

Bachelor's Programme in Information and Service Management

Sales and Marketing Digitalization as the Driver of Growth and Profitability

Impact of sales and marketing digitalization on competitive advantage, growth and profitability

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Abstract

This Bachelor's thesis investigates the impact of sales and marketing digitalization as a driver for growth and profitability. The study seeks to determine whether digitalization provides a competitive advantage that enables faster growth and improved profitability, whether there are differences in digitalization emphases between small and large companies, and which digitalization practices yield the most favorable financial outcomes.

To address these questions, a text-mining analysis of annual reports was conducted on 24 Finnish consumer goods and services companies listed on Nasdaq Helsinki, covering the period from 2018 to 2023. The study quantitatively analyzed the frequency and density of digitalization-related keywords, alongside financial metrics such as compound average growth rate (CAGR) of revenue and profitability (EBITDA-%). Results indicate a 44.5% increase in sales and marketing digitalization keyword usage over the period, accelerated by the COVID-19 pandemic, which highlighted how companies adapted to physical sales limitations by transitioning to online platforms. While there is no uniform correlation across all companies, those with a higher focus on digitalization demonstrated resilience and more favorable financial outcomes regarding growth and profitability. Notably, companies like Kesko and Marimekko that prioritized customer-centric digital strategies, such as omnichannel experiences and data-driven customer insights, managed to translate their digitalization efforts into growth and profitability.

The findings emphasize the importance of a strategic customer-oriented approach to digitalization, suggesting that targeted digitalization efforts, especially those focusing on customer engagement and omnichannel integration, are crucial for maintaining growth and operational efficiency. This study contributes to the growing body of research on digitalization by providing empirical evidence on how sales and marketing digitalization drives firm resilience, growth, and profitability.

Keywords Sales digitalization, marketing digitalization, competitive advantage, financial performance

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Tässä kandidaatintutkielmassa tutkitaan myynnin ja markkinoinnin digitalisaatiota kasvun ja kannattavuuden ajurina. Tutkimuksessa pyritään selvittämään, mahdollistaako digitalisaatio nopeamman kasvun ja paremman kannattavuuden, millaisia eroja pienillä ja suurilla yrityksillä on digitalisaation painotuksessa, ja mitkä digitalisaatiokäytännöt tuottavat suotuisimpia taloudellisia tuloksia.

Näiden kysymysten käsittelemiseksi tehtiin tekstinlouhinta-analyysi 24 suomalaisesta kulutustavara ja -palveluyrityksestä, jotka on listattu Nasdaq Helsinkiin. Tutkimus analysoi digitalisaatioon liittyvien avainsanojen esiintymismäärää ja avainsanatiheyttä yritysten vuosikertomuksissa sekä taloudellisia mittareita, kuten liikevaihdon kasvua (CAGR) ja kannattavuutta (EBITDA-%) vuosina 2018–2023. Tulokset osoittavat 44,5 prosentin kasvun myynnin ja markkinoinnin digitalisaatioon liittyvien avainsanojen käytössä, korostaen siirtymistä fyysisistä myyntikanavista verkkopohjaisiin alustoihin COVID-19-pandemian kiihdyttämänä. Vaikka kaikkien yritysten välillä ei ole yhtenäistä korrelaatiota, digitalisaatioon enemmän panostaneet yritykset osoittivat resilienssiä ja suotuisampia taloudellisia tuloksia kasvun ja kannattavuuden osalta. Erityisesti Kesko ja Marimekko, jotka panostivat asiakaslähtöisiin digitalisaatiostrategioihin, kuten monikanavaisiin kokemuksiin ja dataohjattuihin asiakasnäkemyksiin, pystyivät kääntämään digitalisaatiopanostuksensa kasvuksi ja kannattavuudeksi.

Tutkimuksen tulokset korostavat asiakaslähtöisen digitalisaatiostrategian tärkeyttä ja osoittavat, että kohdennetut digitalisaatiopanostukset, erityisesti asiakasvuorovaikutuksen ja monikanavaisen integraation kehittämiseen, ovat keskeisiä toimenpiteitä kasvun ja kannattavuuden saavuttamiseksi. Tämä tutkimus tukee kasvavaa digitalisaatiotutkimusta tarjoamalla empiiristä näyttöä siitä, kuinka myynnin ja markkinoinnin digitalisaatio edistää yrityksen resilienssiä, kasvua ja kannattavuutta.

Avainsanat Myynnin digitalisaatio, markkinoinnin digitalisaatio, kestävä kilpailuetu, taloudellinen performanssi

Table of Contents

1 Introduction.....	7
1.1 Objectives of the Study and Research Questions	8
1.2 The Scope and Limitations	9
1.3 Structure of the Thesis	9
2 Literature Review.....	10
2.1 Digitalization in Sales and Marketing	10
2.2 Digitalization in Small vs. Large Companies	13
2.3 The Impact of Digitalization on Profitability and Growth	15
3 Methodology	17
3.1 Data Collection	17
3.2 Data Analysis Methods	18
3.3 Research Question Alignment	20
4 Results.....	21
4.1 Text-mining Results	21
4.2 Financial Performance Analysis	25
4.3 Comparison Between Company Sizes	28
4.4 Case Examples	30
5 Discussion and Conclusions.....	34
5.1 Key findings	34
5.2 Implications for Research and Practice	34
5.3 Limitations and Future Research	35
5.4 Conclusion	36
References	37

List of Figures

Figure 1. Representation of the cumulative body of research on the four marketing digitalization themes over time. Source: Herhausen et al. (2020) ..12	
Figure 2. Sales and marketing keyword categories and keywords used in the research. 19	
Figure 3. The total frequency and the average density of sales and marketing keywords 2018-2023.....21	
Figure 4. Most used keywords over the period of 2018-2023..... 22	
Figure 5. Sales and marketing digitalization subcategories emphasis 2018-2023. 23	
Figure 6. Companies by keyword frequency and density..... 24	
Figure 7. Digitalization keyword density indexed development by digital focus 2018-2023..... 24	
Figure 8. Growth-profitability matrix of studied companies in 2018-2023..... 26	
Figure 9. EBITDA-% and Revenue CAGR-% comparison between companies with different levels of digitalization. 28	
Figure 10. Company keyword density and frequency correlation with average revenue. Logarithmic axes..... 29	
Figure 11. Keyword density development by company size category.....30	

List of Tables

Table 1. Comparison of digitalization between SMEs and Large Enterprises. ...15	
Table 2. Studied companies, their market capitalization category, sector and industry. 18	
Table 3. Regression analysis of correlation between keyword density, operating revenue and EBITDA-% by company. 27	
Table 4. Median, average and standard deviation of keyword densities by company size.....30	
Table 5. Keyword specific correlations with EBITDA-% and Revenue for case companies. 33	

1 Introduction

Digitalization has disrupted markets and challenged traditional business models as innovative companies have adopted new technologies, creating more efficient sales channels and platforms for customer-company communication (Verhoef et al., 2021). Despite many well-known success stories of digitalization initiatives, not all companies manage to translate these efforts into competitive advantage and financial performance (Zeng et al., 2022). This study aims to examine the role of sales and marketing digitalization as the driver of growth and profitability in the consumer goods and services sector and attempts to uncover commonalities in the most successful practices.

