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THE ROLE OF MARKETING INNOVATIONS IN FIRM PERFORMANCE IN
THE ESTONIAN TECH SECTOR

Bachelor Thesis

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I have written this Bachelor Thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

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Introduction

Marketing innovations and technological advancements are interconnected and play a crucial role in improving firm performance, particularly in the tech sector. For example, mobile positioning technology represents a technological advancement that improves marketing strategies by providing detailed visitor data for improved decision-making (Kuusik et al., 2011). In B2B contexts, technological innovations support marketing innovations by enabling firms to implement more effective strategies, with ethical leadership moderating this effect (Lin et al., 2020). The ability to measure marketing performance positively affects firm performance in the European high-tech sector, with reporting frequency mediating this relationship (O'Sullivan et al., 2009). While previous studies demonstrate that technological innovations, such as mobile positioning technology, enhance marketing performance by improving data collection and analysis, marketing innovations can directly influence how firms design products to engage customers and differentiate themselves.

The Estonian tech sector has garnered international attention as a dynamic hub of innovation which is driven by its digital-forward policies and entrepreneurial mindset. As Lumiste et al., 2008 state, the evolution of Estonia's market economy and its competitiveness have been significantly shaped by integration with the European Union, highlighting the interplay between external anchors and innovative practices. Estonia's persistent commitment to innovation has established it as a leading force in digital advancement, particularly within the ICT sector (Marek Grzegorzcyk, 2024). This environment has fostered the emergence of numerous startups, with companies like Skype, Wise (formerly TransferWise) and Bolt originating from the country (Emerging Europe Staff, 2024).

Marketing innovation has developed as one of the key drivers of competitive advantage, particularly in sectors which are characterised by technological change. Different dimensions of innovativeness, such as product and strategic innovativeness, influence marketing effectiveness and firm performance, with marketing effectiveness helping to explain this relationship (Alpay et al., 2012). As highlighted by Lamoria et al., 2024, advancements in customer engagement innovation, one of the aspects of marketing innovation, have shown the largest positive impact on firm performance, demonstrating the strategic significance of tailored customer interactions in driving business success.

Furthermore, Estonia, as a leader in digitalization, provides an ideal case study to explore how tech firms integrate these tools into their marketing strategies. The strategic implementation of digital technologies enables enterprises to improve decision-making, optimize productivity and reconfigure traditional business models, making it a valuable

context for examining the broader implications of marketing innovation (Kovtunen & Lozan, 2024).

Despite the recognized importance of marketing innovation in numerous contexts, its specific influence on firm performance in smaller and more tech-driven economies like Estonia has received limited scholarly attention. To address this gap, the present study focuses on examining the distinct marketing innovation practices employed by Estonian tech firms and assessing how these practices shape business outcomes. By building on established theories of innovation and performance, as well as the unique attributes of Estonia's digital ecosystem, this research seeks to contribute insights into both the conceptual understanding and practical implementation of marketing innovation strategies.

The aim of this research is to evaluate the role of marketing innovations in firm performance in the Estonian tech sector.

To make sure that the aim of this research is reached, the author set up the following tasks:

- Define the theoretical concept of innovation and provide an overview of marketing innovation, including its various types.
- Analyze how marketing performance is measured in firms, focusing on key performance indicators (KPIs) and their relevance to firm performance.
- Evaluate the role of marketing innovation in firm performance by reviewing existing studies and outlining methodologies used in this research field.
- Identify a sample of Estonian tech firms that have implemented marketing innovations and design a data collection approach through interviews.
- Analyze the relationship between marketing innovations and firm performance using interviews with representatives from Estonian tech firms.
- Summarize findings and propose actionable recommendations for enhancing marketing innovation in Estonia's tech sector.

The first three tasks of this thesis will be addressed through a theoretical examination, combining insights from academic journals and prior empirical studies. This theoretical groundwork will clarify the concept of marketing innovation, outline its various types, and present the key metrics firms use to track marketing performance. By synthesizing existing research, these tasks build a solid foundation for the subsequent empirical investigation into how marketing innovations influence firm performance, specifically within the context of Estonia's tech industry. This dual focus, on both established theoretical frameworks and their

real-world applications will ensure that the study draws upon a robust knowledge base to shape its empirical design.

The remaining three tasks will be carried out in the empirical section, where the author will integrate data from interviews with representatives of Estonian tech firms. These interviews are intended to capture first-hand perspectives on the practical use of marketing innovations, including their benefits, challenges, and tangible impact on firm performance. The interview process will involve a semi-structured questionnaire, covering topics such as KPI selection, innovation strategies, and perceived performance outcomes. By systematically gathering and analysing these qualitative insights, the author aims to provide a nuanced picture of how marketing innovations are deployed in Estonia's rapidly evolving tech landscape and how they can best be measured and managed. Through this empirical analysis, the thesis will offer both theoretical refinements and actionable recommendations that stakeholders, such as marketing managers, executives, and policymakers, can use to improve innovation adoption, improve growth or strengthen the firm's competitive edge in digital markets.

Lastly, this research plans to contribute to societal and managerial understanding by highlighting effective marketing innovation practices tailored to the unique circumstances of tech firms operating in Estonia. By bridging established theories with real-world evidence, the thesis aims to support decision-makers in optimizing their marketing processes, deploying relevant KPIs, and prioritizing the most impactful innovation strategies. Beyond direct financial advantages, the findings may also guide tech companies in shaping organizational cultures that encourage experimentation and knowledge-sharing which in turn could facilitate a more adaptive and innovation-rich environment.

I would like to also express my sincere gratitude to my thesis supervisor, Andres Kuusik, for his valuable guidance, support, and feedback throughout this research. I would also like to extend my appreciation to all the professionals in the Estonian tech sector who generously agreed to participate in the interviews. Their insights and openness were instrumental in shaping the empirical foundation of this thesis.

KEYWORDS: Marketing innovation, firm performance, tech sector.

1. Theoretical Framework of Marketing Innovation in Firm Performance

1.1. Conceptual Foundations of Marketing Innovation

Innovation is widely recognized as a key driver of economic growth, competitiveness, and organizational success. It is broadly defined as the process of creating, developing, and implementing new or significantly improved products, services, processes, or business

models to address evolving market demands and opportunities (Mustapha & Hilmi, 2025). The Organization for Economic Co-operation and Development (OECD, 2018) describes innovation as the transformation of an idea into a solution that adds value to an organization and its stakeholders, emphasizing the importance of continuous improvement and adaptation in an increasingly dynamic business environment.

Innovation is not limited to technological advancements but encompasses the development of innovation ecosystems, operational efficiencies, and strategic partnerships that collectively contribute to value creation (Rentschler et al., 2025). It can happen at multiple levels of organization, ranging from improvements that refine existing processes to radical innovations that redefine industries. This dual nature of innovation ensures that organizations can respond to short-term market needs while positioning themselves for long-term growth (Abiodun, 2017). Moreover, innovation plays a critical role in enhancing a firm's adaptability in competitive markets (OECD, 2018). Firms can leverage new technologies such as artificial intelligence, big data, and cloud computing to streamline operations and improve customer experiences (Mustafa & Rinaudo, 2025).

Organizations that prioritize innovation are more likely to develop resilient business models, allowing them to navigate industry disruptions and market volatility (Awwad, Anouze, & Elbanna, 2025). Research suggests that fostering an innovation-oriented culture enhances firms' ability to anticipate shifts in consumer preferences and technological advancements, therefore ensuring their continued relevance in rapidly evolving industries (Lopez-De-Alba et al., 2025).

To fully understand the scope of innovation, it is helpful to consider its different forms identified in innovation literature. Innovation can take various forms, each contributing uniquely to organizational growth, competitiveness, and market sustainability. Different classifications allow firms to identify areas for improvement and allocate resources respectfully. Scholars have identified several key categories of innovation, with the primary types being product, process, organizational, and marketing innovations (Segarra-Blasco et al., 2025).

Product innovation refers to the introduction of goods or services that are new or significantly improved in terms of their characteristics or intended uses (Qu & Chen, 2018). This process encompasses not only the tangible aspects of a product but also the underlying systems and processes that facilitate its development. According to Qu and Chen (2018), the successful implementation of product innovation is deeply rooted in a firm's ability to leverage market knowledge and absorptive capacities, allowing for the effective assimilation

and application of external information. As firms navigate the competitive landscape, their market orientation drives the identification of customer needs, leading to the creation of innovative products that enhance their market position (Qu & Chen, 2018). Additionally, the study suggests that realized absorptive capacity acts as a mediator, enabling firms to transform collected market insights into practical knowledge, thus improving their product innovation performance.

Process innovation refers to the implementation of new or significantly improved production or delivery methods, which can enhance labor productivity and operational efficiency within a firm (Jaimovich, 2021). It involves technological advancements that allow firms to produce goods at a lower cost or improve the speed and quality of their output. By optimizing these processes, firms can achieve greater economies of scale and respond more effectively to market demands. The ability to innovate processes not only drives initial growth but also sets the stage for subsequent innovations in product quality (Jaimovich, 2021). The study suggests that process innovations are crucial for enhancing firm performance, as they often lead to reductions in operational costs and improvements in product delivery times, providing a significant competitive advantage in increasingly saturated markets.

Organizational innovation refers to the implementation of new practices, structures, or processes within an organization that significantly enhance its performance and capabilities (OECD, 2005). It plays a crucial role in fostering a dynamic and competitive environment by enabling organizations to adapt to changes and improve their operational efficiency (Wang et al., 2016). The need for organizational innovation has been underscored by the rapid evolution of market demands and technological advancements, particularly in sectors such as education, where institutions face increasing pressure to modernize and enhance their offerings (Wang et al., 2016).

Marketing innovation is a crucial aspect of a company's strategy, focusing on the development of new marketing methods that involve changes in product design, packaging, promotion, and pricing strategies (Ersun & Karabulut, 2013). It aims to enhance customer engagement and satisfaction, ultimately leading to improved competitive advantages in the global market (Ersun & Karabulut, 2013). According to the study, marketing innovation is not limited to introducing new products but also involves creating value through effective marketing practices that resonate with customers' needs and preferences. Firms that invest in marketing innovation often integrate their research and development (R&D), production, and marketing functions to enhance product and service offerings, which is essential for

outperforming competitors (Ersun & Karabulut, 2013). By strategically implementing marketing innovations, companies can differentiate themselves in highly competitive industries, ensuring sustained growth and market leadership.

Below, the author has compiled a table presenting different types of innovation along with their definitions, examples from Estonian tech firms, and their respective performance impacts to provide a clearer understanding of the concepts.

