the outset, Sarasvathy (2001) emphasized that effectuation and causation can work complementarily. Various empirical studies document their coexistence in entrepreneurial contexts, including during new product and venture creation (Galkina et al., 2022; Sitoh et al., 2014), in startups (Frese et al., 2020; Rudeloff et al., 2022), and in companies seeking growth through internationalization (Chetty et al., 2024; Yang and Gabrielsson, 2017). That is, both predictive and non-predictive logics can occur simultaneously, though their frequency may vary

depending on the growth phase or salient challenges (Khurana et al., 2022; Reymen et al., 2015).

In turn, investigating the influences of a non-predictive logic can help clarify the direction of its effects (Arend et al., 2015). Doing so also requires examining potential moderating and mediating variables that might determine precisely how effectuation and causation affect business performance (Grégoire and Cherchem, 2020). Entrepreneurs shape the company's orientations, through their reasoning patterns (Lanivich et al., 2023), so viewing effectuation and causation as likely antecedents of the firm's marketing strategy seems appropriate (Morrish, 2011). In support of such efforts, EM provides a relevant, comprehensive framework for predicting actions adopted by startups.

4.2.2 Entrepreneurial marketing

Research on the entrepreneurship–marketing interface largely was sparked by recognition of the importance of marketing for young, growing companies (Hills, 1984) and evidence of positive relationships between entrepreneurial and market orientations (Morris and Paul, 1987). Around the same time, Carson (1985) highlighted the challenges that small businesses face, due to their limited resources for marketing, scarce knowledge, and weak influence on markets. Notably, insufficient market insights, poor market timing, and inadequate marketing strategies also contribute to startup failures (Cantamessa et al., 2018), such that the collective evidence identifies marketing activities by young firms as essential for their survival and success (Fürst et al., (2023).

However, EM research has been characterized by heterogeneity and various research perspectives, reflecting input from marketing, entrepreneurship, SME marketing, and marketing in entrepreneurial contexts (Hansen et al., 2020). Morris et al. (2002) propose a comprehensive, conceptual EM framework by integrating insights from entrepreneurship and marketing literature, such that they identify seven dimensions (proactiveness, innovativeness, risk management, customer intensity, opportunity focus, resource leveraging, and value creation) that are particularly appropriate in times "*of change, complexity, chaos, contradiction, and diminishing resources*" (p.5). They also describe EM as a construct that operates on strategic and operational levels.

Even if EM can be applied in companies of any size (Alqahtani et al., 2022), it may be particularly well-suited to new ventures and startups, with their challenging conditions and limited resources (Bachmann et al., 2021; Breit and Volkmann, 2025). Furthermore, the central

role of the entrepreneur aligns with EM, because founders powerfully influence marketing directions (Morrish et al., 2010; Zontanos and Anderson, 2004). In this sense, EM addresses the criticism that traditional marketing approaches, primarily developed by and for large corporations, cannot benefit entrepreneurial firms (Hills et al., 2008). An EM approach should be particularly appropriate for revealing startups' strategic orientation, addressing the liabilities of newness and smallness, and facilitating growth and business performance (Gruber, 2004).

Eggers et al. (2020) provide a validated EM scale with six subdimensions, reflecting SME contexts. Their conceptualization aligns with Morris et al.'s (2002) but combines value creation with the drive for opportunities. Specifically, they propose that *innovativeness* refers to a firm's tendency to support and engage in new ideas and creative processes that result in new offerings or technological developments (Becherer et al., 2012; Bouncken et al., 2015). *Proactiveness* denotes a forward-looking perspective, to anticipate future demands and act to shape the environment, by seizing opportunities before competitors can (Astuti and Balqiah, 2020; Lumpkin and Dess, 1996). The *risk-taking* dimension involves entrepreneurs' willingness to devote significant resources to opportunities, even if they have a reasonable chance of failure (Covin and Slevin, 1989; Eggers et al., 2020). These three subdimensions are adapted from the original entrepreneurial orientation scale by Covin and Slevin (1989).

Customer orientation emphasizes an understanding and satisfaction of customer needs, often by continually adapting to market demands (Slater and Narver, 1998). Through *resource leveraging*, the firm optimizes a restricted set of internal resources, which can mean expanding available resources and creatively integrating resources beyond its current control (Morris et al., 2002; Zahra, 2003). Finally, *market-driving* strategies aim to shape market structures instead of reacting to them, thereby changing market behaviors and competition (Jaworski et al., 2000; Kumar et al., 2000). These strategic dimensions imply that firms can benefit from an interplay of forward-thinking and reactive approaches (Eggers et al., 2013). Such a combination should enhance the performance of growth-oriented startups, by enabling them to be innovative and enter new markets while also establishing customer relations, even with their limited resources.

4.2.3 Linking decision-making logics and EM

Early marketing literature tended to focus on marketing instruments and consumer behavior, without considering firms' decision-makers (Wierenga, 2011). In contrast, entrepreneurship research defines the entrepreneur as the core actor, who takes risks, manages the company's resources, pursues opportunities, and is ultimately responsible for the business's

actions (Gedeon, 2010). In turn, decision-making emerges as the central task involved in building companies (Nouri et al., 2017). As Mueller et al. (2012) observe, entrepreneurial behavior is mainly marketing actions conducted during startup and growth phases. Therefore, the marketing capabilities of entrepreneurs strongly determine their firms' survival and growth (Joensuu-Salo et al., 2023; Patel et al., 2021). Entrepreneurship in marketing is crucial to the success of young companies (Jayawarna et al., 2014), and EM helps build marketing skills and foster firm performance (Gliga and Evers, 2023).

No unified theoretical foundation exists for investigating marketing in an entrepreneurial context though (Amjad et al., 2023), prompting Hills and Hultman (2011a) to propose that an effectuation logic offers a suitable basis for researching EM and explaining how new products and services come to market. Whalen et al. (2016) agree that effectuation deserves more research attention, due to its ability to explain opportunity generation through dynamic and iterative procedures. Moreover, effectual behaviors can reveal how resources get leveraged under uncertainty and when the focus shifts toward other actors, such as business partners (Alqahtani and Uslay, 2020). The connection between an effectuation logic and EM is founded in the relevance of the entrepreneur, due to the significance of founders and owner–managers in marketing processes (Stokes, 2000a). In reviewing different research perspectives on EM, Breit and Volkmann (2024) determine that the entrepreneur's characteristics, behaviors, and stakeholder interactions are key considerations in most studies.

Furthermore, effectuation literature emphasizes the importance of non-predictive behaviors in marketing. In a comparison of managers and experienced entrepreneurs, researchers find that in uncertain conditions, entrepreneurs are more likely to adopt an effectual logic in their marketing practices (Read et al., 2009a). Investigating new product development, Coviello and Joseph (2012) reveal that marketing capabilities are more likely to develop through an effectuation logic. Yet it still may be necessary to examine more strategic orientations, such as an entrepreneurial (Laskovaia et al., 2019), innovation (Roach et al., 2016), or market (Karami et al., 2023) orientation, in connection with decision-making. In an empirical study that links EM with effectuation, Mort et al. (2012) argue that non-predictive decision-making leads to superior performance in born-global firms, because it means they adopt a strategic approach that diverges from traditional marketing.

Finally, another set of studies rejects an exclusive focus on effectual reasoning and highlights the concomitant importance of causation in marketing (Mero et al., 2020; Shi and Miles, 2020). Crick and Crick (2015) identify varying levels of effectuation and causation in

their qualitative investigation of marketing planning by nascent firms. When Yang and Gabrielsson (2017) investigate predictive and non-predictive behaviors in EM dimensions, they determine that international new ventures tend to be more effectual but also exhibit some causal behavior. In contrast, among startups, causal behavior appears to dominate, and effectuation takes a complementary role (Breit and Volkmann, 2025). Building on these insights, the current study examines the direct and indirect effects of effectuation and causation, to determine if and how EM can transform predictive and non-predictive behaviors into firm performance.

4.3 Framework

Entrepreneurs' decision-making shapes their young firms' strategies. Effectuation, characterized by means-guided logic, and causation, defined by goal-driven approaches, represent two fundamental behavioral philosophies for their development (Villani et al., 2018). Furthermore, EM offers a comprehensive framework for integrating progressive and responsive strategic dimensions. Notably, effectuation, causation, and EM reflect overlapping theoretical assumptions, particularly regarding the central role of the entrepreneur and the implications of uncertainty, suggesting the potential benefits of addressing these concepts together. Moreover, predictive and non-predictive behaviors likely precede and influence the firm's strategic orientation (Jun et al., 2023; Kvitastein and Aarstad, 2019).

4.3.1 Effectuation, causation, and startup firm performance

In new firms, entrepreneurs' effectual and causal behaviors can be identified during the founding process (Pfeffer and Khan, 2018). With a longitudinal analysis of ventures, from idea to post-startup phase, Reymen et al. (2015) determine that both decision-making logics get applied simultaneously throughout venture development. They highlight the relevance of both structure-providing and flexible processes and reveal a tendency to shift from a more effectual to a more causal approach. However, effectual phases still arise in later stages of firm development, potentially due to the general decrease in uncertainty that occurs over the course of the business's development and increased experience with recurring challenges (An et al., 2020).