Whether digital transformation can influence firm performance has become a considerable issue amongst many managerial practitioners and academic researchers. Digital transformation can create benefits such as improved operational efficiency and reduced costs—yet many managers are dissatisfied with its progress. Dissatisfaction is mainly caused by challenges in practical implementation, including high investments and the organizational learning and adjustments needed to reach the full potential of such initiatives. (Huang & Cheng, 2024)

Regardless of the uncertainties related to digitalization, it is important for company executives to stay alert to emerging digital technologies and the change they might bring. Digital technologies have the power of creating new economic opportunities, markets, products and disrupting entire industries. Recently, the COVID-19 pandemic, and the restrictions on physical activities, pushed companies to innovate with digital technologies, leading to significant growth in ecommerce. (Almeida et al., 2020)

Several empirical studies have examined the relationship between digitalization and its impact on corporate performance. In a study conducted by Eremina et al. (2019) in the Baltic states (2013-2017), companies' digital maturity was assessed through semantic text analysis of annual reports, and the data was compared to their financial performance. Digital maturity consisted of six elements: general, Internet of Things, data science, process automation, artificial intelligence, and online. Most discussed elements were general and online. The "general" category included topics such as innovation, technology, and R&D, while the "online" category covered topics like the internet, e-commerce, websites, and social networks, appearing in 55.2% and 30.8% of the annual reports in 2017, respectively. The study showed that Baltic companies had an increasing emphasis on digitalization related topics over the studied period and displayed a positive correlation between digital maturity, sales growth and profitability.

Eller et al. (2020) conducted another similar study in Austria, which examined 193 SMEs. The study was done as an online survey, and the data was compared to the financial data reported by the company representatives. Focus

of the study was specifically to examine the digitalization process of SMEs from Resource-Based View and investigate how companies can leverage their resources, such as information technology, employee skills and digital strategy to drive digitalization and improve financial performance. The authors reached similar conclusions to those of Eremina et al. (2019), indicating that the adoption of digital technologies enhances a company's financial performance.

Zeng et al. (2022) also conducted a study on digitalization and its impact on financial performance. The authors studied the panel data of A-share listed companies between 2012-2019 in China. The study suggests that digitalization can enhance company performance and is an important source of competitive advantage. The authors also highlighted the importance of digitalization in highly competitive industries and noted that the financial benefits were greater when competition was present.

Digitalization has been a prominent concept throughout most of the 2000s, with its impact on firm financial performance predominantly studied from broad, general perspective. As sales and marketing are operations which are present at the consumer-company interface, new emerging digital technologies offer possibilities to enhance the customer experience, create new sales channels and improve the efficiency of capturing customer value. (Bouarar et al., 2022; Stadlmann et al., 2023) As financial impact of digitalization remains somewhat ambiguous, further empirical research is needed to examine its effects specifically through the lens of sales and marketing.

1.1 Objectives of the Study and Research Questions

This Bachelor's thesis studies the impact of sales and marketing digitalization on companies' growth and profitability with an empirical perspective. The objective of the study is to determine whether sales and marketing digitalization can create a competitive advantage leading to faster growth and higher profitability than for peer companies. Additionally, the objective is to compare how the focus on digitalization varies by company size, and to examine sales and marketing digitalization examples that yield financial performance. The study is conducted as a literature review and complemented with a text-mining and financial performance analysis.

The research will seek answers for the following questions:

1. Does sales and marketing digitalization provide a competitive advantage over competitors and enable faster growth and better profitability?
2. Is there a difference between how smaller and larger companies emphasize sales and marketing digitalization?

3. What kind of sales and marketing digitalization is proven to be the most beneficial regarding growth and profitability?

1.2 The Scope and Limitations

The period of the text-mining analysis will cover the years 2018-2023 and the focus will be on 24 consumer goods and services companies that are listed in Nasdaq Helsinki. All the companies are based in Finland, which may limit the generalizability of findings to companies in other regions or markets. The selected period is relatively short and might not fully capture the long-term impact of digitalization. The selected companies include one large-cap¹ company, two mid-cap² companies, 14 small-cap³ companies and seven micro-cap⁴ companies. The research will examine the impact of sales and marketing digitalization on growth (Revenue CAGR) and profitability (EBITDA-%), though these metrics may not fully capture all nuances of a firm's growth and financial performance.

The text-mining analysis is limited to publicly available annual reports, which might not include all relevant data related to digitalization in the companies. The analysis relies on the frequency and density of specific keywords. However, variations in terminology among companies may lead to certain aspects of sales and marketing digitalization being overlooked.

1.3 Structure of the Thesis

In the second chapter, we will explore sales and marketing digitalization, examining and comparing the implementation in larger and smaller companies, and reviewing its impact through global studies. The third chapter will cover research design and approach, data collection, analysis process, and tools, while the fourth chapter will focus on the results. The fifth chapter will interpret the findings and discuss the financial impacts of sales and marketing digitalization in the studied group of companies. The fifth chapter will also present three case examples of successful digitalization implementations within the analyzed companies. The final chapter will summarize the findings, present implications for companies and give suggestions for future research.

¹ Large-cap: companies with market capitalization of \$10 billion to \$200 billion.

² Mid-cap: companies with market capitalization of \$2 billion to \$10 billion.

³ Small-cap: companies with market capitalization of \$300 million to \$2 billion.

⁴ Micro-cap: companies with market capitalization of \$50 million to \$300 million.

2 Literature Review

In this chapter, we will begin by exploring digitalization in sales and marketing from a general perspective, and then we will inspect the differences in digitalization implementation between small and large companies. Finally, we will examine the impact of sales and marketing digitalization on firm's growth and profitability.

2.1 Digitalization in Sales and Marketing

Digitalization is a multifaceted concept with several definitions and dimensions, making it essential to define both its general meaning and its context in this research. According to a general definition, digitalization refers to the transformative impact of IT artifacts on society and organizations, (Gidlund & Sundberg, 2022; Wolf et al., 2019), influencing technological, regulatory, social, and economic dimensions through digital platforms, ICT, and the use of virtual data (Lubacha et al., 2023). From an organizational perspective, firms leverage digitalization to enhance their competitive edge through virtual channels, automation, and AI (Reis et al., 2020). Digitalization in organizations involves the interplay between organizational routines and IT artifacts, leading to transformations in work systems (Wolf et al., 2019).

In this study we will focus on digitalization as a driver for organizational change, examining technological advancements in marketing and sales and their integration into organizational structures. The close integration between digital marketing and sales displays the importance of discussing these topics collectively. As digital platforms and technologies blur the boundaries between sales and marketing activities, their synergy enables companies with possibilities to create seamless customer experiences and enhance company performance (Lyu et al., 2011). Therefore, discussing these topics simultaneously provides a comprehensive understanding of their combined impact on organizations.

Next in this chapter, we will build a more foundational understanding of marketing digitalization through its history, possibilities and risks. Then we will examine how digitalization has impacted sales management and processes in companies.

2.1.1 Marketing Digitalization

Marketing, defined by American Marketing Association, is “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners and society at large” (American Marketing Association, 2024). Digital marketing refers to the promotion of products or brands through digital media, leveraging the internet and electronic devices to connect with existing and new customers (Duarte & Abreu, 2023; Francis et al., 2023; Guarda et al., 2020). The key components are digital channels, social media, and information and communication technologies (ICT) (Chakravarthy et al., 2024; Flaherty et al., 2021; Lamba et al., 2023; Lamberton & Stephen, 2016; Stankovska et al., 2016).

Marketing digitalization began in the early 2000s, with the emergence of digital channels and digital relationships (See Figure 1). Digital channels, in the context of the study by Herhausen et al. (2020), include internet, websites, mobile devices, and interactive platforms such as online marketplaces.

As displayed on Figure 1 by Herhausen et al. (2020), the adoption of digital technologies and social media followed the rise of digital channels in the 2010s and has since increased with a rapid pace, creating possibilities for companies to extend their marketing from traditional channels. Digital marketing in social media utilizes organic and paid content on platforms like Instagram, Facebook and Twitter, to communicate with large, targeted audiences, to promote products and services, and engage with customers (Guarda et al., 2020). By combining ICTs with social media and digital channels, organizations enable the delivery of personalized content and implement interventions to influence behavior (Flaherty et al., 2021; Lamberton & Stephen, 2016).