Table 1

Types of innovation and their contributions

Type of Innovation	Definition	Example from Estonian Tech Firms	Performance Impact
Product Innovation	Creating unique value propositions and branding strategies for goods/services.	Wise: Multi-currency account feature.	Increased brand recognition and loyalty.
Process Innovation	Implementation of new or significantly improved production, delivery, or support processes improving efficiency and quality.	Bolt: Real-time ride optimization app interface.	Improved operational efficiency and cost reduction.
Organizational Innovation	Implementation of a new organizational method in business practices, workplace organization, or external relations.	Bolt: Employee-focused communication for feedback and engagement.	Improved performance, workplace satisfaction and productivity.
Marketing Innovation	Implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion, or pricing.	Wise: Personalized, real-time user dashboards for managing international money transfers.	Drives greater market reach, boosts customer engagement and satisfaction, and strengthens firm positioning in competitive markets.

Notes. Examples from Estonian tech firms were compiled by the author based on publicly available information for illustrative purposes.

Source: compiled by the author based on information from Segarra-Blasco et al., (2025); Qu & Chen, (2018); Jaimovich, (2021); OECD, (2005); Wang et al., (2016); Ersun & Karabulut, (2013).

Table 1 summarizes the four primary types of innovation - product, process, organizational, and marketing innovation, highlighting their distinct contributions to firm performance and illustrating how they manifest within the Estonian tech sector. Notably, marketing innovation stands out among these categories as it directly transforms the way firms engage with customer perceptions, preferences, experiences, and conscience, playing an important role in shaping competitive positioning and driving growth.

Marketing innovation refers to the implementation of new or significantly improved marketing strategies, concepts, or practices that improve customer engagement, optimize competitive edge, and contribute to firm performance (Ievseitseva & Mihalatii, 2024). This type of innovation extends beyond traditional promotional activities, incorporating advancements in customer relationships, communication channels, and branding strategies (Mashiah, 2024). For tech firms in smaller economies, such as Estonia, marketing innovation plays a critical role in building a competitive edge by leveraging digital tools and data-driven insights to tailor strategies to consumer needs (Miftahuddin & Sutarno, 2024).

The Organisation for Economic Co-operation and Development (OECD, 2018) highlights that marketing innovation differs from technological advancements by focusing on aligning offerings with customer demands. It discovers that practices such as digital storytelling and personalized marketing campaigns illustrate how firms use emerging technologies like big data and machine learning to improve decision-making and create value. By integrating customer feedback with technological capabilities, firms can develop marketing innovations that drive growth while promoting customer loyalty (OECD, 2018).

Marketing innovation is recognized as a crucial component of an organization's overall innovation strategy, particularly within small and medium enterprises (SMEs) (Medrano & Olarte-Pascual, 2016). It is defined broadly to encompass activities that introduce new marketing methods, which significantly impact how products and services are promoted and sold to consumers (Tang, Zhang, & Peng, 2021). This type of innovation is essential for transforming products into profits and helps SMEs adapt to changing market conditions (Medrano & Olarte-Pascual, 2016). Despite its importance, research on marketing innovation has been limited, focusing predominantly on technological advancements (Purchase & Volery, 2020).

The interaction between marketing innovation and other types of innovation, such as product, process, and organizational innovation is also significant. It has been found that the introduction of new marketing methods positively influences the propensity of retailers to engage in various other forms of innovation, thereby creating a synergistic effect (Medrano &

Olarte-Pascual, 2016). Conversely, innovations in product, process, and organizational areas also foster an environment conducive to marketing innovations (Klewitz & Hansen, 2014). By establishing these interrelationships, the previous studies underscore the complex dynamics within the innovation ecosystem of SMEs, enabling managers to understand how best to leverage marketing innovation for enhanced business performance and adaptability in the retail sector.

To fully understand the strategic value of marketing innovation, it is essential to examine its various forms and applications within organizational settings. Different types of marketing innovation address specific facets of how firms interact with customers, manage branding, and utilize digital technologies. These categories not only reflect the multidimensional nature of marketing innovation but also help clarify how firms can leverage distinct approaches to improve performance, particularly in competitive and fast-evolving sectors like technology.

A growing body of literature underscores the importance of distinguishing between market-driven and market-driving marketing innovations (Peng, Quin, & Tang, 2021; Tang, Zhang, & Peng, 2021). Market-driven innovation involves reactive strategies that respond directly to existing consumer demands and market dynamics, thereby focusing on short-term adaptability and efficient cash flow management (Tang et al., 2021). By centering on enhancing established marketing practices (e.g., incremental adjustments in promotional tactics or minor product variations), firms can safeguard their competitiveness without radically overhauling existing market structures (Tang et al., 2021). In contrast, market-driving innovation takes a proactive stance by reshaping market conditions and anticipating future trends (Peng et al., 2021). Rather than merely reacting to consumer needs, organizations employing market-driving innovations aim to influence or create entirely new customer expectations, thereby fostering not only immediate but also longer-term revenue growth (Tang et al., 2021). For many small and medium-sized enterprises (SMEs), striking a balance between these two approaches is crucial: market-driven methods help them stay afloat in current markets, while market-driving initiatives enable them to seize new opportunities and sustain long-term growth (Peng et al., 2021).

Another prevalent framework for understanding marketing innovation revolves around changes to the traditional marketing mix - the “four Ps” of product, price, place (distribution), and promotion (Purchase & Volery, 2020). From this perspective, product-related innovations can involve transformations in design, branding, or user experience that offer unique value propositions, and may even blur the line between marketing and product

development (Purchase & Volery, 2020). Pricing innovations, often integral to maintaining competitiveness, encompass novel strategies like dynamic pricing, subscription models, or other mechanisms that adjust the cost structure in response to shifting market demands (Purchase & Volery, 2020). The promotion dimension of marketing innovation covers everything from new advertising formats to digital engagements, and even co-creation initiatives that directly involve consumers in the marketing process (Purchase & Volery, 2020). Placement or distribution innovations address how companies deliver goods and services, which can include nontraditional channels (e.g., online marketplaces) and strategic retail or distribution partnerships to broaden market reach (Purchase & Volery, 2020).

Focusing specifically on small and medium-sized retailers, Medrano and Olarte-Pascual (2016) identify a similar set of core marketing innovation types: design, pricing, promotion, and placement. In their study, design innovation involves modifying product aesthetics or functionalities to enrich consumer perception and appeal. Pricing innovation emphasizes dynamic or context-driven strategies to bolster competitiveness and adapt to evolving economic climates, while promotion innovations entail leveraging new communication tools or formats, such as social media campaigns or interactive digital advertising which is made to capture consumer interest (Medrano & Olarte-Pascual, 2016). Lastly, placement innovation refers to strategic alterations in distribution networks or retail footprints, which can be pivotal for retailers aiming to optimize product visibility and accessibility (Medrano & Olarte-Pascual, 2016). For SMEs in particular, deploying these distinct types of marketing innovation, independently or together, can lead to improved consumer engagement, operational flexibility, and overall business growth (Medrano & Olarte-Pascual, 2016).

Technological advancements have profoundly influenced the landscape of marketing innovation, particularly in areas such as digital advertising, social media, and data analytics (Lamoria et al., 2024; OECD, 2018). Lamoria et al. (2024) highlight how the rise of data-driven strategies enables highly targeted marketing campaigns, allowing firms to tailor their messages to specific consumer segments. This shift not only increases the efficiency of promotional activities but also fosters stronger brand loyalty by delivering highly relevant and personalized experiences (Lamoria et al., 2024). Meanwhile, the Oslo Manual from the Organisation for Economic Co-operation and Development (OECD, 2018) demonstrates digital channels and big data analytics as components of a modern marketing innovation. Through these tools, firms can fine-tune their promotional strategies, develop new pricing models (e.g., real-time or dynamic pricing), and enhance product design by leveraging real-

time customer feedback (OECD, 2018). This combination of marketing and technology illustrates the dynamic interplay between different marketing innovation types, where new product designs may require updated promotion tactics or pricing schemes, and vice versa.

Another crucial insight from the literature is that marketing innovation types often interact synergistically, rather than functioning in isolation (OECD, 2018; Purchase & Volery, 2020). For instance, market-driving strategies may hinge on disruptive product design elements that reconfigure consumer perceptions, while concurrent pricing and placement innovations enlarge their impact (Tang et al., 2021). Moreover, the digital transformation of marketing, encompassing everything from social media to advanced analytics, can improve both market-driven and market-driving approaches by supplying robust consumer insights and facilitating interactive, customer-centric experiences (Lamoria et al., 2024). Firms that effectively blend these main categories - design, pricing, promotion, tend to demonstrate more pronounced performance gains, particularly in challenging or highly competitive environments (Medrano & Olarte-Pascual, 2016; Peng et al., 2021). Notably, this multifaceted approach to marketing innovation is especially applicable for SMEs lacking the large-scale resources of bigger enterprises. By integrating various innovation types thoughtfully, SMEs can better adapt to prevailing market trends while simultaneously seeking fresh growth avenues (Medrano & Olarte-Pascual, 2016).

Scholarly discussion highlights that marketing innovation is neither monolithic nor constrained to a single best-practice approach. Instead, its complexity is best captured by examining multiple dimensions: from market-driven versus market-driving strategies (Peng et al., 2021; Tang et al., 2021) to design, pricing, promotion, and placement innovations (Medrano & Olarte-Pascual, 2016; Purchase & Volery, 2020) and the essential role of digital tools in modernizing these efforts (Lamoria et al., 2024; OECD, 2018). Taken together, these classifications underscore the breadth and depth of marketing innovation's potential impact. Whether leveraging real-time social media engagement, or co-creating with consumers, or structuring new pricing models, firms that utilize a balanced and multifaceted strategy stand confidently to enhance customer loyalty, sustain competitive advantage and to ultimately bolster overall performance.

To provide a concise overview of the main types of marketing innovation covered in the preceding discussion, Table 2 represents a structured summary of their key characteristics in regards to the market-driven or market-driving aspects. By offering a clear and side-by-side comparison, the table highlights how each form of innovation, whether design-oriented,

pricing-focused or promotion-oriented, can influence a firm’s competitiveness, strategy, and long-term growth.

Table 2

Main types of marketing innovation and their characteristics

Types of Marketing Innovation	Market-Driven	Market-Driving
Design Innovation	Market-driven approaches typically involve incremental updates informed by competitor trends or customer feedback, helping maintain relevance without major market shifts. Market-driving initiatives take a disruptive stance, introducing entirely new aesthetics or functionality that can reshape consumer expectations and set novel industry benchmarks.	
Pricing Innovation	Market-driven tactics often include short-term adjustments (e.g., discounts, price matches) to stabilize revenue and address immediate competitive pressures. Market-driving strategies, on the other hand, seek to redefine how consumers pay, utilizing innovative models (like subscriptions or dynamic pricing) that can shift perceived value and create new market norms.	
Promotion Innovation	When market-driven, firms refine existing channels (e.g., targeted social media ads or influencer partnerships) to maintain brand visibility. Market-driving promotion pursues bold, interactive formats (e.g., immersive events or co-creation with customers) that can transform brand perceptions and spark new forms of engagement.	
Characteristics	Reactive strategies focusing on existing customer preferences and current market conditions; emphasizes efficiency in managing cash flow and mitigating volatility.	Proactive approach where firms shape new consumer expectations and market trends; aims to create demand rather than merely respond to it.