When they examine connections between effectuation-related principles and firm outcomes, Read et al., (2009b) propose that a means orientation, partnership formation, and leveraging contingencies all positively influence new venture performance. Chandler et al. (2011) also validate scales for effectuation and causation, adapted to new ventures. First, they characterize effectuation according to experimentation, flexibility, and affordable loss. Experimentation refers to a search for solutions through trial-and-error (Nicholls-Nixon et al.,

2000), which proves particularly useful for innovating without consuming excessive resources (Brown and Eisenhardt, 1997). Flexibility relates to entrepreneurs' ability to leave their current path and pursue new directions (Chandler et al., 2011). Such flexible action supports creative, adaptive responses to situations that are difficult to predict (Vera and Crossan, 2005). An affordable loss is bearable for the founders, even if they do not achieve the desired outcome (Sarasvathy, 2001). Innovative projects, subject to great uncertainty, are difficult to estimate due to a lack of expected values. However, the downside is often easier to assess because it depends on entrepreneurs' resource commitment and specified limits (Brettel et al., 2012). Second, Chandler et al. (2011) define causation as comprised of structured planning, featuring structured approaches and rule-governed processes for recognizing and pursuing entrepreneurial opportunities, and competitive market analysis, which implies detailed business planning and market observations. Multiple studies cite the positive influence of planning for small and new enterprises (Brinckmann and Hoegl, 2011; Burke et al., 2010). For example, Shane and Delmar (2004) determine that entrepreneurs who prepare a business plan before their market entry have a lower risk of failure, and Gruber (2007) identifies benefits of planning for the performance of newly established firms, even in rapidly changing, unpredictable business landscapes. A structured market analysis also can support the development of new ventures (Forlani and Mullins, 2000), and observing markets and competitors influences their survival prospects (Gartner et al., 1999). Thus, causation has persistent influences on new ventures (Faridian et al., (2024).

Quantitative investigations of effectuation and causation also affirm their positive effects on new venture performance (Laskovaia et al., 2017; Shirokova et al., 2021; Smolka et al., 2018), including the growth of new online businesses (Guo et al., (2016) and the development of platform-based startups in India (Kamble et al., 2023). In China, Peng et al. (2020) and Zhang et al. (2021) also offer evidence of the beneficial effects of predictive and non-predictive logics on entrepreneurial new ventures. Formally then,

H1: Effectuation positively influences startup firm performance.

H2: Causation positively influences startup firm performance.

4.3.2 Effectuation, causation, and EM

Insights into the potential direct relationships of predictive and non-predictive decision-making with EM are scarce. In a study of international new ventures in the high-tech sector, Yang and Gabrielsson (2017) argue that effectual behavior is evident in all EM dimensions,

whereas causation only arises for customer orientation, resource leveraging, and risk management. In turn, they advocate a non-predictive approach to product development but a combination of effectuation and causation for determining the marketing mix. When Breit and Volkmann (2025) investigate individual decision-making principles and EM, they find that startups primarily use goal-driven approaches to define their customer intensity, value creation, risk management, opportunity focus, and proactiveness, but the non-predictive logic underlies their strategic flexibility, and when it comes to innovativeness and resource leveraging, startups blend causal and effectual reasoning. Overall, causation appears more prominent among goal-oriented processes, whereas formal planning guides the strategic aspects of EM, such as identifying market opportunities and developing structured marketing approaches. With the assistance of systematic market research, customer engagement, and risk analysis, causal actions can ensure that the business development and marketing efforts align with the firm's objectives. At the same time, effectuation facilitates entrepreneurs' use of available means for innovation processes, enables flexible responses to market changes, and fosters trust-based partnerships that can enhance the resource base.

Examining individual dimensions can offer more detailed insights into the relationship of effectuation and causation with EM. An entrepreneurial orientation implies behaviors that contribute to implementing opportunities and market entry (Lumpkin and Dess, 1996), and in turn, Cherbib (2024) argues that the interplay of decision-making with an entrepreneurial orientation is crucial for overcoming challenging conditions. Then Laskovaia et al. (2019) and Palmié et al. (2019) show that an entrepreneurial orientation positively correlates with effectual and causal reasoning among SMEs. Predictive and non-predictive logics also influence the focus on customers; research indicates a positive relationship between decision-making logics and market orientation (Taghvaee and Talebi, 2023). Moreover, Karami et al. (2023) conclude that when entrepreneurs exhibit an effectuation logic, customer satisfaction is greater, and Kvitastein and Aarstad (2019) find that causation enhances market orientation among startups.

Both resource leveraging and market-driving are central facets of an effectuation logic, with the assumption that entrepreneurs focus on available resources and create new markets with committed partners (Sarasvathy, 2022). A marketing collaboration generally enables firms to achieve superior market results while minimizing their resource expenditures (Ramaswami et al., 2009). Kubberød et al. (2019) argue that effectual networking makes resources in the immediate environment of small businesses more accessible. For example, startup entrepreneurs can leverage their internal marketing expertise and employ cost-effective tactics

to allocate their limited resources and maximize the potential returns on their marketing spending (Breit and Volkmann, 2025). Classical management theory concurs that a strategic allocation of resources should lead to a competitive advantage for firms (Barney, 1991). Schindehutte et al. (2008) add that market-driving activities result from competition and co-creation through partnerships. Whereas Schweitzer et al. (2023) argue that effectuation can lead to competitive advantages in market-driving, Ghauri et al. (2016) propose goal-oriented strategies for driving the market, such as by building strong networks, distributing knowledge, and enhancing internal brand efforts. In turn,

H3: Effectuation positively influences startup firms' EM.

H4: Causation positively influences startup firms' EM.

4.3.3 EM and startup firm performance

As a strategy, EM can help entrepreneurial ventures navigate dynamic, evolving marketplaces. With case studies, Morrish and Deacon (2011) analyze the application of the seven EM dimensions, which leads them to identify approach as a success factor. Qualitative insights also indicate the presence of EM in small businesses, for which interwoven dimensions can be advantageous (Krisjanous and Carruthers, 2018; Kurgun et al., 2011). Finally, the seven EM dimensions have been observed in startups in a large, open economy (Breit and Volkmann, 2025).

Initial attempts to measure EM quantitatively (Becherer et al., 2012; Fiore et al., 2013) have faced criticisms, due to limitations in their development (Eggers et al., 2020). Still, the preponderance of evidence suggests that EM benefits SMEs' performance (Astuti and Balqiah, 2020; Sadiku-Dushi et al., 2019), seemingly because its foundational strategic orientation elements benefit firm performance. For example, studies reveal a positive effect of entrepreneurial orientation on outcomes attained by smaller firms (Keh et al., 2007; Wiklund and Shepherd, 2005) and new ventures (Stam and Elfring, 2008).

Advantages also accrue from employing both entrepreneurial and market orientations (Baker and Sinkula, 2009; Boso et al., 2013). An established construct for large firms, a market orientation is associated with positive impacts on business performance (Kirca et al., 2005). When it comes to market alignment in startups, Deshpandé et al. (2013) show that customer orientation increases profitability. For resource management, coordinating, bundling, and leveraging new resources can create customer value and produce competitive advantages (Sirmon et al., 2007); leveraging resources also can lead to better innovation outcomes

(Ostendorf et al., 2014). As Eggers et al. (2020) argue, recognizing entrepreneurial opportunities is insufficient without active market changes initiated by the firm. Therefore, using evidence from startups and established businesses, being market-driven seems likely to enhance firm performance (Stathakopoulos et al., 2022), leading to the following hypothesis:

H5: EM positively influences startup firm performance.

4.3.4 Decision-making, startup firm performance, and a mediating role of EM

The preceding hypotheses imply positive direct relationships among decision-making, EM, and startup firm performance. Furthermore, the firm's strategic orientation might function as a mediator, clarifying the mechanism by which effectuation and causation influence outcomes. Integrating such mediating variables can provide a deeper understanding of effectuation and causation; thus far, few mediation analyses examine firm performance with decision-making as an independent variable.

Evidence in support of integrating the strategic elements comes from Cai et al. (2017), who suggest that an exploratory learning orientation mediates the relationship between new venture performance and effectuation. Furthermore, Palmié et al. (2019) argue that effectuation and causation relate to entrepreneurial orientation, and Szambelan and Jiang (2020) provide evidence that innovativeness and proactiveness mediate the relationship between non-predictive decision-making and innovation performance in established firms. A market orientation appears to mediate the connection between effectual reasoning and performance outcomes too (Karami et al., 2023). Regarding the use of resources and stakeholder integration, resource bundling positively mediates the relationship of effectuation, causation, and new venture performance (Guo et al., 2016). According to Chetty et al. (2024), collaboration with customers and partners mediates the relationships of causal market selection, effectual entry decisions, and international performance.

Building on these collected insights, a relevant prediction is that effectuation, causation, and EM complement one another. That is, EM provides a concrete, action-oriented approach to translate entrepreneurs' decision-making logic, through marketing strategies and market activities, into startup firm performance. The effectual emphasis on means-driven creation and resource utilization aligns well with EM. Furthermore, EM might function as a mechanism that converts exploratory and flexible approaches into startup firm success, by fostering innovative, proactive, and market-driving strategies. Similarly, causation and EM overlap in their structured, planning-based, goal-oriented approaches, corresponding to customer and

stakeholder value and risk management. Here, EM ensures that causal goals are effectively implemented and adjusted to market demands, which should enhance firm performance. Formally,

H6: EM positively mediates the relationship of effectuation and startup performance.

H7: EM positively mediates the relationship of causation and startup performance.

Figure 4 illustrates the hypothesized model, including the pathways by which effectuation and causation affect startup firm performance, with EM as a mediator.