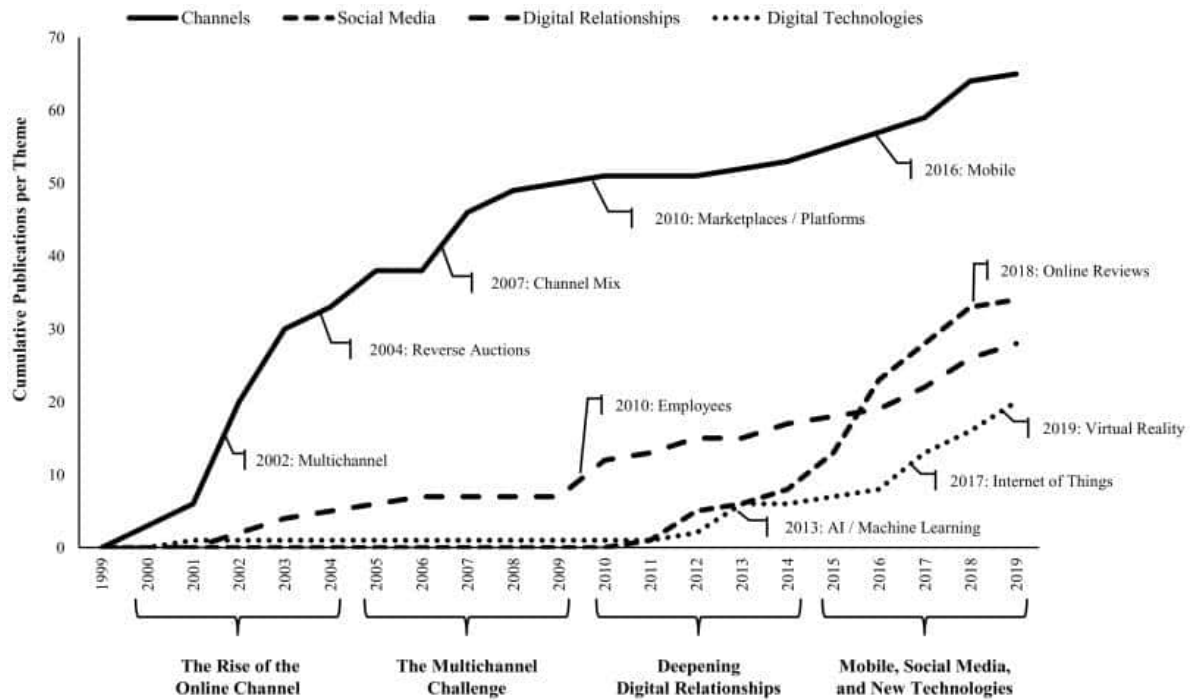


Figure 1. Representation of the cumulative body of research on the four marketing digitalization themes over time. Source: Herhausen et al. (2020)

Digital marketing can provide companies with many benefits. For instance, by enabling personalized communication, digital marketing provides businesses with improved understanding of customer needs (Guarda et al., 2020; Merisavo, 2005). Feedback from digital channels allows companies to adjust product features to meet customer demands, thereby improving competitiveness and product quality (Potwora et al., 2023). Tools used in digital marketing also provide valuable insights into consumer behavior and allow companies to predict market trends, respond effectively (Agrawal, 2021; Potwora et al., 2023), and reach a broader, global, audience (Kumar Sharma et al., 2020; Riabova et al., 2022). Utilizing digital marketing strategies can also help reduce operational expenses while increasing profitability, making it vital for companies to maintain and grow their operations (Alquqa et al., 2023).

However, implementing digital marketing also introduces challenges. Rapid technological development requires companies to continuously adapt by integrating new digital tools, which can be resource consuming (Pires et al., 2023a; Riabova et al., 2022). The accessibility of digital marketing tools has increased competition, creating intense pressure for continuous adaptation to attract and retain customers (Ustik et al., 2023). Despite the accessibility of the tools, special skill areas such as Search Engine Optimization (SEO), Search Engine Marketing (SEM) and social media management, are needed for effective

digital marketing, which can be a barrier for some companies (Kumar Sharma et al., 2020; Malik et al., 2022). If digital marketing is managed poorly, the potential for significant reputational risks rises due to the increased consumer interactions brought by digitalization (Ustik et al., 2023). Additionally, the digital landscape poses challenges to data privacy and security. Inadequate acts on following regulatory data compliance can affect consumer trust (Pires et al., 2023).

2.1.2 Sales Digitalization

Sales management and processes have also been widely impacted by digitalization, leading to many new opportunities and challenges. Specifically, the effectiveness and efficiency of sales processes management have improved, as digital technologies have automated repetitive tasks (Hannig, 2023; Zoltners et al., 2021). This development was accelerated by COVID-19, which forced companies to find alternatives for face-to-face interaction. (Hannig, 2023) Sales teams have been able to leverage real-time data and insights to tailor strategies that more effectively meet customer needs (Fischer et al., 2023; Linnhoff-Popien et al., 2017; Zoltners et al., 2021). Digital orientation in sales has been shown to enhance the salespeople's skills, and improve the implementation of sales strategies, boosting their performance (Silva et al., 2023).

Adoption of digital technologies in sales has created tensions within sales organizations. Such issues include autonomy, control and resource allocation, and have been experienced differently on different organizational levels, from salespeople to managers and sales directors (Micallef et al., 2024). Despite the benefits of sales digitalization, the adoption pace of digital sales tools has been slow due to the poor digital readiness and low usage rate among sales teams (Zoltners et al., 2021). Another issue which has created discussion around sales digitalization is balancing the digital and human elements. While the risk of digital tools entirely replacing humans is unlikely, the future of sales will likely involve a mix of digital and non-digital channels, combining technology and human interaction (Rainsberger, 2023).

2.2 Digitalization in Small vs. Large Companies

When it comes to digitalization, small and medium size enterprises (SMEs) show varying levels of readiness, with many requiring targeted interventions to increase their capabilities (Hoa & Tuyen, 2021; Rajahonka et al., 2023). They often lag larger companies in adopting digital tools (Peter & Dalla Vecchia, 2021). However, there are mentions of smaller companies being agile and having capabilities to quickly adapt to changes in their digital environment

(Bezes, 2024). SMEs emphasize flexibility and adaptability, often recruiting young digital experts and closely focusing on customer preferences to maintain a competitive advantage (Fjellström et al., 2020; Pira & Fleet, 2023). Despite their agility, SMEs' digital transformation processes tend to be less radical and more controlled, often beginning with practical steps like establishing websites and social media before moving to more sophisticated systems like ERP and CRM (Bezes, 2024; Bradač Hojnik & Hušek, 2023; Lee et al., 2018; Smeshko et al., 2022). The incremental implementation is forced by the lack of financial and human resources. Typically, SMEs primarily invest in low-budget social media and e-marketing strategies, and due to the lack of specialized expertise, yet face difficulties in forming and executing them (Peter & Dalla Vecchia, 2021; Pira & Fleet, 2023; Victorino et al., 2020). To tackle the constraints of human and financial resources, SMEs tend to rely on external support, such as consulting services and publicly funded units (Barann et al., 2019; Powell et al., 2024).

To stay competitive, large companies tend to exhibit a higher level of digitalization, utilizing advanced technologies more extensively than SMEs (Buer et al., 2021; Hrosul et al., 2022; Saunila et al., 2020). Since large companies are less restricted by resources than their smaller counterparts, they often make significant strategic investments in new sales and marketing tools and platforms, such as content and electronic customer relationship management systems (Buer et al., 2021; Pira & Fleet, 2023). Large enterprises also utilize digital sales process management models to integrate internal data, which enhances sales forecasting and aids with strategic decision making (Ma et al., 2024). They also focus on integrating their digital marketing into a holistic strategy that encompasses all areas of the business, ensuring seamless integration of digital technologies (Becker & Schmid, 2020; Giotopoulos et al., 2022; Peter & Dalla Vecchia, 2021). Large enterprises also implement omnichannel strategies, integrating several sales and communication channels to improve their customer relationships (Lorenzo-Romero et al., 2020). Table 1 portrays the characteristics of digitalization between SMEs and large companies.