Source: compiled by the author based on information from Lamoria et al. (2024); Medrano & Olarte-Pascual (2016); OECD (2018); Peng et al. (2021); Purchase & Volery (2020); Tang et al. (2021).

As illustrated in Table 2, marketing innovation comprises a diverse set of practices that can influence everything from a firm’s agility in responding to market shifts to its ability to build enduring customer relationships. Rather than functioning in isolation, these innovation types often complement one another, especially in dynamic industries, where design changes may boost the effectiveness of new pricing strategies, or digital tools may amplify promotion campaigns. Although each type carries distinct implications for a firm’s competitive position, the actual performance outcomes hinge on factors such as

organizational culture, resource allocation, and the strategic fit between innovation efforts and market demands.

1.2. Role of Marketing Innovation in Firm Performance

Having now established the conceptual foundations of innovation and marketing innovation in fostering competitive advantage, it is important to consider how these varied approaches influence firm performance. Market-driven strategies help businesses stay competitive in established markets, stabilizing revenue streams and mitigating cash-flow uncertainty, while market-driving efforts create new demand and can propel long-term revenue growth (Peng, Quin, & Tang, 2021; Tang, Zhang, & Peng, 2021). Likewise, design innovations often strengthen brand appeal and differentiation, pricing innovations help maximize profitability and market positioning, and promotion innovations boost customer reach and brand awareness (Lamoria et al., 2024; Medrano & Olarte-Pascual, 2016; Purchase & Volery, 2020). By offering these distinct performance pathways, whether through incremental improvements or transformative market disruption, marketing innovation ultimately shapes how firms adapt, grow, and thrive in fast-evolving environments.

To capture these impacts with clarity, the following sections explore how marketing is measured in companies, focusing on measurement systems and practices that demonstrate the true value of marketing innovation. The appropriate metrics are crucial for aligning strategic goals, evaluating short- and long-term effects, and facilitating agile responses to consumer needs.

Marketing performance measurement is a critical aspect of strategic management, enabling firms to assess the effectiveness of their marketing strategies and their contribution to overall business success. Effective measurement allows firms to optimize their marketing efforts, align them with business objectives, and gain a competitive advantage in dynamic market environments (Tajeddini, Trueman, & Larsen, 2010). Traditionally, marketing performance has been evaluated using a combination of financial, customer, and operational metrics that provide insights into the return on investment (ROI) of marketing activities and their impact on market positioning (Al-Gasawneh et al., 2025).

Measuring marketing effectiveness has become a central concern for organizations aiming to justify marketing investments and demonstrate tangible contributions to overall business performance. Recent research underscores that effective measurement extends well beyond financial indicators; instead, it calls for a balanced approach that includes both quantitative and qualitative metrics (Gaskill & Winzar, 2013; Morgan et al., 2022). While the focus on accountability and return on investment (ROI) has intensified in a competitive

global environment, many companies still grapple with identifying an optimal set of metrics that capture the complete impact of their marketing initiatives (Nielsen, 2023). Supporting this view, O'Sullivan and Abela (2009) confirm that robust marketing performance tracking correlates strongly with financial outcomes, while Rubera and Kirca (2012) reinforce the broader strategic value of marketing innovativeness across varied industries and firm sizes.

Morgan et al. (2022) highlight the importance of implementing a structured marketing performance assessment (MPA) process, which operates as a multidimensional control system. Within this framework, firms track marketing inputs, activities, and outputs in alignment with strategic goals. By incorporating a variety of metrics, ranging from brand equity to customer satisfaction, MPA provides both internal and external perspectives on marketing success. In this view, measurement systems should not only emphasize immediate revenue gains but also longer-term indicators of brand strength and customer loyalty (Morgan et al., 2022). A key challenge, however, is ensuring that the selected metrics truly match the firm's strategic priorities. If misaligned, even the most robust MPA system may produce inaccurate or insufficient insights for decision-makers (Morgan et al., 2022).

The balance between financial and non-financial indicators is a recurrent theme across the literature. Gaskill and Winzar (2013) propose a dual focus on quantitative metrics, such as return on marketing investment (ROMI), as well as more qualitative measures, such as customer satisfaction and brand equity. This balanced approach aims to capture both immediate financial contributions and leading indicators of future performance. Such non-financial metrics can be especially relevant in high-technology environments, where product life cycles and customer preferences evolve rapidly (Gaskill & Winzar, 2013). In essence, a single-minded focus on short-term revenues could mask deeper issues like declining brand perception or stagnating customer loyalty, which may undermine profitability in the long run (Gaskill & Winzar, 2013).

The growing significance of marketing analytics represents another key development. Moorman (2022) observed from his CMO Survey a substantial increase in analytics budgets, reflecting widespread recognition of data-driven insights as catalysts for strategic marketing decisions. In nearly half of the companies surveyed, analytics already play a major role in shaping marketing activities (Moorman, 2022). Moreover, business-to-consumer (B2C) product companies and medium-to-large enterprises appear to invest more aggressively in analytic capabilities, potentially leveraging their larger budgets to refine audience segmentation, personalize campaigns, and assess performance metrics in near real-time

(Moorman, 2022). These practices underscore a strategic pivot toward evidence-based decision-making that links marketing activities more explicitly to firm-level outcomes.

Despite the promise of data analytics, measuring marketing success across digital and cross-media channels remains problematic. The Nielsen Annual Marketing Report (2023) warns that confidence in ROI tracking for digital channels lags behind marketers' acknowledgment of their importance. Even though most professionals incorporate multiple measurement tools and often to adapt to fragmented media environments, this multiplicity can complicate attempts to gain a unified view of audience behavior (Nielsen, 2023). For example, streaming and connected TV (CTV) have grown in prominence, yet fewer than half of surveyed marketers believe they are effectively measuring results in this channel (Nielsen, 2023). The proliferation of tools and inconsistent methodologies further underscores the need for a more integrated and media-agnostic approach that fosters better comparisons and robust ROI calculations.

The Atlantic International University (n.d.) emphasizes that marketing measurement systems (MMS or MPM) must align squarely with overarching business objectives. Firms that focus on customer retention, for instance, might prioritize metrics such as customer lifetime value (CLV) and customer satisfaction scores (CSAT) instead of short-term revenue (Atlantic International University, n.d.). Conversely, an organization seeking rapid market expansion would benefit from tracking metrics related to acquisition cost (CAC) and market share. Striking an appropriate balance of financial and non-financial KPIs ensures that the measurement framework addresses both immediate and extended horizons of value creation. By adopting data visualization tools and fostering a continuous improvement culture, businesses can iterate on these measurement processes and remain agile in fast-changing market contexts (Atlantic International University, n.d.).

Overall, the literature agrees on a few foundational points: Marketing must demonstrate accountability, metrics should be carefully aligned with strategic priorities, and combining financial with non-financial indicators yields a more holistic evaluation of effectiveness (Gaskill & Winzar, 2013; Morgan et al., 2022). Moreover, analytics capabilities and cross-media measurement techniques are evolving to meet the demand for real-time and data-driven insights, although complexities in digital channels also highlight the ongoing need for methodological upgrades (Moorman, 2022; Nielsen, 2023).

Building on these insights, key performance indicators (KPIs) emerge as a pivotal mechanism for ensuring accountability and strategic alignment within marketing. By translating broad measurement principles into specific, quantifiable targets, KPIs offer a

structured approach to tracking progress, refining tactics, and ultimately reinforcing marketing's role in driving organizational success (Onabokun, 2024).

Key performance indicators (KPIs) are critical tools for evaluating the success and efficiency of marketing activities in achieving business objectives (Onabokun, 2024). They provide a structured and quantifiable framework for measuring various aspects of marketing performance, offering valuable insights into customer engagement, financial outcomes, and operational efficiency (Onabokun, 2024). The selection and implementation of appropriate KPIs allow firms to align their marketing strategies with business goals, track progress, and make data-driven decisions (Onabokun, 2024).

Zabolotnyi and Moshchenko (2024) highlight several key dimensions relevant to KPI development, particularly in the context of IT services. These include metrics such as compliance with accessibility standards, levels of user satisfaction, and the responsiveness of organizations to accessibility-related issues. The authors emphasize the value of leveraging automated testing tools to streamline data collection and monitor performance against these KPIs. Such tools not only enhance the precision of performance evaluations but also support continuous service improvement by providing actionable insights into user needs. Overall, this KPI framework is intended to improve service quality and usability while reinforcing the organization's alignment with industry best practices and competitive benchmarks (Zabolotnyi & Moshchenko, 2024).

Despite the advantages of using KPIs, challenges persist in their implementation. Rehman & Lancon (2024) highlight the difficulties of selecting relevant KPIs that align with strategic goals and integrating multiple data sources for accurate performance tracking. Furthermore, organizations must balance short-term and long-term metrics to gain a comprehensive understanding of marketing effectiveness (Rehman & Lancon, 2024).

Establishing an effective key performance indicator structure is vital for measuring, managing, and enhancing marketing innovation outcomes. Although many organizations have historically relied on a handful of legacy KPIs to gauge performance, recent literature suggests the need for more dynamic, holistic, and context-specific KPI frameworks (Kaganski, Eerme, & Tungel, 2019; Schrage et al., 2024). By refining their KPI structure, companies can obtain richer insights into evolving consumer preferences, align teams around shared objectives, and drive sustained improvements in both marketing and overall firm performance.

One of the notable drivers behind this shift is the growing role of artificial intelligence (AI) in transforming stagnant or purely quantitative metrics into more adaptive performance

measures (Schrage et al., 2024). For instance, AI integration enables real-time data analysis, allowing firms to track customer engagement and other leading indicators of marketing success. Schrage et al. (2024) highlight that companies using AI to overhaul their KPI frameworks are three times more likely to achieve significant financial gains compared to those that do not. This modernized KPI structure helps unite cross-functional teams by fostering shared accountability; rather than merely reporting historical data, organizations can proactively identify and respond to emerging trends in consumer behavior. Essentially, AI-powered KPI systems replace rigid “lagging” indicators with responsive, “leading” ones that capture early signals of success or failure, thereby informing timely strategic adjustments (Schrage et al., 2024).

Building on this concept, Kaganski et al. (2019) propose categorizing KPIs into direct, indirect, and suggested metrics, each fulfilling a unique role within the broader performance-measurement landscape. Direct KPIs map closely to specific marketing or operational outcomes, for example, conversion rates or return on marketing investment (ROMI), while indirect KPIs synthesize multiple data points (e.g., composite indexes that combine brand sentiment and online engagement). In contrast, suggested KPIs may not be fully validated but are identified through exploratory analyses or expert insights, warranting further investigation (Kaganski et al., 2019). This tripartite structure allows firms to balance short-term, easily quantifiable results with exploratory metrics that might uncover new drivers of marketing performance. Kaganski et al. (2019) also recommend employing Enterprise Analysis Models (EAM) and structured questionnaires to identify the KPIs most relevant to an organization’s unique strategic goals. In doing so, companies foster alignment across departments and encourage employees to feel vested in the measurement process, an alignment that is often crucial for integrated marketing initiatives.