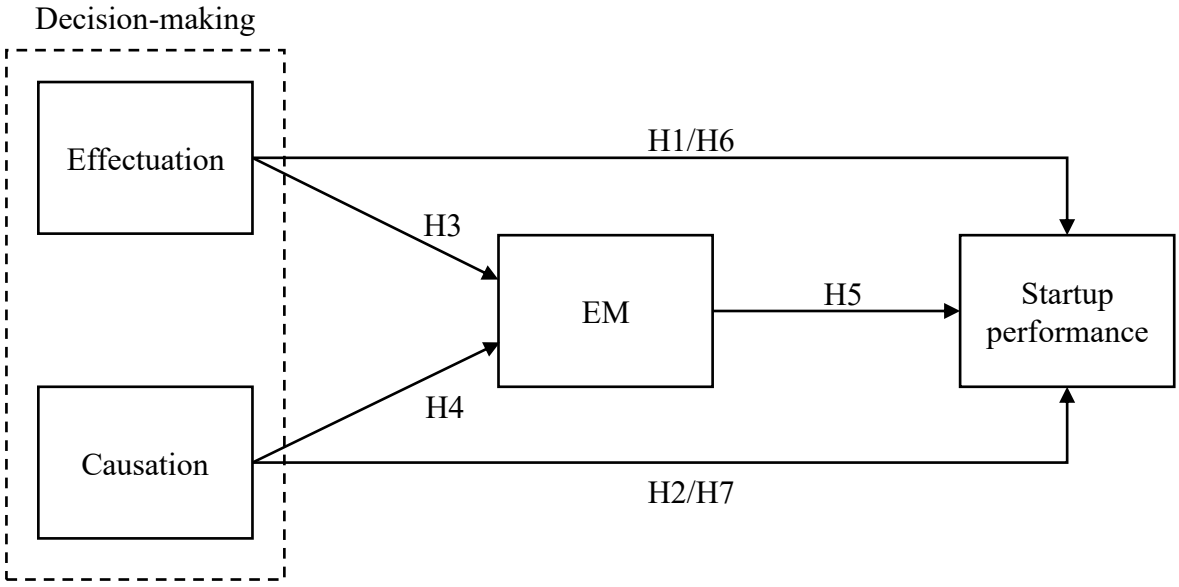

Figure 2. Research model of decision-making and EM, Source: Author

4.4 Method

4.4.1 Sample and data collection

This study builds on new venture literature and existing research on effectuation, and it defines startups as companies that are no more than six years old (Hmieleski and Baron, 2009; Rudeloff et al., 2022). The Startbase database of growth-oriented new firms, provided by the Federal Association of German Startups, includes young, innovative, and scalable companies in Germany. Before contacting firms on the extracted list, their operational status was verified, by checking their websites and confirming their active entries in the commercial register. This process led to the identification of 2,152 startups and their founders. Consistent with Frese et al. (2020), direct contact with potential informants was made through LinkedIn; if they consented, the entrepreneurs received a link to an online questionnaire, which consists of

existing items translated into German (see Figure A1 in the appendix). The data collection occurred between August and October 2023.

The 156 complete responses received represents a 7% response rate, which is conventional for small business and startup owner surveys, for which lower rates are expected (Alsos et al., 2016; Dennis, 2003). However, the data refinement stage required the removal of 3 companies older than six years and 1 without employees. Four other responses were excluded based on outlier and leverage diagnostics. Thus, the final sample consists of data from 148 firms, including 69% business-to-business, 20% business-to-business-to-consumer, and 11% business-to-consumer startups. Whereas 43% of respondents reported a focus on technology, 7% compete in pharmaceuticals, 5% in automotive, 5% in finance, 5% in consulting, 5% in consumer goods, 5% in industrial goods, 4% in leisure, 3% in education, 3% in creative industries, 2% in real estate, 2% in energy, 2% in tourism, and 8% in other industries. This sector distribution aligns with findings from extensive surveys conducted across the German startup ecosystem (Kollmann et al., 2023).

4.4.2 Measures

4.4.2.1 Decision-making

Chandler et al.'s (2011) established scale measures effectuation and causation, independently. The effectuation scale reflects a formative construct, comprised of experimentation, affordable loss, and flexibility. Due to its ambiguous classification, the precommitment construct from the original scale was excluded (Laskovaia et al., 2017; Peng et al., 2020). In addition to reliability tests, a confirmatory factor analysis (CFA) conducted to validate the measurements suggests that removing two items improves the model fit. In line with Smolka et al. (2018), one item related to experimentation was removed due to its high residual correlation, and another related to flexibility was excluded due to loading issues (Frese et al., 2020). The measure of effectuation, based on three constructs, offers good model fit (confirmatory fit index [CFI] = .97; Tucker-Lewis index [TLI] = .95; root mean square error of approximation [RMSEA] = .06; standardized root mean residual [SRMR] = .06).

Causation was measured as a unidimensional construct (Smolka et al., 2018), comprised of five items. It exhibited excellent fit (CFI = .99; TLI = .99; RMSEA = .03; SRMR = .03). The composite reliability (CR) values provide an assessment of internal consistency, considering the items' varying factor loadings; they should be greater than .70 (Hair et al., 2017). The average variance extracted (AVE) offers the check of convergent validity and should exceed .5. Other than affordable loss, the decision-making variable measures achieve adequate

reliability and validity (see Table A5 in the appendix). However, because affordable loss is central to the proposed conceptualization, and to ensure comparability with other studies, this construct was retained (Little et al., 1999).

4.4.2.2 Entrepreneurial marketing

The EM scale includes the six identified dimensions: innovativeness, proactiveness, risk-taking, customer orientation, resource leveraging, and market-driving (Eggers et al., (2020). This extensive scale should be evaluated with an iterative process, involving exploratory factor analysis, reliability testing, and CFA, to ensure its suitability for specific contexts. The Kaiser-Meyer-Olkin test yielded an overall value of .74, so the data were well-suited for factor analysis (Kaiser, 1974). One item had an individual measure of sampling adequacy value that fell below the threshold of .5 and thus was removed. Bartlett's test was significant (χ^2 (253) = 1201.95, p < .001), rejecting the hypothesis that the variables are uncorrelated in the population.

A parallel analysis suggested a complex factor structure with five constructs and also offered evidence of overlap between the measures of innovativeness and market-driving on a single component. As Khan et al. (2023) note, market-driving is inherently innovative. In addition, discriminant validity could not be established between these two constructs, because their AVEs are not greater than the squared correlations between them (Fornell and Larcker, 1981). Therefore, these two constructs are merged for subsequent analyses. After removing items with factor loadings below .4, the CFA was marginally adjusted, according to modification indices, to improve model fit (Hair et al., 2017). The final scale consists of five EM subdimensions and demonstrates good model fit (CFI = .98; TLI = .98; RMSEA = .03; SRMR = .08). Only resource leveraging exhibits CR and AVE values below the threshold.

4.4.2.3 Startup performance

Established scales that account for both profitability and growth aspects provide the measure of startup performance (Cai et al., 2017; Stam and Elfring, 2008). Two indicators, comprising three items, assess performance relative to competitors. The CFA results indicate covariances between market share and the growth indicators, consistent with Gilbert et al. (2006), who identify market share as a critical metric for the growth of young firms. This specification results in good model fit (CFI = .99, TLI = .97, RMSEA = .08, SRMR = .03). The CR values for profitability and growth exceed the recommended threshold (.82 and .86, respectively), indicating good internal consistency. The AVEs (.62 and .68, respectively) also suggest adequate convergent validity.

4.4.2.4 Controls

The analysis includes several control variables, to account for potential confounding factors related to environmental influences and firm-related metrics. To assess external influences, Chandler and Hanks (1993) recommend accounting for the level of competition; the adaptation in the current study asked respondents to evaluate the presence of well-established companies and the number of incumbent competitors with similar market positions. The Spearman-Brown coefficient (Eisinga et al., 2013) for two-item constructs can assess reliability, and it yielded satisfactory internal consistency (r = .73) for the level of competition. Market dynamism was measured with two items (r = .71), such that respondents rated the predictability of market demand and customer preferences and the difficulty of forecasting customer needs in the near future (McKelvie et al., 2018). This study also includes commonly used control variables in effectuation literature, such as firm age (years since founding) and size (number of employees) (Szambelan and Jiang, 2020), as well as the size of the founding team, because the number of founders might be a success factor for young firms (Song et al., 2008).

4.4.2.5 Overall model

The test of the overall model, to verify its validity and fit, includes calculating the heterotrait-monotrait (HTMT) ratio to check for discriminant validity in the complex model. This ratio is more sensitive and robust than AVE-based calculations (Henseler et al., 2015). The values for the focal constructs (Table 3) are well below the threshold of .85. Despite the model's detailed structure, the CFA indicates acceptable fit indices (CFI = .92, TLI = .90, RMSEA = .08, SRMR = .05). The variance inflation factors for the independent and mediating variables were below the commonly accepted threshold of 10 (Marquardt, 1970); the values did not even exceed 1.5, indicating that multicollinearity is not a significant concern. To mitigate the risk of common method bias (CMB), the survey included a 7-point Likert scale for the dependent variable and controls, and then a 5-point scale for the independent variable and mediator. The factor scores were derived from the CFA model, to calculate the hypothesized relationships. The measurements were standardized; if a scale involved multiple factors, the aggregated values were used.

4.4.3 Common method bias

Further potential biases could arise, because the dependent and independent variables were collected simultaneously from a single informant. This study adopted recommendations from Podsakoff et al. (2003) for both the study design and statistical measures to mitigate CMB. First, participants were assured of absolute anonymity, and no personal data were collected that

could link responses to specific founders. Second, the questions for the dependent and independent variables were not presented consecutively, and as noted, a different response scale for the dependent variables helped disrupt any automatic response patterns. Third, to ensure the clarity and appropriateness of the questionnaire, extensive pretests were conducted with founders and entrepreneurship experts, which validated the translation's comprehensibility (Brislin, 1970). Fourth, Harman's single-factor test was applied as a statistical check for CMB. The principal component analysis revealed that only 19.9% of the variance could be explained by one component, well below the 50% threshold, indicating that CMB was not a major concern (Fuller et al., 2016).

4.4.4 Descriptive analysis

Table 3 contains the variable means, standard deviations, and correlations, as well as the primary constructs' aggregated AVE scores and HTMT values, which indicate convergent and discriminant validity. On average, the startups in the sample are 3.46 years old and have 2.83 founders. To account for the right-skewed distribution of employee numbers, company size was log-transformed, and the transformed value corresponds to an average firm size of approximately 12 employees. Correlations among the main variables reveal several significant relationships, including positive correlations between the effectual scale (EFF) and EM (r = .45, p < .01) and between EM and the startup performance scale (SP) (r = .35, p < .01). The causality scale (CAUS) and EM also show a positive correlation (r = .44, p < .01), and CAUS reveals a positive relationship with SP (r = .22, p < .01). However, no significant correlation arose between EFF and SP.