Table 1. Comparison of digitalization between SMEs and LEs.

Aspect	Small Companies	Large Companies
Approach	Customer-centric, agile, incremental	Comprehensive, strategic, data-driven
Barriers	Limited resources, high costs, lack of expertise	Complex integration, higher initial investment
Digital Tools	Social media, online stores, basic digital marketing	Advanced analytics, omnichannel strategies, IT competence
Investment	Gradual, controlled progress	Significant, strategic investments

2.3 The Impact of Digitalization on Profitability and Growth

In this chapter we will begin by examining sales and marketing digitalization's impact on company profitability and then in the second part of this chapter we will assess how it can impact company growth.

2.3.1 Profitability

Sales and marketing digitalization offers unique possibilities for industries and has varied outcomes on profitability. For instance, Cheng et al. (2023) found that in manufacturing firms, digitalization enhances profitability by improving asset utilization, leading to more efficient sales generation. This impact is particularly effective in highly competitive industries and in smaller firms with fewer skilled workers. In service companies, however, the impact is mixed, as it improves asset utilization but may reduce profit margins from sales. (Cheng et al., 2023) The restaurant industry is a prime example of a service sector that has recently benefitted from digital tools. Utilizing online ordering and delivery services helped restaurants to mitigate profitability losses during the COVID-19 pandemic, emphasizing the importance of digitalization for resilience and competitiveness (Malhotra & Mishra, 2024). Digital innovations such as ecommerce and digital marketing have a positive impact on profitability in

retail. In a study conducted from 2007 to 2017, 36 US- and European-based grocery retailers improved their EBITDA margin by 0.125 percentage points, although the effect was temporary and diminished after four years (Zombor et al., 2019). Another study finds that implementing innovative digital sales technologies, such as predictive analytics and augmented reality, in B2B firms can positively affect profitability by identifying and closing sales opportunities. However, this effect varies with the complexity of the sales environment. (Friess et al., 2024) In the real estate industry, digital tools based on fuzzy set theory in marketing strategies help manage real estate prices dynamically, optimizing price offers, stimulating demand, thereby enhancing profitability (Rosynskyi et al., 2024).

2.3.2 Growth

Sales and marketing digitalization contributes significantly to companies' overall growth by enhancing marketing strategies, improving business growth metrics, increasing operational efficiency, and providing a competitive advantage. Digitalization has enabled companies to leverage social media as a powerful marketing tool and customize the online user experience. Which has, in turn, allowed for more effective marketing strategies and customer engagement. The use of Customer Relationship Management (CRM) solutions has also allowed companies to adopt customer-centric strategies, improving customer satisfaction and loyalty, which in turn drives growth (Matosas-López, 2024). New digital sales channels and tools have provided companies possibilities for growth. As evidenced by the case of Ukrainian railway passenger company, the promotion of online sales through electronic channels, social networks, and mobile networks can significantly boost the marketing activities of service enterprises (Shpak et al., 2020). The integration of digital technologies in sales practices supports salespeople in their daily tasks and can even replace certain human roles, resulting in more efficient sales processes and improved performance (Fischer et al., 2023; Rodriguez et al., 2023). The use of digital marketing tools has been shown to positively impact the growth of annual business turnover and increase employee numbers, particularly in manufacturing SMEs. The growth is further enhanced by the digital capabilities of managers (Berbatovci & Buja, 2024). Marketing information systems digitalization with production operations digitalization helps companies to increase profitability, automate processes and improve communication between departments, which ultimately leads to higher sales volumes (Lali et al., 2023). In addition to previously mentioned digitalization implementations, gaining a competitive advantage requires companies to make data-driven decisions and analyze customer needs to meet evolving relationship expectations (Fischer et al., 2023).

3 Methodology

This chapter outlines the methods used in the quantitative text-mining analysis. It begins by detailing the data collection process, followed by description of the data analysis methods. Lastly, it connects the research questions with the analytical methods. Adopting a deductive approach, the study aims to test existing theories regarding the impact of digitalization using empirical data.

3.1 Data Collection

The primary data source for the text-mining analysis is the annual reports of 24 consumer goods and services companies listed in Nasdaq Helsinki. The annual report PDFs were gathered from official company websites. The financial metrics, including Operating revenue and EBITDA, were sourced from ORBIS database. The selected companies cover all consumer goods and services companies that have sufficient public data available for the analyzed period of 2018 to 2023. The analyzed period includes pre-COVID, COVID and post-COVID years, which may reveal interesting patterns in the adoption and impact of digitalization. The selected companies comprise one large-cap company, two mid-cap companies, 14 small-cap companies, and seven micro-cap companies, offering a range for comparing companies of different sizes (See Table 2).

Table 2. Studied companies, and their market capitalization, sector and industry.

Company	Cap	Sector	Industry
ALMA MEDIA OYJ	Small	Consumer Services	Publishing
ANORA GROUP PLC	Small	Consumer Goods	Beverages
APETIT OYJ	Micro	Consumer Goods	Packaged Foods
ATRIA OYJ	Small	Consumer Goods	Packaged Foods
FINNAIR OYJ	Mid	Consumer Services	Airlines
FISKARS OYJ ABP	Small	Consumer Services	Leisure
HARVIA OYJ	Micro	Consumer Services	Leisure
HKFOODS OYJ	Mid	Consumer Goods	Packaged Foods
HONKARAKENNE OYJ	Micro	Consumer Services	Residential Construction
KAMUX OYJ	Small	Consumer Services	Auto & Truck Dealerships
KESKO OYJ	Large	Consumer Goods	Grocery Stores
LINDEX GROUP OYJ	Small	Consumer Services	Physical Retail
MARIMEKKO OYJ	Micro	Consumer Services	Apparel Manufacturing
NOHO PARTNERS OYJ	Small	Consumer Services	Restaurants
NOKIAN RENKAAT OYJ	Small	Consumer Services	Auto Parts
OLVI OYJ	Small	Consumer Goods	Beverages
RAISIO OYJ	Micro	Consumer Goods	Packaged Foods
RAPALA VMC OYJ	Micro	Consumer Services	Leisure
REMEDY ENTERTAINMENT	Micro	Consumer Services	Electronic Gaming & Multimedia
SANOMA OYJ	Small	Consumer Services	Education & Training Services
SUOMINEN OYJ	Small	Consumer Goods	Household & Personal Products
TALLINK GRUPP AS	Small	Consumer Services	Marine Shipping
TOKMANNI OYJ	Small	Consumer Services	Discount Stores
VIKING LINE ABP	Small	Consumer Services	Marine Shipping

3.2 Data Analysis Methods

The raw annual report PDFs are analyzed using text-mining techniques to identify the frequency and density of key terms related to sales and marketing digitalization. The keywords are drawn from a list which includes terms such as e-commerce and digital channels. The keywords are in five subcategories, allowing broader comparison and analysis of related trends in sales and marketing digitalization (See Figure 2). The selection process for relevant keywords was initially conducted manually and then accelerated using a large language model (ChatGPT 4o) and manual curation. As the first step a few annual reports were reviewed to identify relevant keywords, which were then added to an initial list. Then annual reports were added to the large-language

model with the initial keyword list, and it was asked to search for keywords related to the initial list. After gathering the keywords, the list was manually curated, and unrelated keywords removed.

A Python program is then used to scrape through the text in annual reports and calculate the frequencies and densities of keywords by year for each studied company. The libraries used in the program include Os, Pandas, PyPDF2, Re, NLTK, Wordnet and Inflect. NLTK and Wordnet are used for working with synonyms of the keyword list to ensure the analysis is comprehensive. Inflect is used for pluralizing terms, allowing the detection of both singular and plural forms of the keywords. In addition to Python, Excel will be used for statistical analysis and visualization.