When examining marketing innovation specifically, an effective KPI structure must reflect the complexities of bringing new ideas to market. Stundziene et al. (2024) note that while organizations often track a wide range of metrics to evaluate innovation, many indicators remain fragmented or insufficiently linked to concrete outcomes. One way to address this challenge is to implement three-level aggregation (major, moderate, minor) for each KPI, ensuring clarity about an indicator’s relative weight or priority in the broader evaluation scheme (Stundziene et al., 2024). This approach not only facilitates a nuanced understanding of which marketing innovations deliver the most significant returns but also clarifies how those returns manifest, whether as incremental boosts in brand awareness or more transformative gains in market share. Standardizing these metrics across different

departments, e.g., product development, sales, and marketing, further enhances consistency, enabling marketing teams to more convincingly demonstrate the value of their innovations (Stundziene et al., 2024).

Todorov et al. (2024) emphasize that KPI structures should integrate both quantitative (e.g., revenue growth, leads generated) and qualitative (e.g., customer satisfaction, brand loyalty) measures. By doing so, organizations gain a more complete view of how their marketing innovations influence firm performance. For example, a surge in short-term revenue might appear promising but could coincide with declining customer satisfaction, thereby posing long-term risks (Todorov et al., 2024).

As digital transformation reshapes consumer engagement, digital marketing innovation introduces an extra layer of complexity to KPI structures (Moghadasnian & Amanpour, 2024). Yawised and Apasrawirote (2022) argue that companies must expand KPI frameworks to assess intangible but high-impact factors, such as brand advocacy on social media, viral reach, or even Digital Marketing Innovative Capabilities (DMIC). In many cases, organizational agility and absorptive capacity directly affect how firms utilize digital tools, yet these capabilities do not always translate to measurable performance gains unless linked to the right KPIs (Yawised & Apasrawirote, 2022). Thus, selecting performance indicators that capture both the tangible and intangible consequences of digital marketing initiatives can illuminate previously hidden opportunities or vulnerabilities.

Bringing these insights together, it becomes evident that KPI structure is not merely an administrative exercise but rather a strategic process that directly impacts the efficacy of marketing innovation. Modern KPI frameworks are increasingly data-driven, collaborative, and flexible, accommodating both established metrics and potential “suggested” indicators that may unlock new strategic insights (Kaganski et al., 2019). Whether leveraged through AI tools, aggregated in tiered systems, or aligned specifically with innovation goals, these structures ensure that organizations can respond quickly to emerging market changes and derive lasting value from their marketing activities (Schrage et al., 2024; Stundziene et al., 2024). Ultimately, a well-designed KPI structure fosters greater cohesion across diverse business functions, elevating marketing’s strategic role and enabling firms to achieve sustained, innovation-driven growth.

While an effective KPI structure is critical for quantifying marketing outcomes, it is equally important to consider the broader organizational factors, such as market orientation, that inform how marketing insights translate into performance gains. Market orientation, encompassing activities like intelligence gathering, cross-functional collaboration, and

coordinated action, can substantially influence a firm’s ability to channel innovative ideas into tangible results. As shown in Figure 1, this framework illustrates how specific marketing innovation types like pricing, design, and promotion, are guided by market orientation and ultimately contribute to superior sales growth and profitability.

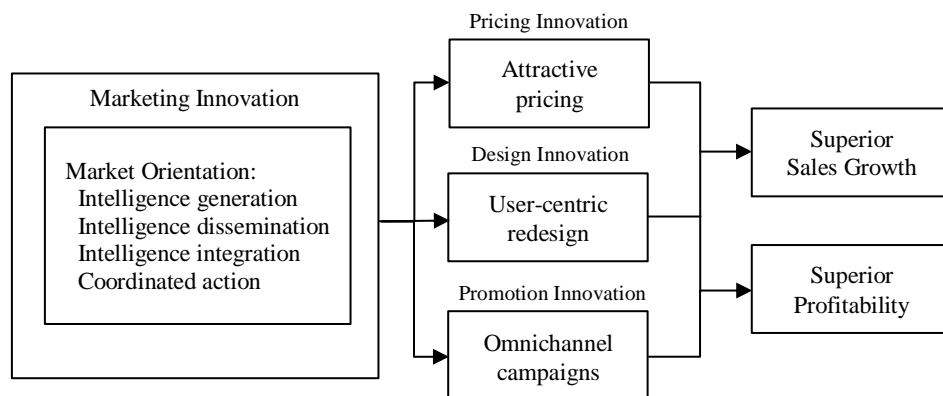


Figure 1. The Impact of Market Orientation on Key Outcomes and Firm Performance

Source: compiled by the author based on the reading from Mohr, Sengupta & Slater (2014); Lamoria et al. (2024); Medrano & Olarte-Pascual (2016); OECD (2018); Purchase & Volery (2020).

As demonstrated in the figure, market orientation not only drives incremental or disruptive changes in design, pricing, and promotional tactics, but also ensures that each innovation reflects actionable insights about customers and the competitive landscape. By aligning these market-oriented activities with a well-defined KPI framework, firms can capture the full breadth of their innovation efforts, from intelligence generation and inter-departmental synergy to measurable gains in sales and profit. This holistic alignment underscores the dual importance of strategic intent (market orientation) and precise metrics (KPI structures), ensuring that innovation remains both empirically validated and highly responsive to evolving market conditions.

While the influence of market orientation and well-structured KPIs is evident across many industries, the broader economic environment can also shape how marketing innovations take root. In smaller markets, such as Estonia, firms often face unique constraints and opportunities that compel them to adapt their innovation strategies in distinct ways. Understanding these contextual factors is crucial for appreciating how marketing innovations, especially those grounded in digital tools and global outreach, translate into measurable performance gains and competitive advantage.

Small economies face unique challenges and opportunities in adopting and implementing marketing innovations. Limited domestic markets often push firms in these

economies to adopt external-facing strategies, relying on marketing innovation to enhance their competitiveness in international markets. Marketing innovation in such contexts combines adaptive processes with novel approaches, aimed at improving customer outreach, brand differentiation, and market positioning. As highlighted by Miftahuddin and Sutarno (2024), firms in small economies leverage digital marketing innovations, such as personalized branding and omnichannel outreach, to overcome geographic constraints and attract global customers.

The relationship between marketing innovation and firm performance has been widely studied, with researchers emphasizing its role as a key driver of market adaptability and competitive advantage. Gunday et al. (2011) provide a foundational framework for understanding the impact of various types of innovation, including product, process, organizational, and marketing innovations, on firm performance. While product and process innovations primarily enhance internal workflows and production efficiency, marketing innovation focuses on improving market performance through enhanced customer engagement and strategic positioning (Gunday et al., 2011). This distinction underscores the importance of marketing innovation in tech-driven small economies like Estonia, where customer-facing strategies are pivotal for international competitiveness.

Empirical studies also shed light on the methodologies used to analyze the relationship between marketing innovation and firm performance. For example, Jung and Shegai (2023) utilized surveys combined with structural equation modeling (SEM) to explore how digital marketing innovations indirectly affect performance through improved marketing capabilities. This method excels at uncovering causal relationships and identifying mediating factors, offering valuable insights into the internal mechanisms that enhance the impact of marketing innovation. However, it requires high-quality data to ensure the reliability of findings.

Gunday et al. (2011) employed cross-sectional regression analysis, which allowed for a broader comparison of different types of innovation and their respective impacts on firm performance. This method is particularly effective for understanding the relative contributions of various innovations, such as marketing, product, and process innovations, within a single framework. However, its static nature limits its ability to capture changes over time, making it less suitable for analyzing the dynamic effects of innovation in rapidly evolving markets.

Sõna et al. (2024) introduced a cutting-edge approach by employing AI-driven web mining techniques to analyze firms' online content. This methodology leverages real-time

data to detect patterns and trends in marketing innovation, offering a cost-effective alternative to traditional survey-based methods. By focusing on digital visibility and online communication, this approach highlights the public-facing nature of marketing innovation, particularly in small economies with export-oriented strategies. However, the predictive strength of this method is weaker for less visible innovations, such as product and process innovations, underscoring the distinct characteristics of marketing innovation.

The findings of these studies reveal the complementary nature of their approaches. Jung and Shegai (2023) focus on the mediating role of marketing capabilities, providing insights into how firms can maximize the benefits of digital marketing innovations. In contrast, Gunday et al. (2011) offer a holistic view of innovation types, framing marketing innovation as a critical component of a broader innovation strategy. Sõna et al. (2024) emphasize the role of digital tools in showcasing marketing innovation, particularly for smaller firms with strong online visibility. These studies illustrate the multidimensional impact of marketing innovation on firm performance and the diverse methodologies used to explore this relationship.

For better visual comparative analysis, Table 3 will demonstrate side-by-side comparison with different methodologies, findings, etc.

Table 3

Analysis of empirical studies

Aspect	Jung & Shegai, (2023)	Gunday et al., (2011)	Sõna et al., (2024)
Methodology	SEM with survey data from 100 firms	Cross-sectional regression analysis	Web mining and AI (SHAP) from websites
Focus	Digital marketing innovation and firm performance	All innovation types and performance	Predicting innovation from website data
Findings	Marketing innovation improves performance via marketing capability (mediator); impact varies by firm size	Marketing innovation improves market performance; other types drive efficiency and financial outcomes	Marketing innovation most predictable via web content; weaker for other innovation types
Strengths	Causal insights; firm-size moderation effects	Comparative framework for innovation types	Unique and cost-effective AI-based insights

Source: compiled by the author based on data from Jung & Shegai, (2023); Gunday et al., (2011); Sõna et al., (2024).

Although the wider literature encompasses numerous other studies and nuances, these particular selections showcase the most common methodological strands, from traditional statistical analyses to advanced digital tools, thereby providing a practical review of how researchers investigate the link between marketing innovation and firm performance across diverse contexts. Taken together, these three articles offer a representative cross-section of the principal methodological avenues explored within marketing innovation research. Jung and Shegai (2023) illustrate a survey-based, causal modeling approach, Gunday et al. (2011) demonstrate a comparative, cross-sectional design, and Sõna et al. (2024) reveal a data-driven, real-time method.

Researching this relationship can indeed be approached from multiple methodological perspectives. While quantitative methods, such as surveys combined with structural equation modeling (SEM) or regression analysis, have historically dominated the field (e.g., Jung & Shegai, 2023; Gunday et al., 2011) with some emerging approaches, like AI-based web mining which offer real-time insight into marketing behaviors (Sõna et al., 2024), they may struggle to fully capture contextual complexity, organizational dynamics, and the deeper motivations, decisions, or strategic nuances behind observed patterns, particularly within small and medium-sized enterprises (SMEs).