Table 2. Means, standard deviations, correlation matrix, AVEs, and HTMT ratios (N=148)

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Effectuation	3.72	0.54	**0.50**	*0.32*	*0.20*	*0.01*				
2. Causation	3.82	0.75	.41**	**0.52**	*0.31*	*0.16*				
3. EM	3.80	0.56	.45**	.44**	**0.51**	*0.18*				
4. Performance	3.87	1.18	.07	.22**	.35**	**0.65**				
5. Age	3.46	1.53	-.06	.02	-.06	.20*				
6. Founder	2.83	1.10	-.03	.04	-.08	.07	-.02			
7. Size (ln)	2.51	0.87	-.18*	.08	.07	.54**	.33**	.15		
8. Competition	3.88	1.85	-.12	-.03	-.07	-.16	-.02	-.09	-.06	
9. Dynamism	2.99	1.22	-.10	-.19*	-.08	.02	.08	.03	.02	.00

Notes: The AVE values are in bold. Values in italics refer to HTMT ratios. * $p < .05$; ** $p < .01$ (two-tailed tests, 95% confidence level).

4.5 Results

The empirical test of the hypothesized relationships consists of a series of regressions, followed by a mediation analysis according to the PROCESS macro-bootstrapping approach in R (Hayes, 2012). Because PROCESS provides robust estimates of standard errors and p-values, it is particularly advantageous for examining indirect effects in smaller samples (Hayes et al., 2017). Table 4 presents the direct effects in six separate regression models. Although H1 posited that EFF positively influences firm performance in startups, in the regression analysis, the coefficient for EFF (β = .01) is not statistically significant. In weak support for H2, CAUS positively affects SP (β = .16, p < .1), at a marginally significant level. In contrast, the prediction that EFF positively influences EM in H3 receives strong support in the regression analysis, indicating a significant effect (β = .35, p < .01). The positive relationship between CAUS and EM (β = .33, p < .01) offers support for H4. Furthermore, in robust support for the prediction in H5 that EM positively influences SP, the results show that EM exhibits a strong positive effect (β = .33, p < .01).

Table 3. Regression analyses

	Dependent Variable					
	Performance				EM	
	1	2	3	4	5	6
Effectuation		0.01		-0.12		0.35***
Causation		0.16*		0.04		0.33***
EM			0.33***	0.37***		
Competition	-0.04	-0.03	0.01	-0.01	-0.11	-0.05
Dynamic	-0.03	0.01	-0.01	-0.01	-0.07	0.04
Age	-0.01	-0.01	0.02	0.02	-0.05	-0.07
Founder	-0.03	-0.03	0.01	0.01	-0.11	-0.09
Size (ln)	0.52***	0.51***	0.50***	0.47***	0.07	0.12
Constant	0.01	0.01	0.01	0.01	-0.01	-0.01
R^2	0.24	0.27	0.35	0.35	0.03	0.37
Adjusted R^2	0.21	0.23	0.32	0.32	-0.01	0.34
F Statistic	8.98***	7.28***	12.39***	9.50***	0.86	11.68***

Notes: N = 148; EM = entrepreneurial marketing. *p < .1, **p < .05, ***p < .01, standardized values.

Reinforcing the results in the regression models, to calculate the indirect effects, a bootstrapping test determines if EM mediates the relationships of effectuation, causation, and startup firm performance. As recommended by MacKinnon et al. (2012) for mediation analyses, PROCESS bootstrapping reveals 95% confidence intervals (CI), within which the effects are statistically significant, as long as the interval does not include 0. The direct effect of EFF on SP is β = -.12, but it is not statistically significant (CI [-.33, .06]); effectuation alone does not exert a direct impact on startup performance. In contrast, the direct effect of EFF on EM is β = .35, and this effect is statistically significant (CI [.15, .52]). Then EM significantly predicts SP, with a coefficient of β = .37 (CI [.20, .54]). The indirect effect from EFF, through EM, to SP is β = .13 (CI [.05, .22]), indicating significant mediation (Table 5).

Turning to CAUS, its direct effect on SP, β = .04, is not statistically significant (CI [-.14, .23]), so causation alone does not substantially influence startup performance either. The relationship between CAUS and EM is statistically significant, with a coefficient of β = .33 (CI [.14, .51]), such that causation has a positive effect on EM. As already noted, EM is a strong predictor of SP (β = .37). The indirect effect of CAUS, through EM, on SP is .12 (CI [.04, .22]). These results confirm a significant mediating role of EM. Among the control variables, only the number of employees significantly affects SP (β = .47, CI [.29, .64]). Table 5 summarizes the standardized indirect effects of the mediation analysis.

Table 4. Mediation results, indirect effects with bootstrapping

Path	Indirect effect	SE	LLCI	ULCI
EFF – EM – SP	0.13	0.05	0.04	0.23
CAUS – EM – SP	0.12	0.05	0.04	0.22

Notes: N = 148, completely standardized indirect effects. Bootstrapping sample size = 10000; SE = standard error; LLCI = lower limit confidence interval; ULCI = upper limit confidence interval.

According to Zhao et al.'s (2010) framework for classifying mediation effects, establishing mediation does not require a significant direct effect of the independent variable on the dependent variable in the absence of the mediator. Instead, the key criterion is the significance of the indirect effect. In contrast with the restrictive rules proposed by Baron and Kenny (1986), which require a significant direct effect to establish mediation, Zhao et al. (2010) account for cases of indirect-only mediation. The results of the current study reveal positive, indirect-only mediation, in support of both H6 and H7. The EM mediator is coherent with the hypothesized framework, and in both cases, EM fully mediates the relationship between

decision-making and startup performance. Because the indirect effects are significant, while the direct effects are not, both effectuation and causation appear to influence performance primarily through their impact on EM, underscoring its central role in translating decision-making logics into measurable outcomes.

4.6 Discussion and implications

4.6.1 Theoretical discussion

This study advances literature on entrepreneurial behavior and the entrepreneurship–marketing interface by examining effectual and causal decision-making by founders, as well as incorporating an EM orientation to determine their impacts on firm performance. By addressing both individual decision-making and firm-level strategy dimensions, within the specific context of startups, this study extends prior research on effectuation and causation and clarifies how and why these logics enhance firm performance (Arend et al., 2015; McKelvie et al., 2020). It also reveals how startup founders apply EM, a topic that primarily has been studied among SMEs rather than among growth-oriented new ventures (Bocconcelli et al., 2018; Breit and Volkmann, 2024).

As a primary theoretical contribution to decision-making literature, this study demonstrates that EM functions as a mediator of the influence of effectuation and causation on startup performance. Previous studies usually test for direct relationships between a decision-making logic and firm outcomes (Eyana et al., 2018; Smolka et al., 2018) or explore moderators (Guo, 2019; Vanderstraeten et al., 2020); this study advances the field by investigating both direct and indirect pathways through EM. Qualitative research indicates associations between decision-making logic and the use of EM in entrepreneurial firms (Breit and Volkmann, 2025; Yang and Gabrielsson, 2017), making it crucial to validate the effects quantitively. As shown herein, EM fully mediates the relationship, so neither decision-making logic drives firm performance directly. Instead, positive outcomes can be realized through founders' ability to translate effectual and causal logics into effective EM strategies.

This study also considers the standalone influences of effectuation and causation on performance. Effectuation does not have a significant impact; causation reveals a weak effect, in contrast with previous research (Guo et al., 2016; Laskovaia et al., 2017; Peng et al., 2020; Smolka et al., 2018). In contrast, the predicted relationships involving the direct effects of effectual and causal decision-making on EM are confirmed, affirming the positive influence of decision-making on a firm's strategic orientation (Karami et al., 2023; Palmié et al., 2019). These results further reinforce the indirect-only mediation; any influence is primarily mediated

through EM. After including the mediator, the direct effect of causation on performance becomes insignificant, and the effect of effectuation turns negative. The model thus demonstrates the critical role of EM in channeling the effects of effectual and causal decision-making toward startup firm performance.

Predictive and non-predictive logics might accelerate or decelerate the pace of venture development (Mauer et al., 2024). The finding that effectuation alone does not significantly affect performance, and even has a negative direct effect after incorporating EM as a mediator, may be explained by the very nature of effectuation. As a flexible, emergent decision-making logic, it likely lacks a fundamental structure, which can lead to inefficiencies or adverse outcomes without a clear strategic orientation, particularly in turbulent, startup growth phases. The insignificant direct effect of causation once EM is introduced similarly highlights that the influence of a goal-oriented, planned logic depends on how well it gets adapted and executed. Causal reasoning provides clear objectives, but an EM is needed to translate those goals into tangible performance outcomes. It provides the strategic direction required to harness the strengths of both effectual and causal reasoning and convert them into practical market actions. Reflecting the integration of forward-driven and reactive approaches, these findings indicate that decision-making logic and marketing strategy complement each other in driving startup performance. Therefore, effectuation and causation can be applied simultaneously.

Context is crucial though (Gaddefors and Anderson, 2017). Decision-making literature has revealed how specific contextual factors, such as a firm's age, industry, and national context, inform entrepreneurial decisions (Chen et al., 2021b). As a further contribution, this study offers insights gathered from young startup companies, competing in various industries within a large, open economy, which sets it apart from the previous studies in Table 2 that focus on micro-enterprises, new firms from China, or technology-focused businesses. The results further suggest that market dynamics and competitive intensity do not significantly influence startup performance. However, the strong positive relationship between the number of employees and performance reflects the importance of available internal resources (Short et al., 2009). These profound insights help clarify the relevance of entrepreneurial decision-making and strategic EM orientations for new entrepreneurial ventures.

In relation to EM research, this study represents a response to calls for integrating effectuation logic into EM (Alqahtani and Uslay, 2020; Whalen et al., 2016). By investigating both effectual and causal reasoning as antecedents of EM, the current analysis reinforces the suitability of using a decision-making logic as a foundation for exploring EM (Jong et al., 2021;

Robledo et al., 2023; Sá et al., 2023). Furthermore, it contributes to the rare efforts to measure EM, by adopting and testing the EM scale developed by Eggers et al. (2020). In so doing, it introduces a different approach, using five key components, which can serve as a foundation for further discussions of the most appropriate measurement. Finally, the results showing that EM strongly affects firm performance in startups complements previous research that prioritizes SME outcomes (Astuti and Balqiah, 2020; Sadiku-Dushi et al., 2019).