The density of keywords across reports will be measured with 1:100 000 ratio for easier comprehension. Density is used to understand the emphasis each company places on sales and marketing digitalization, as analyzing the frequency of the keywords would not provide an accurate picture due to varying lengths of annual reports, which range from over 300-page reports to fewer than 100-page reports. Density also allows us to make a more reliable longitudinal analysis over the studied period.



Figure 2. Sales and marketing keyword categories and keywords used in the research.

The financial metrics, Revenue CAGR (Compound Annual Growth Rate) and EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) will be compared to the text-mining analysis to assess whether a greater emphasis on digitalization correlates with improved growth and profitability. Companies

will also be analyzed by their revenue and keyword density to determine whether large companies emphasize digitalization more than smaller ones, and vice versa. The strength of the relationship between digitalization emphasis and financial incomes will be analyzed using regression analysis.

3.3 Research Question Alignment

With the analysis, the research questions will be answered as follows:

RQ1: Does sales and marketing digitalization provide a competitive advantage over competitors and enable faster growth and better profitability?

This question will be addressed by analyzing the correlation between the density of sales and marketing digitalization keywords and the companies' growth and profitability metrics.

RQ2: Is there a difference between how smaller and larger companies emphasize sales and marketing digitalization?

This question will be analyzed by using regression analysis to compare company revenue and keyword density.

RQ3: What kind of sales and marketing digitalization is proven to be the most beneficial regarding growth and profitability?

Based on the text-mining results, three companies with a high correlation with the financial outcomes and keyword densities will be reviewed to identify which sales and marketing digitalization practices appear to have been the most effective.

4 Results

4.1 Text-mining Results

From 2018 to 2023, the total frequency of sales and marketing digitalization keywords used by the studied Finnish consumer goods & services companies increased by 44.5%, with the keyword density rising by 10.1% (See Figure 3). Most frequently used keywords included ‘digital service’ (468 mentions), ‘online store’ (334 mentions), ‘customer data’ (242 mentions), and ‘omnichannel’ (221 mentions) (See Figure 4).

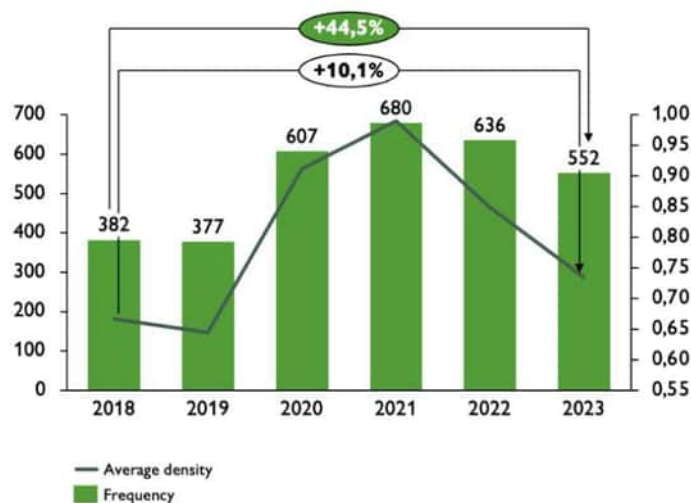


Figure 3. The total frequency and the average density of sales and marketing keywords 2018-2023.

The largest increase in keyword usage (61.0 %) occurred between 2019 and 2020, as companies responded to the COVID-19 restrictions on physical activity by adapting to more digitalized business models. The pandemic had a greater impact on certain keywords, while others saw less change. The keywords with the largest increases were ‘omnichannel’ (+41 mentions), ‘online sales’ (+41 mentions), ‘online store’ (+31 mentions), ‘webstore’ (+21 mentions), and ‘digital channel’ (+17 mentions), reflecting the shift from brick-and-mortar to digital sales platforms.

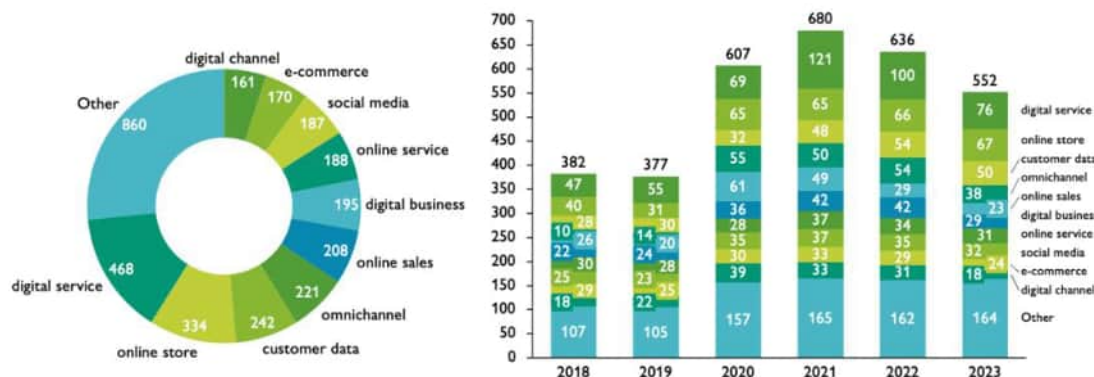


Figure 4. Most used keywords over the period of 2018-2023.

Since the peak year of 2021, companies have steadily decreased the frequency of the sales and marketing digitalization keywords in their annual reports, with 23.2% reduction compared to 2021. Keywords with the largest decreases from 2021 to 2023 were ‘digital service’ (-45 mentions), ‘online sales’ (-26 mentions), ‘digital channel’ (-15 mentions) and ‘digital business’ (-13 mentions).

Despite many digitalization topics gaining popularity during the pandemic, certain topics seem to have kept their prominent position. Amongst the most popular terms, the frequency of ‘online store’ frequency increased by 110.0% in 2020, and have displayed no major decline since. This might indicate consumers learning to trust online shopping during the pandemic, partly through necessity and partly by the improvements in the ease of use of digital channels companies had to develop as customer interaction points shifted online. Another term that has stayed relatively prominent over the studied period, is ‘customer data’, which increased from 28 mentions in 2018 to 50 mentions in 2023. The largest increases occurred from 2021 to 2023, which is after the major shock of the pandemic. This may be due to the improved capability for capturing customer data as more customers have shifted to digital platforms, enabling easier collection to traditional sales channels.

Some terms have remained relatively stable over the entire period. For example, ‘social media’ usage has been steady, with only a slight increase during the pandemic, rising from 25 mentions in 2018 to 32 mentions in 2023. As shown in Figure 1 (Herhausen et al., 2020), social media has been studied since 2010 and has since become a standard element in companies’ marketing strategies, which may explain why it was less affected by market disruptions such as the COVID-19 pandemic.

Examining the development of sales and marketing digitalization trends more broadly, with subcategories referenced in Figure 2, reveals that the Sales Channels & Commerce and Customer Experience & Personalization have the

highest keyword frequencies (see Figure 5). While other categories remain relatively stable from 2018 to 2023, the emphasis on Sales Channels & Commerce -category increases significantly between 2019 and 2020, before returning to its prior level by 2023 as the pandemic impact subsides. As emphasis on Sales Channels & Commerce increases in 2020, all other categories, except Product & Sales Development, show a slight decrease.