2. Empirical Research in the Estonian Tech Sector

2.1. Data and Methodology

While different quantitative studies offer valuable generalizations and statistical rigor, they often rely on predefined constructs and metrics, limiting their ability to uncover firm-specific strategies, contextual drivers, and emerging practices. To address these limitations, qualitative research methods, such as in-depth interviews, case studies, and thematic analysis, have gained traction as powerful tools for exploring how and why marketing innovations are implemented, and how firms perceive their impact on performance.

For instance, semi-structured interviews with marketing and innovation decision-makers enable researchers to investigate themes such as KPI usage, the rationale behind marketing innovation decisions, and internal processes of performance evaluation. These methods are particularly suited for capturing nuanced and real-world perspectives, such as those emerging in rapidly developing tech sectors like Estonia's, where resource limitations, agility, and digital capabilities play a key role in shaping innovation outcomes.

Accordingly, this thesis adopts a qualitative, interview-based research design to explore how Estonian tech firms develop and evaluate marketing innovations and how these efforts relate to firm performance. By capturing detailed, real-world perspectives, it aims to

highlight the mechanisms, perceptions, and contextual factors that shape innovation outcomes, factors that quantitative models alone may overlook. In doing so, this study complements existing quantitative research while also filling the gap with qualitative interviews which offer a fresh and exploratory perspective on a topic of increasing importance to the scholars and practitioners.

The sample for this research consists of tech firms operating in Estonia that have demonstrated marketing innovation in recent years. The selection process involves identifying firms that have integrated novel strategies or significantly improved their marketing practices, using industry reports, awards and public data as criteria. The sample includes firms of varying sizes, from startups to medium-sized enterprises, to ensure diverse perspectives and insights into the role of marketing innovation in different organizational contexts. To get the most relevant information, the author will conduct interviews with marketing managers, executives, or decision-makers directly involved in marketing strategy development and execution.

The author contacted Estonian tech firms using publicly available email addresses found on company websites and relevant professional directories. A total of 22 companies were approached, out of which five agreed to participate in the interview process, while seven declined or were unavailable, and the remaining did not respond. The outreach process was designed to be neutral and non-leading, and therefore, the exact emphasis on "marketing innovation's link to firm performance" was deliberately softened in initial messages to ensure more authentic and unbiased reflections during the interview process.

The interview questions are designed to explore how marketing innovation is understood and practiced within tech firms. To ensure a coherent and focused analysis, the questions were organised into four thematic blocks: conceptual understanding and types of marketing innovation; marketing role in firm performance and key performance indicators (KPIs); the role of digital tools and Estonia's tech environment; and internal organisational factors and future outlook. This grouping structure merges closely related themes for analytical clarity and the questions were formed basen on the theoretical background discussed in subchapters 1.1 and 1.2, allowing for a strong connection between theory and empirical findings. (Appendix A)

The themes cover definitions and interpretations of marketing innovation, the specific types and approaches adopted, particularly in terms of whether they are market-driven or market-driving, as well as their perceived connection to firm performance. Participants are

also asked to reflect on how marketing innovation interacts with other innovation areas and what key performance indicators (KPIs) are used to evaluate its success.

Further focus is placed on the use of digital tools and data-driven technologies in supporting innovative marketing practices. Additionally, the interviews address the unique context of Estonia's tech sector, including local challenges and advantages, and delve into internal organizational factors that influence the adoption of marketing innovations.

Lastly, participants are encouraged to share forward-looking perspectives on how their innovation strategies may evolve in the future. These questions aim to provide a comprehensive understanding of the factors influencing marketing innovation and its contribution to firm performance.

To clarify how the thesis objective is addressed, Figure 2 presents the main steps of the empirical research process.

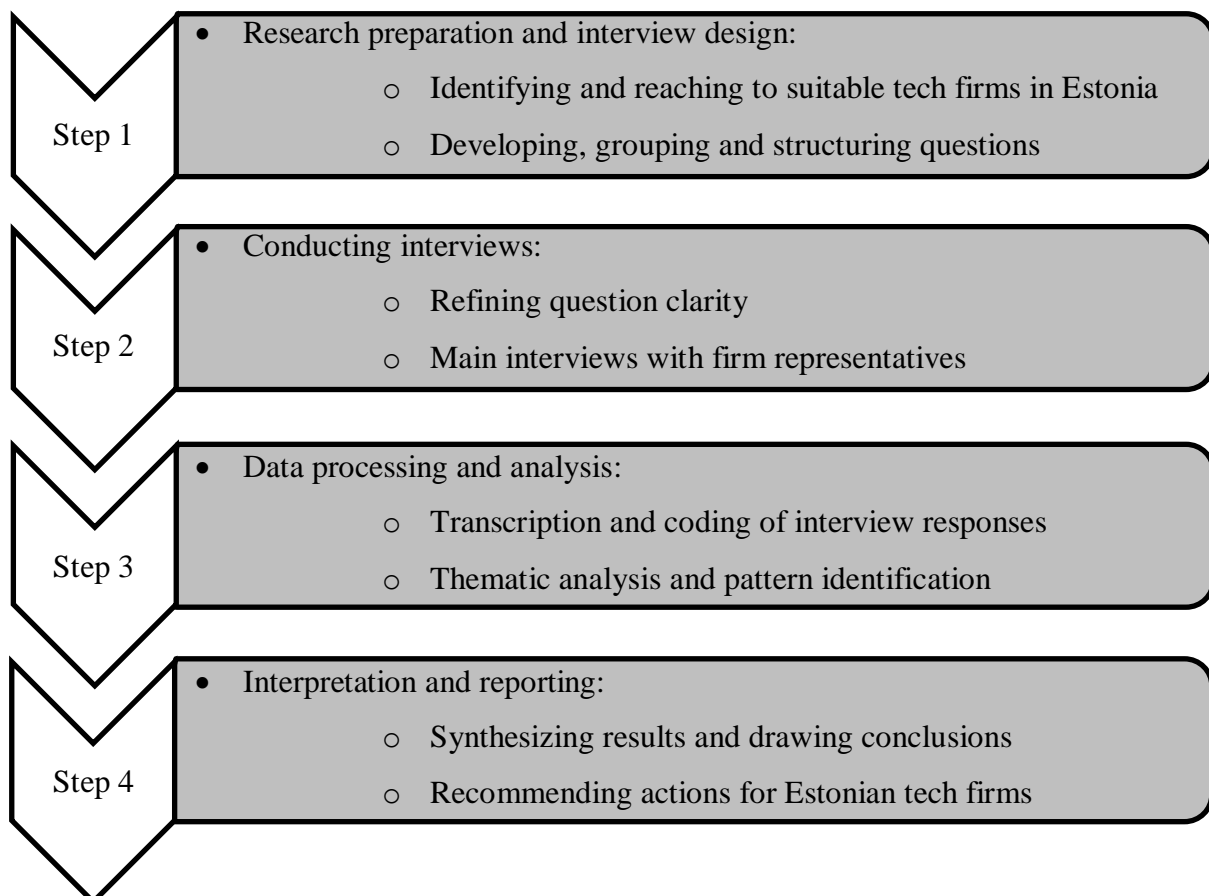


Figure 2: Structured Research Process for Empirical Investigation

Source: compiled by the author

The author has conducted a total of five interviews for this bachelor thesis. The completed interviews include participants holding the positions of Head of Growth Marketing, Head of Regional Growth, CEO and Marketing Manager. These individuals were

contacted to represent a range of strategic and executive roles across the Estonian tech sector, offering valuable insights into how marketing innovations are developed and evaluated. Most interviews were conducted via Zoom and WhatsApp, while one participant opted to respond in written form due to scheduling constraints. All interviews were recorded or documented with the participants' consent.

The initial segment of each interview focused on understanding the professional backgrounds of the participants, including their roles and experience within the tech sector. This information served to contextualize their perspectives on marketing innovation, allowing the author to better interpret their responses throughout the discussion.

Moreover, to accommodate the diverse communication preferences of the participants, the interview guide was carefully prepared in English, Russian and Estonian. This ensured clarity, accessibility, and comfort for all respondents, regardless of their preferred working language. While most interviews were conducted in English, one participant chose to provide written responses in Estonian. This flexible approach fostered a more open and comfortable atmosphere, encouraging candid and reflective input on the topic of marketing innovation within their organizational context.

The interviews were carried out between March and early May, with details regarding the format, interview dates, participants' roles, duration, and transcript length presented in Table 4 below.

Table 4

Interviews description

Interviewee	Position of the interviewee	Date	Duration	Transcription length	Format
1	Head of Growth Marketing	22/03/2025	58 minutes	12 pages	Zoom (video)
2	Head of Regional Growth	25/03/2025	69 minutes	13 pages	Zoom (video)
3	Chief Executive Officer	12/04/2025	-	4 pages	Written responses
4	Marketing Manager	02/05/2025	65 minutes	14 pages	WhatsApp (video)
5	Marketing Manager	06/05/2025	63 minutes	12 pages	Zoom (video)

Source: compiled by the author based on the conducted interviews.

Table 4 shows that the sample spans several senior functional roles: marketing-growth, regional expansion, and executive leadership, all within Estonia's tech ecosystem. Using both synchronous (video) and asynchronous (written) formats, the study captures perspectives that range from strategic decision-making to day-to-day growth operations. The interviews were conducted between late March 2025 and early May 2025. The duration of interviews ranged from 58 to 69 minutes, except for one respondent who provided written answers, resulting in a shorter transcript. Transcription lengths varied from 4 to 14 pages, amounting to a total of 55 pages across all five interviews.

The author has used two specialised tools to improve the empirical work. TurboScribe tool was used to transcribe all interview recordings, delivering accurate text that could be easily verified against the audio and exported in formats for further processing. Then the data were imported into MAXQDA, which supported systematic open coding. Its visualisation features improved the identification of dominant themes within each of the four analytical blocks and highlighted direct comparisons between interview insights and the theoretical concepts. Together, these tools improved the flow and efficiency of the qualitative analysis.

To ensure a structured analysis, the interview data were examined using thematic coding aligned with the core concepts introduced in the theoretical chapter. The goal was to organise responses into coherent thematic clusters that reflect how Estonian tech firms approach marketing innovation and evaluate its outcomes. Coding segments ranged from a few words to full phrases, depending on the clarity and completeness of the expressed ideas. Repeated points were recoded when they added depth to earlier statements, and also the idea was not to introduce performance-related terms until mentioned by the interviewee. This approach ensures consistency and authenticity, which provides a transparent link between the empirical material and the theoretical concepts which is applied in the following analysis.

2.2. Analysis and Results

To ensure a systematic comparison across firms, the interview guide was reorganised into four overarching analytical blocks that mirror the logic of the questionnaire: (1) conceptual understanding and types of marketing innovation, (2) marketing role in firm performance and key performance indicators (KPIs), (3) the role of digital tools and Estonia's tech environment, and (4) internal organisational factors and future outlook. Grouping the questions in this way connects the empirical discussion to the key dimensions identified in the theoretical chapter, conceptual foundations, measurement, technological enablers, and organisational drivers, while also allowing responses from executives, marketing managers and CEOs to be read side-by-side.