In summary, these findings underscore the complementary nature of effectuation and causation in turbulent startup settings. Recognizing the mediating role of EM is essential to understanding the impact of decision-making logics on firm performance. As a contribution to effectuation literature, this study identifies EM's mediating role (Grégoire and Cherchem, 2020). Higher-performing startups are not defined solely by their adherence to an effectual or causal logic but rather by their ability to translate these decision-making approaches into forward-driven and reactive strategies, through their implementation of EM.

4.6.2 Practical implications

Startup founders should recognize the importance of applying effectual and causal logics simultaneously, especially during uncertain, early stages of their venture growth. A predictive logic can provide structure and clear objectives for business development, but non-predictive decision-making offers valuable flexibility and adaptability for capitalizing on contingencies, with bearable downsides (Reymen et al., 2015). That is, effectuation helps entrepreneurs navigate unpredictability; causation offers stabilizing properties. Relying on either causation or effectuation exclusively thus is insufficient, and the success of these logics depends on the ability to convert them through effective strategic execution. An appropriate implementation in turn demands orientations such as EM. In this sense, forward-driven and reactive market activities function to translate decision-making processes into firm outcomes. Regardless of competitive intensity or market dynamics, developing strong EM capabilities—which include innovativeness, proactiveness, risk-taking, customer orientation, and resource leveraging—is critical for startups. For example, marketing efforts might be responsive to customer needs while also proactively and innovatively developing new opportunities. Market-related activities could include a willingness to take risks and use resources efficiently. By blending effectual agility with causal planning to maintain clear business goals, founders can exploit EM to align their decision-making with actionable market activities.

Innovation also is central to an effectuation logic and EM, and it drives competitive advantages and economic growth. For policy makers, fostering innovation—especially in aging

economies like Germany—is a priority, so they should encourage startups to leverage both decision-making approaches when adapting to or creating new markets. Balanced regulatory frameworks might offer founders planning certainty and resources but also grant them the flexibility and adaptability needed to navigate dynamic market developments. Reducing bureaucratic hurdles might increase startups' agility for responding quickly. Furthermore, digitalizing administrative processes can streamline interactions between startups and regulatory entities. Implementing or expanding regulatory sandboxes also would help startups test their innovative ideas, without having to surpass all legislative barriers.

To promote the development of EM capabilities within startups, policies could introduce training into government-led support programs, to help founders build marketing functions. Particularly for early-stage startups, reliable data are invaluable. Governments might facilitate access to market data by providing startups with access to market research, industry trends, and consumer behavior data that they can leverage to refine their strategies. The value of networks and partnerships for resources and knowledge acquisition also suggests that policy makers might strengthen available collaboration platforms, to enable entrepreneurs to share resources and learn from one another's experiences. These networks should actively promote and foster partnerships between startups and incumbent firms.

Teaching university students about predictive and non-predictive decision-making and their complementarity also seems crucial. Traditionally, they are presented as opposites, but the results suggest that successful founders use these logics in tandem. Therefore, entrepreneurship programs should highlight explicitly how the logics can be balanced and integrated, which may enable students to develop more nuanced decision-making skills (Mäkimurto-Koivumaa and Puhakka, 2013). The pertinent role of EM is equally important for future entrepreneurs. Entrepreneurship education should emphasize the value of EM strategies (Gilmore et al., 2020), and educators should equip students with the practical skill and tools to execute their reactive and forward-looking strategies in real-world settings—that is, to develop innovative, proactive, and customer-oriented marketing approaches while fostering a mindset that embraces risk-taking and creative resource leveraging.

4.7. Limitations and further research

Despite these valuable findings, this study has some limitations that suggest avenues for continued research. The cross-sectional design limits the ability to infer causality over time. Longitudinal investigations could provide deeper insights into how these relationships evolve. The study's context is limited to startups from Germany, and the findings may not be

generalizable to established firms or different cultural settings. Previous research has identified decision-making logics and EM alternations in distinct contexts (Chen et al., 2021b; Kowalik et al., 2022), but additional research could test whether the mediating role of EM arises in mature SMEs, large organizations, or emerging markets too. Although this study includes companies in a broad range of industries, most of them exhibit a technology focus, so the industry could have influenced the results. Subsequent analyses of the relationships among decision-making logic, EM, and firm performance should test them in non-tech sectors or within specific industries. Furthermore, the results indicate that firm size (number of employees) significantly affects firm performance, and further research is needed to segment startups at a more granular level, such as by distinguishing founding, early growth, and maturity phases.

Only one founder from each startup completed the survey, such that it may be beneficial to triangulate the data by including other company informants, such as employees or investors. Using secondary data to measure the dependent variable also might enrich the self-reported findings. Effectuation research suggests that individual characteristics—such as self-efficacy (Maitlo et al., 2020), passion (Laskovaia et al., 2022), and prior startup experience (Deligianni et al., 2022)—might influence decision-making. While incorporating psychological and experiential factors is beyond the scope of this study, they offer promising avenues for holistic explorations of the decision-making process in strategic orientation.

Finally, in the measures of the factors underlying the effectuation and EM scales, affordable loss and resource leveraging exhibited slightly lower convergent and discriminant validity, indicating the need for further refinement. The scores remain within acceptable ranges, but similar issues have been noted in previous studies (Deligianni et al., 2017; Yu et al., 2018), and Eggers et al. (2020) specify some limitations in the initial operationalizations of resource leveraging. Research that clarifies these constructs or validates the findings with larger samples would improve the reliability and generalizability of the findings in the startup context. To extend the initial insights regarding the interplay of effectuation, causation, and EM, continued research should clarify the insignificant direct effects and explore the individual dimensions of these constructs in greater detail. Confirming and deepening the results would enhance understanding of how specific aspects influence the overall relationship between decision-making logics and performance. Finally, it could be helpful to broaden research into the indirect effects of effectual and causal reasoning by considering related constructs, such as organizational learning, dynamic capabilities, or market orientation.

4.8. Conclusion

The growth process of startups is characterized by uncertainty. Founders must make a series of decisions, based on both planned, goal-oriented actions and flexible, adaptive approaches. These entrepreneurs also must navigate strategic decisions and guide their venture's development. To bridge entrepreneurial decision-making logic and firm orientation literature, this study offers a model that links effectuation, causation, and EM with startup performance. The findings suggest that predictive and non-predictive reasoning significantly influence firm outcomes, mediated by EM. As a result, this research offers new insights into the effects of effectuation and causation on performance, reveals behavioral processes in startups, and confirms EM as a critical mediating factor of founders' decision-making.

5. Concluding discussion

5.1 Summary of main findings

Emerging from the intersection of marketing and entrepreneurship, EM has evolved into a research field that encompasses multiple perspectives (Hansen et al., 2020; Miles et al., 2015; Kraus et al., 2012). This cumulative dissertation aims to provide an overview of the domain's development, through a systematic review, gap identification, and qualitative and quantitative inquiries to address at least some of those gaps. This thesis particularly deals with gaps pertaining to the decision-making processes adopted by startup founders in a strategic EM context. The articles build on one another, but each also contributes uniquely to EM research, offering distinct insights that advance understanding in multiple ways.

The first article constitutes Chapter 2 and offers a systematic literature review of 207 peer-reviewed EM contributions published between 2010 and 2021. The findings reveal two primary insights. First, the descriptive analysis highlights the dynamic growth of EM research, which has featured a steady global increase in publications and diverse methodologies. Second, the thematic analysis identifies three main perspectives (entrepreneur, business, and market). The entrepreneur perspective focuses on entrepreneurial characteristics, behaviors, and entrepreneur–stakeholder interactions; the business perspective emphasizes strategic and tactical firm-level considerations; and the market perspective reflects the impact of environmental factors in EM and the discovery and exploitation of opportunities. The review identifies both perspective-specific and overarching research avenues. For example, the behavior subtheme within an entrepreneur perspective suggests that EM research could benefit from the effective application of Sarasvathy's (2001) effectuation theory. Although the business strategy subtheme contains the most contributions, it also presents a fragmented view of EM's impact on performance, due to the varied conceptualizations and firm contexts. In addition, only one study has qualitatively explored the connections of behavioral research and strategic EM dimensions, focusing on mature, international new ventures (Yang and Gabrielsson, 2017).

By linking the entrepreneur and business perspectives, the second research article (Chapter 3) addresses the decision-making behavior of founders and EM dimensions in startups—a business context that has received little attention in prior EM research. Over the course of 12 semi-structured interviews with ten startup founders and two founder associates in Germany, this study clarifies how effectuation and causation influence EM dimensions. The methodology reveals a distinct pattern of predictive and non-predictive behaviors within a code-relation matrix, which in turn can characterize various activities within startups. The findings

indicate that a causal logic predominates in founders' EM, and effectual logic has a complementary role. At the dimension level, a goal-oriented focus on customer intensity and value creation emerges. Predictive logic drives opportunity focus, proactiveness, and risk management; non-predictive behaviors contribute to adaptability. The principle of affordable loss also informs risk management. Finally, startups display a blend of causal and effectual logic in their innovativeness and resource leveraging.

The third research article (Chapter 4) builds on the concepts of the second study and expands them into a model that encompasses effectuation, causation, EM, and startup firm performance. The developed hypotheses predict a mediating role of EM between decision-making logic and firm outcomes. The empirical test of the model, with a sample of 148 startup founders from various industries in Germany, reveals direct and indirect pathways. That is, EM is a critical mediating factor in the relationship between decision-making logic and startup outcomes, and it ultimately enhances performance. The evidence of indirect-only mediation also indicates that EM fully mediates the relationship; neither decision-making logic directly influences firm performance when this mediator is included in the model. Instead, founders achieve positive outcomes by translating their effectual and causal logic into effective EM strategies.