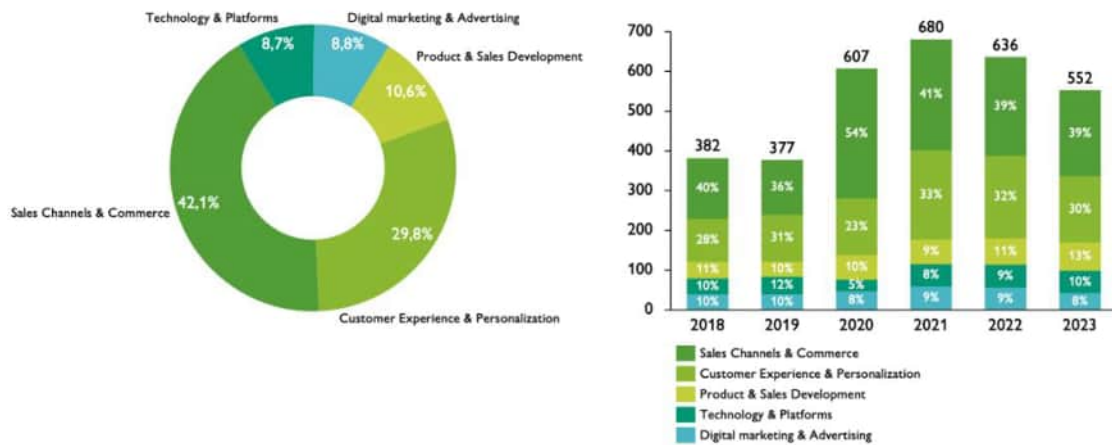


Figure 5. Sales and marketing digitalization subcategories emphases 2018-2023.

Keyword frequency and density varied significantly across companies during the studied period. The companies with the highest keyword usage were Kesko (706 mentions), Alma Media (638 mentions) and Marimekko (344 mentions) (See Figure 6). Kesko focused particularly on ‘digital service’ (196 mentions), ‘customer data’ (123 mentions) and ‘online store’ (100 mentions). Alma Media also emphasized ‘digital service’, with 183 mentions. It also focused on ‘digital business’ (152 mentions) and ‘online service’ (100 mentions). Marimekko’s emphasis was on ‘e-commerce’ (76 mentions), ‘omnichannel’ (74 mentions) and ‘online store’ (52 mentions). In addition to these three companies, Lindex Group was amongst those with the highest keyword density, with an average of 11.21 keywords per 100,000 words. Lindex Group focused particularly on ‘online store’, ‘omnichannel’ and ‘multichannel’ (75, 28, and 15 mentions, respectively).

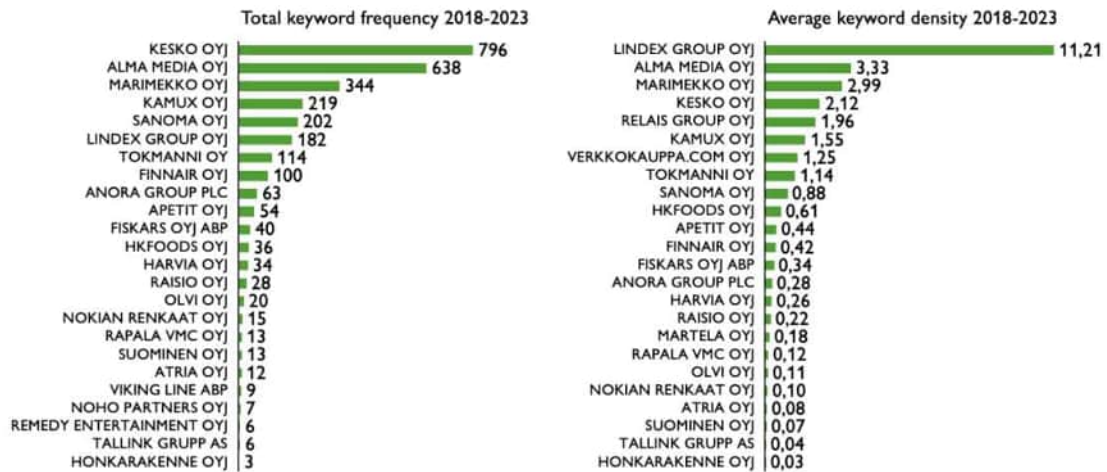


Figure 6. Companies by keyword frequency and density.

By clustering the companies into three digital focus categories (High, Moderate, Low) based on average keyword density, trends in digitalization adoption could be analyzed over the years. As shown in Figure 7, companies with high average keyword density (top third) decreased their keyword density by 26.6% over the studied period. In contrast, companies with moderate (middle third) and low (bottom third) digital focus increased their keyword density over the studied period by 36.9% and 16.1%, respectively. This suggests that companies in the top third for average keyword density may have reached a higher level of sales and marketing digitalization earlier, while companies in the middle and lower third are progressing toward similar levels over the study period.

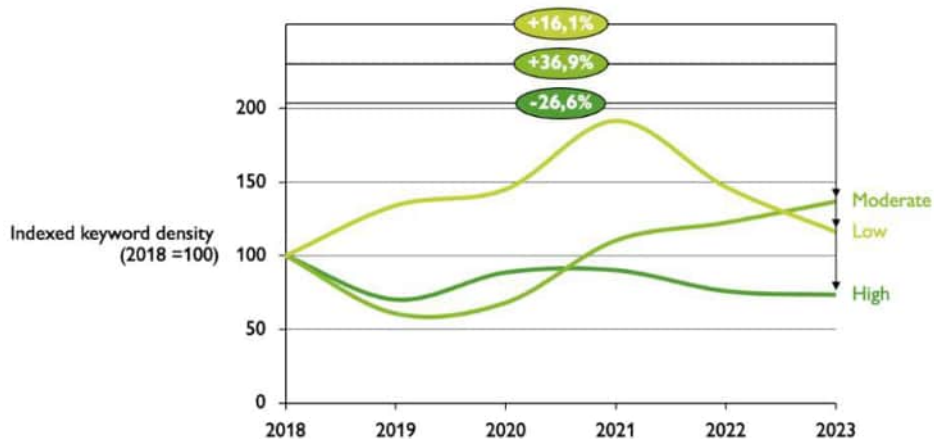


Figure 7. Digitalization keyword density indexed development by digital focus 2018-2023.

4.2 Financial Performance Analysis

To analyze the financial performance of companies, Operating Revenue CAGR and EBITDA-% was measured from 2018 to 2023. Operating Revenue CAGR measures the average annual growth rate of a company's operating revenue over a specific period. It is used to understand the rate at which a company's revenue has been growing year-over-year. EBITDA-% is a profitability metric that shows what percentage of a company's revenue is converted into EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization). It helps understand the company's operational efficiency, as it indicates how much profit is made from revenue before accounting for financial and non-cash expenses.

The formulas for CAGR and EBITDA-% are as follows:

$$CAGR = \left(\frac{Ending\ Value}{Beginning\ value} \right)^{\frac{1}{n}} - 1$$

$$EBITDA - \% = \frac{EBITDA}{Operating\ Revenue} * 100$$

4.2.1 Financial Performance Overview

By inspecting companies on a growth-profitability matrix, we can assess their financial performance and identify which companies have performed the best (See Figure 8), with color coding indicating each company's average keyword density.

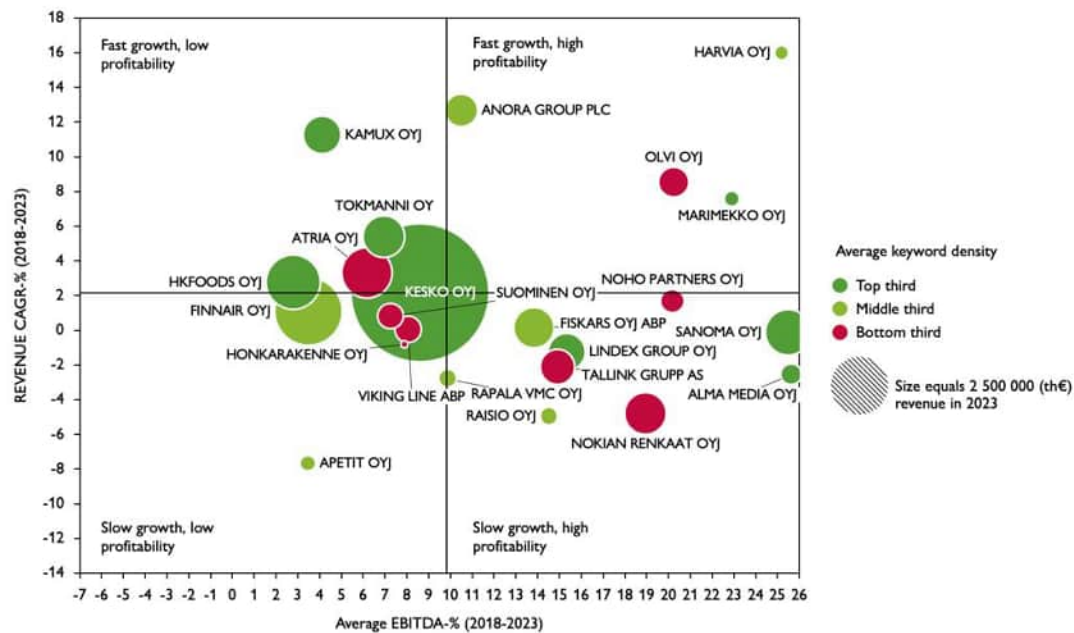


Figure 8. Growth-profitability matrix of studied companies in 2018-2023.