This thematic approach supports also a narrative that moves from foundational understanding toward practical application and strategic outlook, which provides a comprehensive view of how marketing innovation contributes to firm performance within the Estonian tech sector.

The subsequent coding followed a hybrid approach. Broad themes (the four blocks above) were specified deductively before analysis began, providing a common structure for every transcript, but individual codes, however, were derived inductively as separate ideas or examples surfaced in the data. This combination retained theoretical coherence without constraining emergent insights, which results in capturing both cross-case regularities and firm-specific nuances.

For transparency, the author compiled concise coding tables for each theme, noting representative quotations and the frequency of recurring ideas.

The first theme is about the conceptual understanding and types of marketing innovation (Table 5). This topic is essential to analyse in order to connect the interview data with the theoretical claim that marketing innovation spans far more than promotional tweaks and often blends reactive and proactive market logics.

Table 5

Theme 1: Conceptual understanding and types of marketing innovation

Name of the theme	Codes from the interviews	Corresponding category
Conceptual understanding and types of marketing innovation	- Novel way of creating, communicating, or capturing value - Implementation of a new marketing method - Significant changes in service design - Trying out new AI tools and methods	Conceptual definition
	- Dynamic usage-based pricing - Freemium tier - Micro-influencer partnerships - New promotional channels - Website redesign	Implemented innovation types
	- Explicitly market-driven - Hybrid market-driven/driving - Proactively shaping demand	Strategic orientation (market-driven vs market-driving)

Source: compiled by the author based on coding results

A unifying insight across the five interviews is that respondents treat marketing innovation as purposeful novelty rather than cosmetic promotion. Interviewee 1, for example, calls it *“any deliberately novel way of creating, communicating, or capturing value”* and immediately links the idea to an evidence-driven experimentation measure. This definition mirrors the OECD (2018) requirement that an innovation produces a significant change in design, pricing, or promotion, and repeats Purchase & Volery (2020) warning that marketing innovation often bleeds into product and process domains. Interviewee 3 adds to the picture with a triad of channelling, automation and levels of communication, underscoring technology-enabled micro-interactions that extend well beyond advertising copy. Taken together, the statements confirm Lamoria et al.’s observation (2024) that contemporary marketing innovation is inseparable from digital infrastructure.

The empirical codes showcase how that broad concept translates into action. Most frequently cited are digital-first, hybrid innovations, like usage-based pricing tied to API calls, product-led freemium funnels and design tools/AI creative loops. These examples validate the theoretical claim that design, pricing, and promotion innovations rarely occur in isolation; instead, they reinforce one another to create an integrated value-delivery system (OECD 2018; Tang et al. 2021). They also show how small-market firms compensate for limited home demand by embedding global scalability, dynamic pricing, multilingual content, and influencer micro-segments, directly into their marketing experiments.

Strategic orientation also splits the sample but in a predictable way. Three interviewees position themselves as market-driving or hybrid, intentionally shaping latent demand through thought-leadership podcasts, compliance foresight, or ICP-redefinition workshops. Interviewee 1 quantifies the mix as about 60 % market-driving, 40 % market-driven, aligning with Tang, Zhang & Peng (2021) suggestion that tech SMEs must juggle both logics. By contrast, Interviewee 2 operates in the tightly regulated clinical-research niche and therefore remains explicitly market-driven which is an evidence that sectoral constraints and risk tolerance moderate an otherwise proactive impulse.

All five interviewee tie innovation success to agile, cross-functional governance. As Interviewee 5 puts it, *“we run weekly growth sprints where cross-functional pods ... design value transfers and ship them to like 5 - 10 % of traffic, and let the data decide what scales.”* This quote captures the organisational concept that theory flags as a prerequisite for turning creative ideas into measurable gains. Where formal ideas are infeasible, continuous training and multilingual knowledge-sharing substitute for structure, reinforcing Kaganski et al.’s (2019) call for capability-building around KPI systems.

The interviews also corroborate the literature’s warning that marketing innovation interacts synergistically with product and organisational change. Usage-based pricing demanded a new billing stack, the clinical-trial firm’s new data-collection method re-shaped both service delivery and promotion. Such logic corresponds to the Oslo Manual’s assertion that marketing, product, and process innovations are intertwined levers of performance.

Finally, the Estonian context amplifies, and sometimes constrains, these dynamics. Digital public infrastructure lowers the friction of global outreach, allowing market-driving experiments to scale quickly. The push-and-pull reinforces this study’s earlier theoretical proposition that sustained competitive advantage emerges when marketing ingenuity, organisational processes, and regulatory awareness evolve together.

The second theme is about the marketing role in firm performance and key performance indicators (KPIs) (Table 6). It explores how Estonian tech firms translate marketing innovations into measurable business results and how their metric systems evolve to keep that link reliable.

Table 6

Theme 2: Marketing role in firm performance and key performance indicators (KPIs)

Name of the theme	Codes from the interviews	Corresponding category
	- Revenue / NPS lift	Performance outcomes
	- Customer-loyalty lift	
	- Market-share gain	
	- Conversion efficiency	
Marketing role in firm performance and key performance indicators (KPIs)	- Tight cross-innovation coupling	Interaction with other innovations
	- Integral with operations and logistics	
	- Iterative product-marketing loop	
	- Compound innovation effect	
	- NRR	
	- Brand-equity index	KPI suite
	- Stakeholder-participation drivers	
	- NPS	
	- Engagement-funnel metrics	
	- ROI	
	- Time-to-asset	
	- Sales-growth	
	- Retention	

Source: compiled by the author based on coding results

A clear performance pattern cuts across all five cases. Every firm connects recent marketing moves to hard or proxy gains, with Interviewee 1 reports Monthly Recurring Revenue up and Net Revenue Retention at much higher rates, Interviewee 2 cites a seven-point jump in NPS, and Interviewee 3 highlights click-through lift and one-day asset turnaround. The codes Revenue / NPS lift and Conversion efficiency therefore go under “Performance outcomes” category, highlighting that, regardless of scale, firms perceive a direct, positive pay-off from marketing experimentation.

The interviews insist that such gains surface only when marketing travels with other forms of innovation. All five mention some version of tight cross-innovation coupling: whether it is usage-based pricing that needed a new billing stack or new AI-generated emails that really mattered because product teams shipped features faster to promote. As the Head of Growth Marketing puts it: *“marketing innovation is often the customer-facing expression of deeper product and organizational innovation.”* That single line captures the dominant logic which is that marketing is the visible tip of a multi-layered change effort, repeating the systemic view of innovation synergy discussed in the theoretical chapter.

But when turning to measurement discipline, three aspects stand out:

- From vanity to value. Two Interviewees openly describe abandoning impressions and social-engagement counts in favour of qualified traffic, pipeline velocity or time-to-asset. The vanity-to-quality shift illustrates a sector-wide development in KPI design.
- Retention over reach. Half the sample elevates NRR, NPS or some form of retention control above pure acquisition. This tilt toward activation-to-value and Retention metrics mirrors academic topics (e.g., Morgan et al., 2022) for balanced scorecards, yet rises organically from subscription and platform business models where lifetime value guarantees one-off wins.
- Iterative KPI refinement. All Interviewees describe periodic refinement or re-definition, whether swapping some concepts or dropping social engagement entirely. The redefined activation metric and KPI refinements show that KPIs are treated as flexible tools, not fixed instruments, confirming theory that agile organisations revisit metrics as learning accumulates.

Notably, tool sophistication separates practice. The company with the most granular KPIs also runs end-to-end AI lead scoring and dashboarding, whereas the simpler and more domestic firm relies on lighter tools and more qualitative read-outs.

While theory often debates market-driven versus market-driving postures, the empirical evidence here showcases compound effects: when product, process and marketing push in the same direction, performance gains multiply. That insight aligns with, but also implements, Purchase & Volery (2020) systemic view by showing the concrete KPI suites firms build to track this compounding effect.

The third theme is about the role of digital tools and the Estonian context in enabling marketing innovation, which overall explores how firms leverage technological platforms and navigate local conditions to implement and scale marketing innovation. This theme is critical to examine because it highlights not only the strategic use of digital infrastructure and AI-powered tools but also the constraints posed by Estonia's small market size, talent limitations, and regulatory context. Understanding these factors provides insight into how external enablers and barriers shape the depth and direction of marketing innovation efforts in the tech sector. The interview-derived codes are presented in appendix B.

Across the five responses a clear pattern emerges with baseline analytics stacks like HubSpot, Google Analytics and Hotjar which together act as a universal tool kit, but the depth of the stack, and therefore the ambition of marketing innovation, expands only where data volume and deal velocity warrant it. The Interviewee 4 highlights a Vertex AI pipeline that *"scores every inbound lead ... [and] feeds real-time offer personalisation like pricing bands, trial length, and recommended plan tiers."* But in the less data-rich settings, such as agri-tech, Framer acts as a lightweight tool for everything hub while bulk SMS handles outreach, showing that more advanced tools usually show up in companies that are early to adopt new tech and have a lot to gain from using it.

The Interviewees also mention an AI gradient. At one side, embedded models guide pricing, retention measures, and creative iteration, for others that's the use of AI in validating trial data to enhance credibility rather than revenue, and from the other side, generative tools act as copy assistants. This logic confirms the theoretical claim that AI only becomes performance-shifting when it moves from ad-hoc support to fully integrated decision loops (Lamoria et al., 2024).

Overall, the author has compiled the following structure of the responses which address the AI measurements (three-tier ladder):

- Embedded (Interviewee 1 and 5): end-to-end models guide pricing or retention actions and shorten creative cycles.
- Supportive (Interviewee 2): AI ensures data integrity in clinical trials, improving credibility more than topline growth.
- Experimental (Interviewee 3 and 4): generative AI is still a copy-assistant, repeats Lamoria et al. (2024) caution that tooling alone doesn't guarantee strategic lift.

Estonia's digital infrastructure acts as a potential accelerator, but only up to the limits of scale. Chief Executive Officers praise "*e-Residency [that] lets us onboard beta customers from 100+ countries without paper contracts.*". The same Interviewee, however, notes that paid-media experiments "saturate quickly" in a 1.3-million-person market, forcing early and expensive internationalisation. Talent shortages and policy grey zones further temper the upside with the Interviewee 4 admitting that data-privacy ambiguity could slow AI initiatives. These statements repeat small-economy liabilities mentioned in the literature, yet they also trigger adaptive behaviours, remote-first hiring, and cross-border funding grants, that keep experimentation cycles intact.

Sector context ultimately overrides firm size. The clinical-research company, bound by compliance, relies on industry-specific EDC (electronic data capture) systems, whereas the B2B start-up uses consumer-grade creative tools like Figma and Lottie to blur the line between product and promotion, an empirical confirmation of Purchase & Volery (2020) statement that digital marketing innovation often interlocks with product design. Tool choice therefore hinges on task environment and regulatory load, not simply on how big or well-funded a firm is.