5.2 Implications for research and practice

5.2.1 Theoretical contributions

The three research articles in this cumulative dissertation explore the development of the EM research field and deepen understanding of how effectuation and causation contribute to EM strategy in startups. As a result, these findings have significant theoretical implications for entrepreneurship and decision-making scholars. In line with the characterization of EM as a diffuse and complex field with multiple perspectives (Hansen et al., 2020; Most et al., 2018), this thesis begins with an overview and research agenda. The first article therefore synthesizes recent research on EM and advances the field with a systematic review and thematic analysis that categorizes EM into three primary perspectives: entrepreneur, business, and market. This approach advances prior narrative (Miles et al., 2015) and bibliometric (e.g., Kraus et al., 2012) analyses; the detailed synthesis helps clarify EM's complexities. Furthermore, the article underscores the need to establish boundary conditions that distinguish EM from traditional SME marketing studies. It suggests a differentiated approach: By focusing on innovative actors' marketing challenges in dynamic environments, EM research can broaden its scope to include startups and larger firms.

A systematic literature review represents an essential step in rapidly expanding domains, in that it establishes a knowledge base that can support continued research activities. Notably, this first article already has influenced subsequent research and studies that explore underdeveloped areas, such as the customer influence from the business perspective (e.g., Jenkins, 2024; Kuhn and van der Westhuizen, 2024) and EM's influence on business performance (e.g., Yadav et al., 2024). Thus, as a first step, Chapter 2 consolidates EM research while laying the groundwork for the empirical investigations in the second and third articles.

Chapters 3 and 4 deepen theoretical understanding of how decision-making logics, especially effectuation and causation, interact with EM dimensions in startup contexts. By combining qualitative and quantitative methods, these studies explore the constructs and their implications for performance comprehensively; in turn, they also address a fundamental research gap identified in the systematic literature review, which highlights the need for integrating entrepreneur and business perspectives within EM (Breit and Volkmann, 2024). By collecting interview-based and large-scale survey data, these studies leverage the depth and contextual richness of qualitative research, alongside the generalizability and statistical rigor of quantitative methods (Johnson et al., 2007). Thus, they provide a comprehensive view of EM decision-making in startups.

Chapter 3 also uncovers how founders integrate causation and effectuation principles into their EM approach. It highlights the dynamic interplay between predictive and non-predictive logics, by exploring decision-making behaviors across EM dimensions (see also Becherer et al., 2012; Morris et al., 2002), according to a coding structure provided by Reyman et al. (2015). The findings, as captured in propositions, offer principle-specific assumptions for each EM dimension (Breit and Volkmann, 2025). Then Chapter 4 builds on these qualitative insights by quantitatively examining the relationship among decision-making logic, EM, and startup performance. Using an established scale from Chandler et al. (2011) and a newly developed scale by Eggers et al. (2020), this study introduces EM as a mediating variable. It also provides empirical evidence of the critical role of EM in translating predictive and non-predictive logics into firm outcomes. This behavioral analysis offers novel insights into how founders navigate uncertainty and resource constraints, thereby contributing to a theoretical grounding of EM as a construct that is shaped by individual decision-making. Together, these articles provide the first comprehensive assessment of effectuation, causation, and EM dimensions in startups, and they significantly advance the discourse on entrepreneurial behavior and EM.

From an EM perspective, this dissertation makes another significant theoretical contribution by extending the purview to include the startup context. Existing EM research has focused mainly on SMEs; the current work broadens the scope to young, growth-oriented ventures. In addition to exploring the relevance of EM dimensions within the startup context, it demonstrates their impacts on firm performance. It thus contributes to ongoing discussions of performance measurement in EM (Fiore et al., 2013; Alqahtani et al., 2022) and addresses a methodological gap by applying and adapting Eggers et al.'s (2020) scale to startups, as a robust foundation for continued research. At the same time, this thesis presents compelling arguments for the suitability of effectuation theory as a framework for EM research (e.g., Whalen et al., 2016; Hills and Hultman, 2011a; Lam and Haker, 2015).

With regard to decision-making research in startups, the qualitative findings extend literature on entrepreneurial behavior and underscore the centrality of a causal logic in founders' strategies (Mauer et al., 2024). Yet the research also acknowledges the complementary nature of effectuation and causation, demonstrating that both logics can coexist, an insight that enriches discourse about their interplay (e.g., Galkina and Jack, 2022; Jiang and Rüling, 2019; Pöschl, 2022). In line with calls to identify mediating variables in effectuation research (Grégoire and Cherchem, 2020), this thesis identifies EM as a mediator that links decision-making behaviors to startup performance. The quantitative findings specify that effectuation has no standalone impact on performance, and causation exerts only a weak direct effect when EM is excluded from the model, which conflicts with existing new venture studies (Laskovaia et al., 2017; Peng et al., 2020; Smolka et al., 2018). These insights reinforce EM's pivotal role in channeling predictive and non-predictive logics into actionable strategies that can enhance startup firm performance.

5.2.2 Practical implications

The practical implications of this thesis seem primarily relevant for startup entrepreneurs encountering early-stage growth challenges, but they also offer insights for educators and policymakers. In particular, startup entrepreneurs should focus on developing and implementing forward-driven, reactive EM strategies, including innovativeness, proactiveness, risk-taking, customer orientation, and resource leveraging. Both a predictive logic, which provides structure and clear objectives for business development, and non-predictive decision-making, which offers flexibility and adaptability to capitalize on contingencies with bearable downsides, should be applied. The findings underscore the importance of conventional planning, especially when setting clear, market-aligned goals.

Entrepreneurs should prioritize efforts to craft and communicate value that aligns with market needs and stakeholder expectations. Yet a flexible approach to emerging opportunities and external market changes is equally vital, by enabling entrepreneurs to adapt quickly to market shifts. Managing risk in critical business decisions requires careful preparation and a focus on anticipated outcomes; operational decisions, such as promotional and pricing activities, instead may benefit from experimentation. A culture of innovation and encouraging entrepreneurs to involve their team members in creative problem-solving is also essential. Finally, the effective utilization of resources is vital to the growth of startups. Exploring co-creation opportunities and engaging in strategic partnerships can efficiently enhance marketing efforts. In this sense, effectuation helps entrepreneurs navigate unpredictability, by providing adaptability and creativity, whereas causation adds stabilizing properties. By blending effectual agility with causal planning to maintain clear business goals, founders can use EM as a framework to align their decision-making with actionable market activities and ultimately enhance firm outcomes.

Educators need to incorporate EM strategies into entrepreneurship curricula to equip future entrepreneurs with the practical tools they need to execute innovative, customer-oriented, risk-taking strategies while still leveraging resources and managing risk, in ways that can significantly enhance their readiness for real-world challenges. Equally important, entrepreneurship programs need to move beyond presenting predictive and non-predictive decision-making logics as opposites and instead teach students about their complementarity and potential integration, so that students can develop nuanced, effective decision-making skills.

From a policy perspective, promoting EM capabilities and innovation is critical to empowering startups and driving economic growth, particularly in aging economies like Germany. Government-led support programs should focus on helping founders build their marketing functions and facilitating access to market data to refine their strategies and enhance their implementation efforts. Collaborative platforms that foster partnerships between startups and incumbent firms also can be vital. Balanced regulatory frameworks should provide startups with planning certainty and resources while enabling them to maintain flexibility for market adaptation. Key goals might include reducing bureaucratic hurdles and advancing digitalized administrative processes to help startups test their innovative ideas effectively.

5.3 Limitations and avenues for further research

The limitations of this cumulative dissertation primarily reflect the selected research perspectives and the methods employed in the individual studies. Each article addresses its own study-specific limitations and offers directions for further research; this chapter consolidates

the overarching limitations shared across the studies and highlights areas where further investigation can build on this dissertation's findings.

The systematic literature review represents a snapshot in time. It is essential to synthesize new insights into EM regularly. In this process, adopting a narrower approach for consolidation may be beneficial, such as reviews that focus on specific perspectives within EM to deal with the rapidly expanding volume of publications and diverse themes. This dissertation's second and third studies (Chapters 3 and 4) build on some of the research questions identified in the review, but the primary goal of this thesis was to establish connections between behavioral entrepreneur and strategic business perspectives. Other areas of concentration, such as operational marketing tactics or environmental conditions, also need to be addressed. Considering the importance of context for EM (Harris and Deacon, 2011), researchers should examine underdeveloped market perspectives, which offer further potential to distinguish EM from traditional SME marketing.

The second and third studies also concentrate on startup founders from various industries in a large, open economy. Although they extend EM literature to new, growth-oriented ventures in Germany, their focus also constitutes a limitation with regard to firm type and market context. First, the level of innovation within firms may influence the findings. Startups are characterized by innovative and scalable business models, so continued research should examine whether the insights apply to ventures without growth ambitions. The impact of incremental versus radical innovations also likely differ, which could affect the outcomes (e.g., McDermott and O'Connor, 2002; Tiberius et al., 2021). Second, recent studies, such as Kowalik et al.'s (2022), highlight differences in EM orientation across cultural and industry contexts, emphasizing the need for cross-cultural and industry-specific analyses to address these potential variations and enrich understanding of EM strategies.

Another shared limitation of the second and third empirical studies is their cross-sectional design. The startups in these studies vary in age between one and six years. Decision-making research suggests that predictive and non-predictive logics change as firms grow and mature (Anagnou et al., 2019; Khurana et al., 2022; Reymen et al., 2015). Longitudinal studies could offer valuable insights into how decision-making behaviors and EM strategies develop, and research based on larger samples would enable a more granular segmentation of startups, such as distinguishing founding, early growth, and later phases. Furthermore, both studies rely on data from a single informant per company. Including perspectives from employees, investors, co-founders, and customers could enrich the data and provide a more holistic

perspective. Triangulating multiple stakeholders' data also would strengthen the findings' robustness and offer deeper insights into entrepreneurial decision-making and EM strategies within startups.