In the top-right quadrant, we find the fast-growing companies with high profitability between 2018-2023. These companies are Harvia, Olvi, Anora and Marimekko. Marimekko belongs to the top third in keyword density, Harvia and Anora Group to the middle third and Olvi to the bottom third.

In the top-left quadrant are fast growing companies with low profitability. These companies are Kamux (top third), Tokmanni (top third), HKFoods (top third), Kesko (top third) and Atria (bottom third). In the bottom-right quadrant are slow growing companies with high profitability. Of these companies Alma Media, Sanoma, and Lindex Group belong to the top third, Fiskars and Raisio and Rapala to the middle third and Noho Partners, Nokian Renkaat and Tallink Grupp to the bottom third. In the bottom-left quadrant are slow growing companies with low profitability. Of these companies Suominen, Viking Line and Honkarakenne are in the bottom third and Finna, Apetit and Rapala in the middle third. No companies in the bottom-left quadrant belong to the top third keyword density category.

4.2.2 Financial Performance and Keyword Density Correlation

To analyze the impact that sales and marketing digitalization initiatives have on the financial performance of the studied companies, yearly changes in the correlation between keyword density and both operating revenue and EBITDA-% was calculated for each company (See Table 3). For operating revenue, the average correlation with keyword density was 0,08 and median 0,20, indicating no strong direct correlation. However, some companies, such as Kesko, HKFoods, Sanoma and Olvi showed relatively strong positive correlations. Conversely, some companies, such as Anora Group and Tokmanni, showed strong negative correlations. For EBITDA-%, the average and median correlations were 0.22, suggesting a weak positive correlation. Companies with a strong positive correlation include Marimekko, Fiskars and Nokian Renkaat. Notably, some companies, such as Kesko, Harvia, and Fiskars, exhibit strong positive correlations for both revenue and EBITDA-%.

Table 3. Regression analysis of correlation between keyword density, operating revenue and EBITDA-% by company.

Company	Revenue-density-correlation	R ²	EBITDA-%-density-correlation	R ²
ALMA MEDIA OYJ	-0,47	0,22	-0,28	0,08
ANORA GROUP PLC	-0,95	0,91	0,77	0,59
APETIT OYJ	-0,73	0,53	0,48	0,23
ATRIA OYJ	-0,58	0,34	0,26	0,07
FINNAIR OYJ	0,22	0,05	0,19	0,04
FISKARS OYJ ABP	0,40	0,16	0,88	0,77
HARVIA OYJ	0,61	0,38	0,84	0,71
HKFOODS OYJ	0,86	0,75	-0,04	0,00
HONKARAKENNE OYJ	-0,29	0,08	0,07	0,01
KAMUX OYJ	-0,02	0,00	0,60	0,36
KESKO OYJ	0,87	0,76	0,52	0,27
LINDEX GROUP OYJ	0,33	0,11	-0,85	0,72
MARIMEKKO OYJ	0,12	0,01	0,80	0,64
NOHO PARTNERS OYJ	-0,25	0,06	0,61	0,37
NOKIAN RENKAAT OYJ	0,18	0,03	0,73	0,53
OLVI OYJ	0,71	0,50	0,33	0,11
RAISIO OYJ	0,38	0,15	-0,05	0,00
RAPALA VMC OYJ	-0,07	0,00	-0,13	0,02
REMEDY ENTERTAINMENT OYJ	0,24	0,06	0,15	0,02
SANOMA OYJ	0,76	0,58	-0,76	0,58
SUOMINEN OYJ	0,47	0,22	0,20	0,04
TALLINK GRUPP AS	-0,33	0,11	0,24	0,06
TOKMANNI OY	-0,95	0,91	-0,19	0,04
VIKING LINE ABP	0,31	0,10	0,01	0,00
Average		0,08	0,22	
Median		0,20	0,22	

Although there appears to be no strong correlation between financial performance and digitalization keyword density amongst the studied

companies, the top third of companies by digitalization keyword density seem to outperform the middle and bottom thirds in both profitability and growth.

The most significant difference emerges when 2018 is used as a base year for indexed operating revenue and EBITDA-% development. Companies with a higher emphasis on sales and marketing digitalization appear to improve their operating revenue, while companies with lower emphasis experience a dramatic decrease over COVID-19 pandemic in 2020 (See Figure 9). The indexed EBITDA-% development indicates that during the pandemic, both the top and the middle thirds significantly improved their profitability while the bottom third of companies experienced a decline. This highlights the role of digitalization in enhancing company resilience and competitiveness.

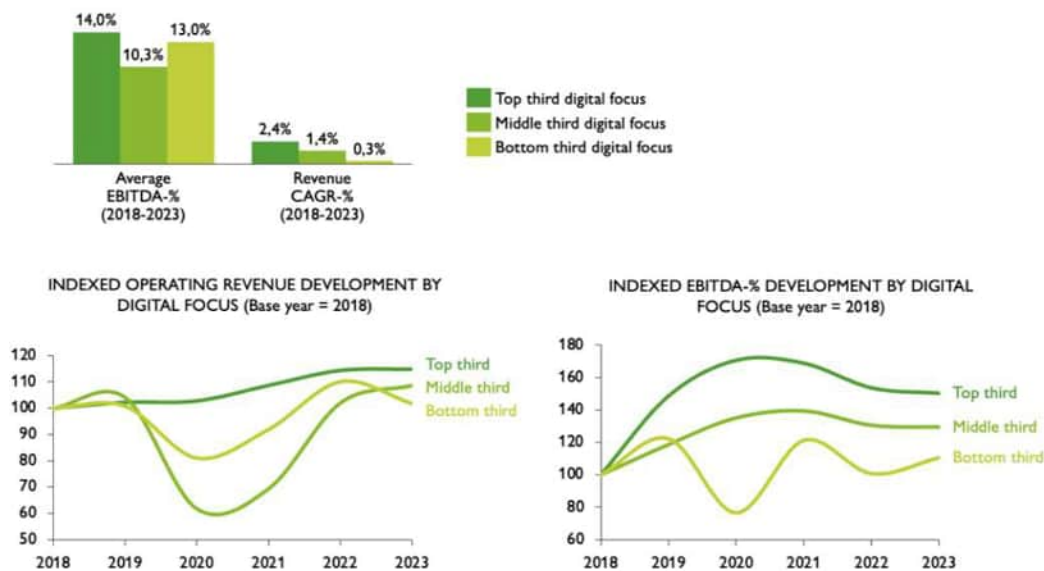


Figure 9. EBITDA-% and Revenue CAGR-% comparison between companies with different levels of digitalization.

4.3 Comparison Between Company Sizes

As discussed previously in the literature review, large enterprises and smaller companies have varying levels of readiness, resources, and challenges for implementing digitalization. To determine whether companies of different sizes place varying emphasis on sales and marketing digitalization, keyword density and average frequency per year were compared with average revenue.