Taken all of the statements and concepts together, the evidence highlights technology as an amplifier rather than an equaliser. Firms that align data infrastructure, organisational talent, AI measurements, and sector realities could potentially unlock near-real-time, micro-segmented marketing and those that lack one of these pieces adopt a pragmatic mix, simple SMS, specialist compliance tools, until conditions could permit deeper automation. And finally, Estonia's digital environments give companies a strong starting point for experimenting with marketing innovation, but it's how well each company matches its tools to its strategy and capabilities that decides how far and how fast they can actually go.

The fourth theme which is about the understanding of the internal processes and forward-looking expectations will explore how Estonian tech firms build the internal

structures, routines, and capabilities necessary to sustain marketing innovation over time. It also highlights how these firms manage the risks involved in experimentation and reveals their evolving expectations about where future marketing advantages are likely to emerge. This theme is crucial for understanding the organisational foundations behind innovation performance and the forward strategies that shape long-term competitiveness. Appendix C contains the set of codes generated from the interview analysis.

The most visible pattern is about structure, each company has re-configured teams or budgets to shorten the path from idea to market. Interviewee 4 states: “*we created a “Growth Group” ... a permanent squad of product managers, data scientists, marketers, and engineers*”, while Interviewee 3 puts it as: “*we moved designers into the growth squad ... so iteration happens in hours, not days, and carved out a 10 percent test fund*”. Head of Regional Growth relies on cultural scaffolding, strategy workshops and OKR cascades that break ambitions into executable initiatives and steps. These moves repeat organisational-innovation theory, which argues that cross-functional integration and ring-fenced resources build the dynamic capabilities needed to commercialise innovation quickly (OECD 2005).

Resource mechanisms complement structure. Interviewee 5 pinpoints three levers such as hiring data-science talent inside marketing, a flexible budget-allocation model, and external analytics partnerships that doubled the test-and-learn outputs in a year. Interviewee 2 who operates across multiple jurisdictions, treats English proficiency and continuous training as the integrating foundations for its distributed teams. Together these codes highlight two pathways to capability building: deepening technical expertise in-house or broadening human-capital cohesion across borders.

Despite different sectors, firms converge on a pragmatic risk doctrine. Tool fatigue and skills shortages top the list. Chief Executive Officer warns that “*burning cash on shiny tools we don’t fully use*” is the biggest threat, mitigated by 30-day pilots that kill any platform lacking demonstrable uplift. Other marketing managers point that the skills gap hits hardest: “*we sometimes wait months to recruit specialised analysts*”, while also worrying about channel drop-off when audience attention diminishes. These self-imposed guard-rails reflect best practice guidance from Kaganski et al. (2019) on aligning innovation with tiered KPIs and clear criteria to prevent resource drift.

Looking forward, every interviewee envisions a deeper fusion of AI and customer experience, though the form varies by domain. Interviewee 3 plans “*predictive lead scoring, auto-generated micro-videos, [and] real-time pricing suggestions*” fed by behavioural data,

the Chief Executive Officer dreams of embedding marketing inside its software through gamification and Head of Regional Growth focuses on maintaining data validity as trials move fully online. Such trajectories resonate with the literature on market-driving innovation, which is when once core processes are digitised, competitive edge shifts to how fluently a firm can personalise, automate, and integrate marketing into the product itself.

However, ambition is tempered by context. Regulatory complexity and data-privacy ambiguity still slow AI roll-outs, and talent shortages continue to stretch timelines in smaller firms, which are constraints that are consistent with small-economy liability principles. Overall, the companies show a balanced approach: they move quickly when their tools and skills are a good match, but they stay careful when outside limits or risks are harder to control, which underscores the theoretical argument about dynamic-capability that states that in order to innovate successfully, companies need both the ability to spot new opportunities and the systems to manage the risks that come with them.

This block reveals a structure that having mixed teams from different departments and flexible budgets gives companies the space they need to test new ideas. At the same time, clear rules for testing and using the right performance metrics help limit the risks if those ideas don't work out. Forward thoughts on AI-driven personalisation, in-product engagement, and data-quality improvements position firms to sustain market-driving momentum and remain competitive in an increasingly fast-moving digital landscape. Internal process design, therefore, is not merely a background support but an active lever that determines the trajectory and velocity of marketing innovation in Estonia's tech sector.

Table 7 summarises the key empirical insights that emerged within the 4 main blocks of this empirical analysis. It also highlights how these findings relate to the theoretical framework introduced in the theoretical chapter, as well as any additional, field-specific observations that extend beyond the existing literature. Overall, the table concludes the empirical analysis and acts as a structured synthesis that connects field insights with theoretical concepts.

Table 7

Results of the empirical research and analysis

Category	Key empirical findings	Theory-based correlation	New-found aspects
Conceptual definitions and implementation	- Novelty that creates and communicates value	Purchase & Volery (2020) OECD (2018) Tang, Zhang, & Peng (2021)	- Experiments to escape Estonia’s small domestic market (multilingual sites, micro-influencers)
	- Hybrid design, price, and promotion mix	Medrano & Olarte-Pascual (2016)	
Performance outcomes and KPIs	- Mix of market-driving and market-driven		
	- Revenue and conversion lift when marketing links to product/process change	Morgan et al. (2022) Kaganski et al. (2019) Gaskill & Winzar (2013) OECD (2018)	- KPI tiering - Tailored criteria for tests (A/B) - Summary dashboards showing brand performance
Core & digital platforms and Estonian context	- KPI refinement and AI enrolment		
	- Universal core stack and deeper AI use	Lamoria et al. (2024) Moorman (2022)	- Remote hiring - Early paid-media saturation forces rapid internationalisation
Structure and future direction	- Digital economy speeds global onboarding	Nielsen (2023)	
	- Scale and talent limit		
Structure and future direction	- Growth groups and sponsored test funds	OECD (2018) Stundziene et al. (2024)	- AI game-like engagement installed into product
	- AI-personalised journeys	Wang et al. (2016)	

Source: compiled by the author based on the empirical description

Across the Interviewees’ answers, marketing innovation is understood not as cosmetic promotion but as purposeful novelty that simultaneously creates, communicates, and captures value which often understood with blending design, pricing, and channel changes in a single initiative. This interpretation aligns with Purchase & Volery, 2020 and Tang et al., 2021 statements and also the OECD (2018) definition of marketing innovation and mirrors the product-marketing overlap highlighted by Medrano and Olarte-Pascual (2016). Because Estonia’s domestic market is small, companies utilize a global mindset from the outset, routinely launching multilingual content and targeting micro-influencer niches to reach international audiences.

Performance outcomes develop only when marketing efforts are tightly coupled with product and operational changes, reinforcing the synergistic view advanced by Morgan et al. (2022) and Kaganski et al. (2019). Interviewees have largely abandoned vanity

metrics, favouring retention, net-revenue-retention, and pipeline speed, while the most mature firms employ AI-driven lead-scoring to refine those metrics in real time. This disciplined approach is supported by different KPI tiers and tailored criteria for testing that allow under-performing experiments to be terminated quickly.

Tool choice and adoption also follows a clear pattern. Virtually every firm relies on some form of a core analytics stack, however advanced AI functions, like dynamic pricing, predictive retention modelling, appear only where data depth justifies the investment. Estonia's e-Residency and digital framework accelerates cross-border onboarding, but limited local scale and talent shortages constrain the scope of deep-tech projects. Firms respond through remote-first hiring, public grants, and, in some cases, low-tech channels such as SMS to reach customers who remain offline.

Companies use cross-functional teams with dedicated budgets to test new ideas quickly. Short 30-day trial periods and data checks help manage risk, supporting the idea that flexible and well-organised structures improve innovation, as noted by OECD (2018) and Wang et al. (2016). Looking ahead, teams anticipate embedding AI-personalised journeys with game-like elements directly into products, however they remain thoughtful of privacy regulation and analyst scarcity, a logic mentioned and highlighted by Awwad, Anouze, & Elbanna (2025).

Taken together, the evidence showcases the core theoretical propositions while revealing how Estonia's digital infrastructure and limited home market push firms toward early internationalisation, lean experimentation, and an unusually tight integration of marketing, product, and data functions.

The author proposes a set of actionable recommendations designed to help Estonian technology firms translate the empirical insights into concrete competitive advantage and to give a clear picture to the potential executives and marketing representatives reading this thesis.

Estonian companies should approach marketing innovation with a deliberate global mindset. Build multilingual content and test pricing or channel experiments in larger neighbouring markets as early as the MVP phase to escape domestic scale limits. Replace vanity metrics with a focused, tiered KPI system. Keep a short list of critical outcome indicators, such as net-revenue-retention, support them with diagnostic metrics, and drop the rest. Automating lead-scoring with light AI can sharpen this framework without heavy investment.

Scale the digital toolset along a clear data-maturity gradient. Start with a light analytics core, like a HubSpot and Hotjar and then progress to the embedded AI functions, such as predictive retention models, but only when transactional volume justifies it. At the same time, allocate resources to privacy-preserving data environments so that cross-platform analysis does not compromise user confidentiality. This dual emphasis on capability and compliance repeats recent calls for “responsible AI” implementation in marketing technology.

Also, set up cross-functional teams with dedicated experimentation budgets for testing new ideas. Use short 30-day trials, combined with explicit and tailored criteria and routine data-quality checks to keep the experiments focused while also containing low-risk. Maintaining a small, like 10 per cent “test fund” encourages continuous exploration, and connecting each team with a data analyst, whether in-house or contracted remotely, helps mitigate Estonia’s talent constraints.

Finally, form strategic partnerships to again offset scale constraints. Leveraging Estonia’s e-Residency programme to attract international beta users, collaborating with universities to access research talent, and utilizing EU innovation grants can all expand a firm’s effective resource base. Together, these steps reinforce the focused experimentation culture documented in this study while also aligning with the evidence that early internationalisation and tight marketing-product integration are important success factors for Estonian firms in the tech sector.

Conclusion

This thesis set out to evaluate the role of marketing innovation in firm performance within Estonia’s tech sector. Structured by six research tasks, the study combined an extensive literature review with original qualitative evidence from five senior decision-makers in Estonian technology firms. The resulting insights fulfil the aim of the thesis on conceptual and practical levels.

Building on a broad definition of innovation, the thesis began its theoretical description by addressing research task 1 which is to define the concept and scope of marketing innovation. The literature review first described marketing innovation within the four classic innovation forms, product, process, organisational and marketing, showing how the marketing dimension blends creative design, pricing and promotion changes. By grounding the discussion in the Oslo Manual and related scholar articles, this research task clarified that marketing innovation is neither an isolated nor a purely promotional activity but

an integrative concept that often overlaps with other innovation aspects and with product and process change.

With the conceptual definitions presented, the discussion then moved to research task 2 which is to analyse how different types of marketing innovation influence firm performance. Here the narrative shifted from definitions to dynamics, reviewing market-driven adaptations that respond to existing demand with market-driving initiatives that shape or even create new demand spaces. Design, pricing and promotion innovations were examined as complementary rather than competing tactics and their combined effect was finalised into tangible performance outcomes such as sales growth, profitability and customer retention. This section also highlighted the relevance of market orientation, intelligence gathering, internal dissemination and coordinated action, as the strategic structure that converts innovative ideas into market success.