Despite such limitations, this cumulative dissertation advances the theoretical and practical discourse in EM by offering new insights, particularly from an entrepreneurial decision-making perspective and regarding the strategic orientation of startup founders. Continued research is now tasked with legitimizing EM further as a research domain and solidifying its significance for entrepreneurs, businesses, and the broader economy. I hope this thesis has made a valuable contribution toward that meaningful goal.

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Appendix

Article 3

Table A1. Factor loadings and convergent validity

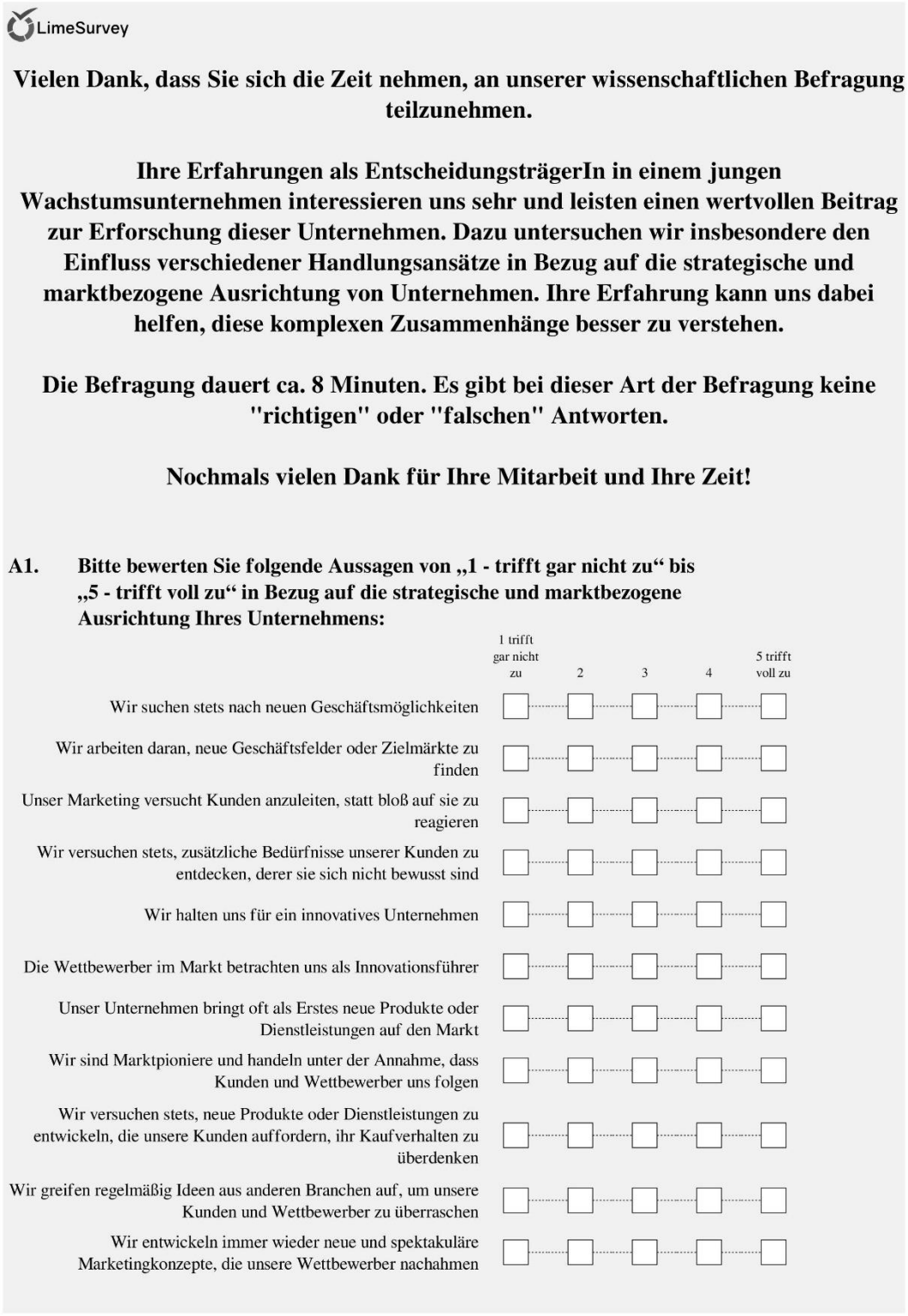
Items/ Variables	Loading	CR	AVE
Causation		0.84	0.52
We had a clear and consistent vision for where we wanted to end up.	0.71		
We designed and planned business strategies.	0.85		
We developed a strategy to best take advantage of resources and capabilities.	0.77		
We designed and planned production and marketing efforts.	0.62		
We organized and implemented control processes to make sure we met objectives.	0.63		
Experimentation		0.80	0.58
We experimented with different products and/or business models.	0.86		
We tried a number of different approaches until we found a business model that worked.	0.88		
The product/service that we now provide is substantially different than we first imagined.	0.50		
Flexibility		0.74	0.50
We were flexible and took advantage of opportunities as they arose.	0.76		
We allowed the business to evolve as opportunities emerged.	0.86		
We avoided courses of action that restricted our flexibility and adaptability.	0.44		
Affordable loss		0.66	0.40
We were careful not to commit more resources than we could afford to lose.	0.59		
We were careful not to risk more money than we were willing to lose with our initial idea.	0.78		
We were careful not to risk so much money that the company would be in real trouble financially if things didn't work out.	0.49		
Proactiveness		0.76	0.53
We consistently look for new business opportunities.	0.89		
We work to find new businesses or markets to target.	0.79		
We continuously try to discover additional needs of our customers of which they are unaware.	0.41		
Innovativeness		0.76	0.51
Competitors in this market recognize us as leaders in innovation.	0.58		
Our business is often the first to market with new products and services.	0.86		
We are market pioneers and act on the assumption that consumers and competitors follow us.	0.69		

Table A1. continued

Items/ Variables	Loading	CR	AVE
Risk-taking		0.76	0.52
We encourage people in our company to take risks with new ideas.	0.55		
We engage in risky investments (e.g., new employees, facilities, debt) to stimulate future growth.	0.81		
To make effective changes to our offering, we are willing to accept at least a moderate level of risk of significant losses.	0.78		
Customer orientation		0.77	0.54
We measure customer satisfaction systematically and frequently.	0.88		
Data on customer satisfaction is disseminated at all levels in this business unit on a regular basis.	0.81		
Our strategy for competitive advantage is based on our understanding of customer needs.	0.43		
Resource leveraging		0.67	0.41
In our business, we explore options to operate in cost-efficient ways.	0.53		
In our business, we use connections to friends, business partners, etc. to get cost-efficient access to information and advice.	0.78		
We use connections to other firms to increase our offerings in cost-efficient ways.	0.60		
Performance (Profitability)		0.82	0.62
Return on sales	0.86		
Return on asset	0.94		
Market share	0.49		
Performance (Growth)		0.86	0.68
Employees' growth	0.69		
Sales growth	0.91		
Market shares growth	0.86		

Notes: This table only lists the items included in the final survey. CR = composite reliability; AVE = average variance extracted.

Figure A1. Questionnaire article 3, Source: Author



LimeSurvey

Vielen Dank, dass Sie sich die Zeit nehmen, an unserer wissenschaftlichen Befragung teilzunehmen.

Ihre Erfahrungen als EntscheidungsträgerIn in einem jungen Wachstumsunternehmen interessieren uns sehr und leisten einen wertvollen Beitrag zur Erforschung dieser Unternehmen. Dazu untersuchen wir insbesondere den Einfluss verschiedener Handlungsansätze in Bezug auf die strategische und marktbezogene Ausrichtung von Unternehmen. Ihre Erfahrung kann uns dabei helfen, diese komplexen Zusammenhänge besser zu verstehen.

Die Befragung dauert ca. 8 Minuten. Es gibt bei dieser Art der Befragung keine "richtigen" oder "falschen" Antworten.

Nochmals vielen Dank für Ihre Mitarbeit und Ihre Zeit!

A1. Bitte bewerten Sie folgende Aussagen von „1 - trifft gar nicht zu“ bis „5 - trifft voll zu“ in Bezug auf die strategische und marktbezogene Ausrichtung Ihres Unternehmens:

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir suchen stets nach neuen Geschäftsmöglichkeiten	☐	☐	☐	☐	☐
Wir arbeiten daran, neue Geschäftsfelder oder Zielmärkte zu finden	☐	☐	☐	☐	☐
Unser Marketing versucht Kunden anzuleiten, statt bloß auf sie zu reagieren	☐	☐	☐	☐	☐
Wir versuchen stets, zusätzliche Bedürfnisse unserer Kunden zu entdecken, derer sie sich nicht bewusst sind	☐	☐	☐	☐	☐
Wir halten uns für ein innovatives Unternehmen	☐	☐	☐	☐	☐
Die Wettbewerber im Markt betrachten uns als Innovationsführer	☐	☐	☐	☐	☐
Unser Unternehmen bringt oft als Erstes neue Produkte oder Dienstleistungen auf den Markt	☐	☐	☐	☐	☐
Wir sind Marktpioniere und handeln unter der Annahme, dass Kunden und Wettbewerber uns folgen	☐	☐	☐	☐	☐
Wir versuchen stets, neue Produkte oder Dienstleistungen zu entwickeln, die unsere Kunden auffordern, ihr Kaufverhalten zu überdenken	☐	☐	☐	☐	☐
Wir greifen regelmäßig Ideen aus anderen Branchen auf, um unsere Kunden und Wettbewerber zu überraschen	☐	☐	☐	☐	☐
Wir entwickeln immer wieder neue und spektakuläre Marketingkonzepte, die unsere Wettbewerber nachahmen	☐	☐	☐	☐	☐

A2.

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir messen die Kundenzufriedenheit systematisch und regelmäßig	☐	☐	☐	☐	☐
Daten zur Kundenzufriedenheit werden regelmäßig im ganzen Unternehmen verbreitet	☐	☐	☐	☐	☐
Unsere Strategie für den Aufbau von Wettbewerbsvorteilen basiert auf unserem Verständnis der Kundenbedürfnisse	☐	☐	☐	☐	☐
Wir überprüfen stets unser Engagement und unsere Ausrichtung entlang der Bedürfnisse unserer Kunden	☐	☐	☐	☐	☐
Wir sprechen offen im ganzen Unternehmen über unsere erfolgreichen und nicht erfolgreichen Kundenerfahrungen	☐	☐	☐	☐	☐
In unserem Unternehmen suchen wir nach Möglichkeiten, kosteneffizient zu arbeiten	☐	☐	☐	☐	☐
Im Unternehmen nutzen wir Beziehungen zu Freunden, Geschäftspartnern usw., um kosteneffizienten Zugang zu Informationen und Ratschlägen zu erhalten	☐	☐	☐	☐	☐
Wir nutzen Beziehungen zu anderen Unternehmen, um unser Angebot auf kosteneffiziente Weise zu erweitern	☐	☐	☐	☐	☐
Wir arbeiten mit anderen Unternehmen zusammen, um Aufträge zu vermitteln und so Marketingkosten zu sparen	☐	☐	☐	☐	☐

A3.

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir ermutigen die Personen in unserem Unternehmen, mit neuen Ideen Risiken einzugehen	☐	☐	☐	☐	☐
Wir tätigen riskante Investitionen (z.B. durch neue Mitarbeitende, Anlagen, Unternehmensbeteiligungen) um zukünftiges Wachstum zu fördern	☐	☐	☐	☐	☐
Um unser Angebot zu verbessern, sind wir bereit, zumindest ein moderates Risiko erheblicher Verluste zu akzeptieren	☐	☐	☐	☐	☐

B1. Bitte bewerten Sie folgende Aussagen von „1 - trifft gar nicht zu“ bis „5 - trifft voll zu“ in Bezug auf die Handlungsansätze in Ihrem Unternehmen:

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir experimentieren mit verschiedenen Produkten und/ oder Geschäftsmodellen	☐	☐	☐	☐	☐
Wir probieren verschiedene Ansätze aus, bis wir ein funktionierendes Geschäftsmodell gefunden haben	☐	☐	☐	☐	☐
Produkte oder Dienstleistung, die wir jetzt anbieten, sind im Wesentlichen die gleichen, wie ursprünglich konzipiert	☐	☐	☐	☐	☐
Produkte oder Dienstleistung, die wir jetzt anbieten, unterscheiden sich wesentlich von dem, was wir uns ursprünglich vorgestellt haben	☐	☐	☐	☐	☐

B2.

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir achten darauf, nicht mehr Ressourcen einzusetzen, als wir bereit sind zu verlieren	☐	☐	☐	☐	☐
Wir achten darauf, nicht mehr Geld zu riskieren, als wir mit der ursprünglichen Geschäftsidee bereit waren, zu verlieren	☐	☐	☐	☐	☐
Wir achten darauf, nur so viel Geld zu riskieren, sodass das Unternehmen bei Misserfolgen nicht in ernsthafte finanzielle Schwierigkeiten gerät	☐	☐	☐	☐	☐

B3.

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir sind flexibel und nutzen sich bietende Gelegenheiten	☐	☐	☐	☐	☐
Wir lassen es zu, dass sich das Unternehmen weiterentwickelt, wenn sich neue Möglichkeiten ergeben	☐	☐	☐	☐	☐
Das was wir tun, passen wir an unsere vorhandenen Ressourcen an	☐	☐	☐	☐	☐
Wir meiden Vorgehensweisen, die unsere Flexibilität und Anpassungsfähigkeit einschränken	☐	☐	☐	☐	☐

B4.

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir treffen eine Vielzahl an Vereinbarungen mit Kunden, Lieferanten und anderen Organisationen/ Personen, um Unsicherheit zu reduzieren	☐	☐	☐	☐	☐
Wir nutzen so oft wie möglich Vorabverpflichtungen (z.B. Vorbestellungen, Liefergarantien oder Absichtserklärungen) von Kunden und Lieferanten	☐	☐	☐	☐	☐

C1. Bitte bewerten Sie folgende Aussagen von „1 - trifft gar nicht zu“ bis „5 - trifft voll zu“ in Bezug auf die Handlungsansätze in Ihrem Unternehmen:

	1 trifft gar nicht zu	2	3	4	5 trifft voll zu
Wir haben eine klare und konsistente Vision, wo wir hinwollen	☐	☐	☐	☐	☐
Wir entwerfen und planen Geschäftsstrategien	☐	☐	☐	☐	☐
Wir haben eine Strategie entwickelt, durch die unsere Ressourcen und Fähigkeiten optimal genutzt werden	☐	☐	☐	☐	☐
Wir konzipieren und planen Maßnahmen zum Marketing und zur Leistungserbringung	☐	☐	☐	☐	☐
Wir haben Zielmärkte analysiert und ausgewählt sowie eine aussagekräftige Wettbewerbsanalyse durchgeführt	☐	☐	☐	☐	☐
Wir analysieren langfristige unternehmerische Gelegenheiten und wählen jene aus, die unserer Meinung nach die besten Renditen haben	☐	☐	☐	☐	☐
Wir haben Kontrollprozesse eingerichtet und umgesetzt, um sicherzustellen, dass wir unsere Ziele erreichen	☐	☐	☐	☐	☐

C2. Bitte schätzen Sie folgende Kennzahlen Ihres Unternehmens im Vergleich zu ihren Wettbewerbern auf einer Skala von „1- viel niedriger“ bis „7- viel höher" ein:

Nettoumsatzrendite = Verhältnis von Nettogewinn zum Umsatz

Gesamtkapitalrendite = erzielte Rendite mit dem eingesetzten Kapital

	1 viel niedriger	2	3	4	5	6	7 viel höher
Nettoumsatzrendite (Return on sales)	☐	☐	☐	☐	☐	☐	☐
Gesamtkapitalrendite (Return on assets)	☐	☐	☐	☐	☐	☐	☐
Marktanteil	☐	☐	☐	☐	☐	☐	☐
Geschwindigkeit des Mitarbeiterwachstums	☐	☐	☐	☐	☐	☐	☐
Geschwindigkeit des Umsatzwachstums	☐	☐	☐	☐	☐	☐	☐
Geschwindigkeit des Marktanteilswachstums	☐	☐	☐	☐	☐	☐	☐

D1. Bitte geben Sie das Gründungsjahr des Unternehmens an:

Jahr der Eintragung in das Handelsregister

- 2016 und früher ☐
- 2017 ☐
- 2018 ☐
- 2019 ☐
- 2020 ☐
- 2021 ☐
- 2022 ☐

D2. Wie viele Personen waren zu Beginn der Unternehmung Teil des Gründerteams?

- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 und mehr ☐

D3. Wie viele Personen arbeiten momentan im Unternehmen?

☐☐☐☐☐☐☐☐☐☐

D4. Welcher Branche würden Sie das Unternehmen am ehesten zuordnen?

- ☐ Agrar-/ Landwirtschaft
- ☐ Automobile/ Mobilität/ Logistik
- ☐ Banken/ Finanzen/ Versicherungen
- ☐ Bau/ Immobilien
- ☐ Beratung/ Agentur/ Human Resources
- ☐ Bildung
- ☐ Chemie/ Biologie/ Pharma/ Gesundheitswesen
- ☐ Energie/ Elektrizität
- ☐ Ernährung/ Konsumgüter
- ☐ Freizeit/ Sport/ (Online-)Gaming
- ☐ Informations- und Kommunikationstechnologie
- ☐ Industriegüter
- ☐ Medien/ Kreativwirtschaft
- ☐ Textilbranche
- ☐ Tourismus
- ☐ Sonstiges

D5. Welche Zielgruppe spricht das Unternehmen primär an?

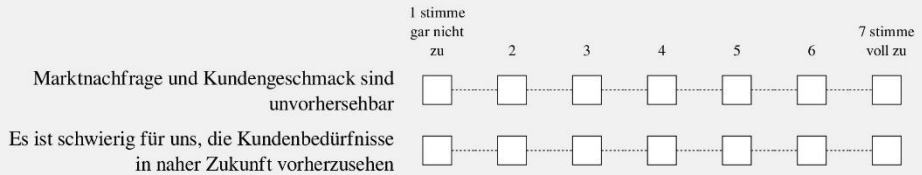
B2B = Verkauf von Produkten/ Dienstleistungen von Ihrem Unternehmen an andere Unternehmen B2C = Verkauf von Produkten/ Dienstleistungen von Ihrem Unternehmen an Endkunden B2B2C = Modell, in dem Ihr Unternehmen mit anderen Unternehmen zusammenarbeitet, um Produkte/ Dienstleistungen an Endverbraucher zu verkaufen

- ☐ B2B
- ☐ B2C
- ☐ B2B2C

D6. Bitte bewerten Sie folgende Aussagen von „1 - stimme gar nicht zu“ bis „7 - stimme voll zu“ in Bezug auf die Wettbewerbssituation in Ihrem Marktumfeld:

	1 stimme gar nicht zu	2	3	4	5	6	7 stimme voll zu
Es gibt mehrere Unternehmen, die seit Jahren gut etabliert sind	☐	☐	☐	☐	☐	☐	☐
Es gibt mehrere große Konkurrenten mit ähnlichen Wettbewerbspositionen	☐	☐	☐	☐	☐	☐	☐
Es gibt eine große Zahl neuer Marktteilnehmer	☐	☐	☐	☐	☐	☐	☐

D7. Bitte bewerten Sie folgende Aussagen von „1 - stimme gar nicht zu“ bis „7 - stimme voll zu“ in Bezug auf die Marktdynamik in Ihrem Umfeld:



Herzlichen Dank, dass Sie sich die Zeit genommen haben, an unserer Befragung teilzunehmen!

Sollten Sie Interesse an der Ergebnissen der Studie haben, können Sie sich unter breit@uni-wuppertal.de an Herrn Luca Breit wenden.

Sie können diese Seite jetzt schließen.