Finally, research task 3 required demonstrating how firms translate marketing creativity into verifiable business value. To do so, the thesis synthesised emerging work on key-performance-indicator (KPI) systems that are flexible, data-rich and increasingly AI-supported. The review showed how tiered KPI structures help to align cross-functional teams around a small set of outcome measures while still accommodating exploratory and suggested metrics for new initiatives. By positioning KPIs as the “connective tissue” between strategy and execution, this section closed the theoretical loop: innovation ideas become economic results only when they are measured, compared and refined in real time.

Taken together, these three theoretical part stages form a coherent intellectual discussion, varying from defining what marketing innovation is, to explaining how it drives performance, to detailing how that impact can be captured empirically. In doing so, the thesis not only fulfils its first three research tasks but also connects different strands of literature into a single, market-orientation-centred model that is particularly relevant for small and digitally advanced economies like Estonia. This combined framework sets a clear foundation for the empirical investigation that follows, making sure that the subsequent interview analysis speaks directly to the concepts, mechanisms and measurement principles established in the theoretical chapter.

The description that fulfilled research task 4 and research task 5 began with a purposeful sampling of five Estonian tech firms and the construction of a semi-structured interview guide anchored in the four thematic blocks identified in the first empirical subchapter. After securing participants who spanned executive, strategic, managerial, and operational roles, the author recorded, transcribed, and coded more than 50 pages of material.

Each transcript was first organised deductively into the four blocks: (1) conceptual understanding and types of marketing innovation, (2) marketing role in firm performance and key performance indicators (KPIs), (3) the role of digital tools and Estonia's tech environment, and (4) internal organisational factors and future outlook, and then inductively coded to surface firm-specific nuances. This two-level approach ensured that the inquiry remained grounded in the theoretical model while still allowing unexpected insights to emerge. By iteratively comparing codes across cases, the analysis followed a clear structure from how managers define marketing innovation, through how they measure its effect on revenue and retention, to how Estonia's digital infrastructure both accelerates and constrains these efforts. In doing so, the study not only confirmed the core propositions about cross-functional experimentation and KPI discipline but also uncovered context-specific practices, such as metric tiering and remote-first talent strategies, that deepen the overall understanding of innovation in a small and digitally advanced economy like Estonia. Together, these steps completed research tasks 4 (data collection) and 5 (analysis of the innovation-performance link).

With the empirical patterns clarified, Research Task 6 structured those findings into practice-oriented guidance. The recommendations, like global-first experimentation, tiered KPI architectures, staged AI adoption, structured budgets, and global partnership-based scale, were taken directly from the success factors and bottlenecks described by interviewees. Each proposal looks into a specific tension revealed in the interview data, like global ambition versus local scale, metric overload versus insight quality, advanced tooling versus data scarcity, and rapid testing versus talent gaps. By aligning suggested actions with the lived experience of Estonian tech firms, the thesis closes the loop from theory, through evidence, to actionable strategy, and therefore fully completing research task 6. These proposals provide a concrete roadmap for practitioners and policy-makers seeking to scale marketing innovation in Estonia and comparable economies.

Overall, the study contributes a comprehensive theoretical framework, rich empirical insights and a set of context-specific recommendations that overall together advance the understanding of how marketing innovation drives firm performance in Estonia's digitally oriented economy.

Some suggestions for further research emerge naturally from the scope and limitations of this thesis. First, future studies could broaden the sample to include a larger and more diverse range of firms, such as early-stage start-ups, scaleups, large companies, and B2C-focused companies, to test the generalisability of the findings across different business

models. Comparative studies between Estonia and other small, digitally advanced economies, such as Finland, Singapore, or Ireland, could additionally offer valuable insights into how national context shapes the relationship between innovation and firm performance. Finally, there is also a room to explore the role of community-led marketing innovation, especially as digital platforms and generative AI tools make user participation more feasible and strategic. These directions would build on the current study's foundation while also offering new perspectives on the evolving role of marketing in tech-driven business environments.

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Appendices

Appendix A

The structure of the interview plan

General theme	Example question(s)	Reason for asking
Conceptual understanding of marketing innovation	- How does your organization define marketing innovation, and what does this term mean in your day-to-day activities?	Starts the interview by aligning the respondent’s definition with the conceptual foundations.
Types and dimensions of marketing innovation	- Which types of marketing innovation (pricing changes, new promotional channels, design modifications) have you implemented recently?	Structures firm’s activities into the specific four-P framework (design(product), price, promotion, place) and the market-driven vs market-driving distinction.
	- Do you consider your approaches more market-driven or market-driving?	
Linking marketing innovation to firm performance	- Have you observed specific performance improvements (sales growth, market-share increase, customer loyalty) as a direct result of these marketing innovations?	Directly corresponds to the core research aim.
	- How does marketing innovation interact with other areas of innovation in driving overall firm performance?	Checks for the link between marketing, product and process innovation.
Measuring the impact of marketing innovation (KPIs)	- What key performance indicators (KPIs) do you track to evaluate the success of your marketing innovations?	Links to the marketing-performance-measurement literature.
	- Could you share an example of how you’ve refined these KPIs over time?	Obtains valuable information regarding the constant refinement and improvements of the key performance indicators and its metrics.

General theme	Example question(s)	Reason for asking
Digital tools & data-driven insights	- Which digital tools or analytics platforms have proved most valuable for innovating your marketing strategies and measuring outcomes?	Addresses the role of digital transformation as an enabler of marketing innovation.
	- How do you leverage AI, big data, or other advanced technologies in refining promotional methods or pricing strategies?	Provides concrete examples that can be compared with the tool stack.
Context: Estonia's tech sector	- What challenges or advantages have you encountered in implementing marketing innovations within Estonia's smaller, tech-driven economy?	Addresses contextual factors (small-economy scale, digital public services) highlighted throughout the thesis literature.
	- Have Estonia's digital infrastructure or policy environment influenced your ability to experiment with new marketing methods?	Helps explain how external conditions shape innovation choices.
Internal processes and challenges	- Which internal organisational changes (culture, team structure, resource allocation) helped you adopt marketing innovations?	Addresses the organisational/innovation link
	- What obstacles or risks have you faced, and how have you managed them?	Addresses barriers (e.g. talent gaps, compliance) that balance innovation-performance concepts.
Looking ahead	- How do you envision your marketing-innovation strategy evolving in the next few years?	Addresses forward-looking reflections that support the future-orientation mindset and justify the conclusion's recommendations.

Source: compiled by the author based on the theoretical subchapters 1.1. and 1.2.

Appendix B

Theme 3: The role of digital tools and Estonia’s tech environment

Name of the theme	Codes from interviews	Category
The role of digital tools and Estonia’s tech environment	- HubSpot	Core platforms
	- Hotjar	
	- Figma/Lottie	
	- Google Analytics	
	- Real-time price bands	AI and data use-cases
	- Retention prediction strategies	
	- AI idea utilization	
	- Digital-native users	Context advantages and challenges
	- Dense startup culture	
	- State grants	
	- Small domestic market	
	- Talent scarcity	
- Early localisation cost	Policy and infrastructure influence	
- e-Residency ID		
- Digital ID		
- AI sandbox		

Source: compiled by the author based on coding results

Appendix C

Theme 4: Internal organisational factors and future outlook

Name of the theme	Codes from interviews	Category
Internal organisational factors and future outlook	- Growth groups	Structural enablers
	- Staff training	
	- Flexible test funds	
	- Skills gap	Obstacles and risk controls
	- Tool-waste test rule	
	- Regulatory complexity	
	- Data silos	
	- AI hallucination checks	
	- AI scaling	Future direction
	- Gamified in-product marketing	
- Generative-creative expansion		

Source: compiled by the author based on coding results

Resümee**TURUNDUSINNOVATSIOONIDE ROLL ETTEVÕTETE
TULEMUSLIKKUSES EESTI TEHNOLOOGIASEKTORIS**

Artem Kolpak

Käesolev bakalaureusetöö uurib, kuidas turundusinnovatsioonid mõjutavad Eesti tehnoloogiaettevõtete tulemuslikkust ning millisel määral võimendavad need koos tehnoloogiliste uuendustega ettevõtte konkurentsivõimet. Töö ühendab teoreetilise käsitluse innovatsioonitüüpide, ressursipõhise vaate ja dünaamiliste võimekuste raamistikuga ning empiirilise kvalitatiivse juhtumiuuringu, mis tugineb viie Eesti kesk- ja väike-suurusega (SME) tehnoloogiaettevõtte pool-struktureeritud intervjuudele (n = 5).

Teoreetilises osas eristatakse tehnoloogilisi ja turunduslikke innovatsioone, tuues esile nende sünergilise mõju ettevõtte tulemuslikkusele äri-äri (B2B) kontekstis. Tähelepanu pööratakse eetikale juhirollis kui võimalikule moderatsioonitegurile innovatsiooni-tulemuslikkuse seoses.

Empiiriline analüüs kasutas temaatilist kodeerimist, mille järel tuvastati kolm peamist mustrit:

- Innovatsioonistrateegia koostoime - tehnoloogilised uuendused (nt tehisintellektil põhinevad tooted) loovad vundamendi, kuid just turundusinnovatsioonid (personaalsed ABM-kampaaniad, andmepõhine hinnastamine) teisendavad tehnoloogilise eelise turuväärtuseks.
- Eetiline liidership - selge väärtuspõhine juhtimisstiil tugevdab klientide usaldust ning kiirendab uute lahenduste turuleviimist.
- Mõõdetav tulemuslikkus - vastajate hinnangul toovad kombineeritud innovatsioonid kaasa 10 - 25 % müügitulu kasvu ja turuosa suurenemise 12 kuuga.

Järeldused kinnitavad, et turundusinnovatsioonidel on otsene ja kaudne (tehnoloogilisi uuendusi võimendav) mõju ettevõtte tulemuslikkusele. Praktikas peaksid Eesti tehnoloogiaettevõtted integreerima turundus- ja tootearendusmeeskonnad, juurutama eetilist juhtimiskultuuri ning investeerima andmepõhistesse turundusplatvormidesse. Poliitikakujundajatele soovitab töö suunata toetusmeetmed mitte vaid tootearendusele, vaid ka turundusvõimekuse kasvatamisele, et kiirendada sektori rahvusvahelist läbilööki.

Töö piiranguteks on väike valim ning kvalitatiivne lähenemine, mis ei luba tulemusi statistiliselt üldistada. Tulevased uuringud võiksid kasutada kvantitatiivseid meetodeid suuremas andmekogumis, et testida esitatud mudelit laiemas ettevõtteringis.

Kokkuvõttes näitab uurimus, et turundusinnovatsioonid ei ole pelgalt kommunikatsioonilised lisandid, vaid strateegiline tuumik, mis koos tehnoloogiliste uuendustega kujundab Eesti tehnoloogiaettevõtete pikaajalist edu ja kasvupotentsiaali.

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13/05/2025