The results do not clearly indicate that, amongst the studied companies, company size (by average revenue 2018-2023) would have a linear correlation

with the keyword density ($r=0.091$, see Figure 10). Average keyword frequencies and company revenues showed a stronger correlation ($r=0.67$), but this is most likely due to larger corporations having longer annual reports, which supports the earlier observation. The results may also be affected by the limited representation of different company sizes as there is only one company in the large-cap, two in the mid-cap, and 14 and seven in the small- and micro-cap categories, respectively.

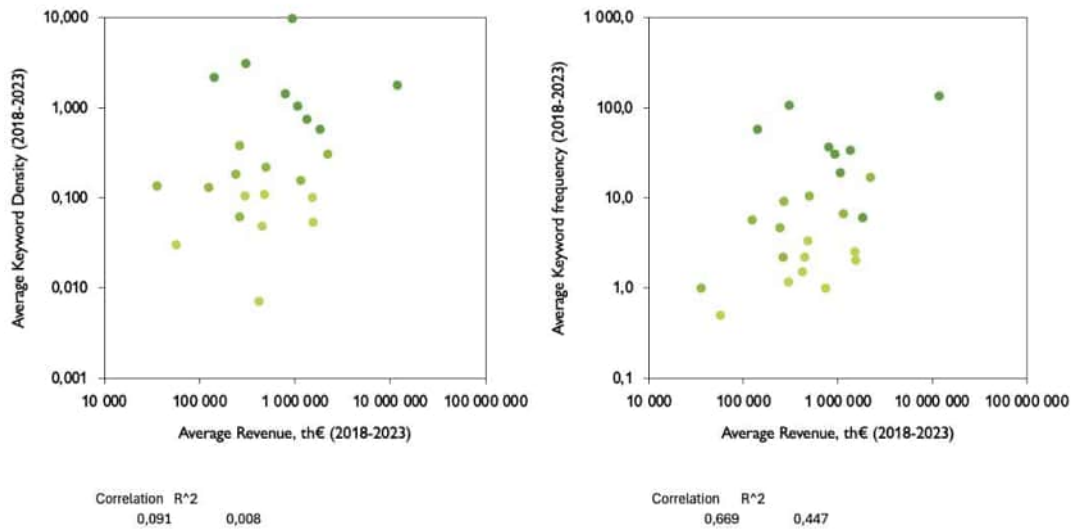


Figure 10. Company keyword density and frequency correlation with average revenue. Logarithmic axes.

To simplify the analysis the companies are separated into three evenly sized categories by average revenue. When examining keyword density across these categories, we observe that the third of the largest companies have the highest (0.47), the third of medium sized companies have the second highest (0.20) and the third of smallest companies have the lowest median keyword density (0.17) (See Table 4). In this case the median is a more accurate metric than average as the sample has a high standard deviation due to outliers. When comparing companies digital keyword focus development longitudinally in 2018-2023, the large companies have increased their median keyword density while medium and small companies have only maintained or decreased it slightly. (See Figure 11) This supports the claim that larger companies tend to place a greater emphasis on digitalization than smaller ones, though the differences among the studied companies are not substantial.

Table 4. Median, average and standard deviation of keyword densities by company size.

	Median	Average	ST.DEV
Large	0,47	0,72	0,71
Medium	0,20	1,96	3,76
Small	0,17	0,57	0,97

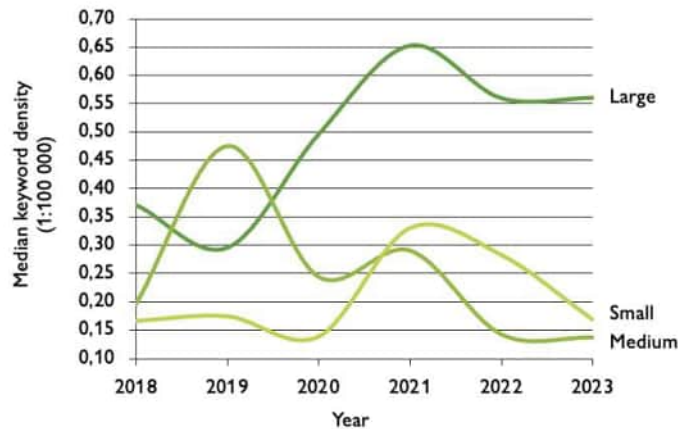


Figure 11. Keyword density development by company size category.

4.4 Case Examples

In the following chapter we analyze three companies, which have a relatively strong correlation between sales and marketing digitalization keyword density and financial performance. To understand why these companies have been specifically successful in translating digitalization into financial performance, the correlations of specific keywords used by the companies are analyzed.

4.4.1 Kesko Oyj

Kesko is a Finnish leader in the trading sector, operating in grocery, building and technical, and car trade. Together with K-retailers, it forms K Group, which is Finland's largest and one of the Northern Europe's biggest trading operators. Kesko has approximately 1,800 stores across multiple countries, combining online sales with a robust network to create seamless customer experience. Its business model involves independent K-retailers and a growing B2B trade.

In 2023, Kesko's revenue was 12.7 billion euros, making it the only large-cap company in the study. In 2018-2023 its Operating Revenue CAGR was 2.2% and average EBITDA-% was 8.61%. Kesko had the most sales and marketing digitalization keyword mentions of the study with 796 mentions and an average keyword density of 2.12. It had a 0.87 revenue-density correlation and a 0.52 EBITDA-%-density correlation (see Table 3).

In its 2022 annual report, Kesko committed to raising the utilization of its data capital from 25% to 50% by 2050, which includes upgrading its data-driven value creation model and developing a new K-Data platform to enhance analytics and data exchange for stakeholders, including partners and customers. Kesko's foodservice operator Kespro, has a digital business platform, which includes advanced analytics, enriched product data, and customer-specific solutions to enhance efficiency and customer experience. The division's marketing, sales and logistics in Kesko's building and technical trade are heavily data driven, contributing to a personalized customer journey and improved efficiency. In addition, Kesko has been focusing on developing its K-Ruoka mobile app for grocery shoppers and K-Ostokset digital service. (Kesko annual reports 2018-2023)

Analyzing the correlation of each keyword's density to Kesko's operating revenue and EBITDA-% development, we can see which keywords impacted the financial performance the most. For revenue, the strongest positive correlations are with 'customer data' ($r=0.95$) and 'online store' ($r=0.91$). Additionally, keywords related to mobile applications such as 'app' ($r=0.73$) and 'digital application' ($r=0.80$), also showed strong correlations. All these keywords have a moderate positive correlation with EBITDA-%, indicating that Kesko has successfully transformed its digitalization projects into growth and profitability. (See Table 5)

4.4.2 Marimekko Oyj

Founded in 1951, Marimekko is a Finnish lifestyle design company known for its bold prints and original colors. It offers top-quality clothing, home décor, bags, and other accessories. The brand focuses on timeless, functional design and sustainability, with its printing factory in Helsinki producing around a million meters of fabric annually. Marimekko's products are sold globally, with around 170 stores and online availability in 35 countries. Its key markets are Northern Europe, North America, and the Asia-Pacific region.

In 2023, Marimekko had an operating revenue of 174 million euros with an operating revenue CAGR of 7.6% and impressive average EBITDA-% of 22.9% from 2018 to 2023, making it one of the best performing companies in the studied set regarding both metrics. The company had a 2.99 keyword density with a total of 344 mentions. It had a 0.12 revenue-density correlation and a 0.80 EBITDA-%-density correlation (see Table 3).

Marimekko has advanced its digitalization efforts by focusing on boosting omnichannel growth and efficiency. The company emphasizes a “digital first” mindset, integrating e-commerce with in-store retail to create a seamless customer experience. Their initiatives have included launching new digital sales channels and enhancing its omnichannel ecosystem. (Annual reports 2020-23, Marimekko)

Despite a low overall correlation with keyword density and operating revenue, keywords such as ‘omnichannel retail’ ($r=0.96$) and ‘digital wholesale’ ($r=0.94$) show a strong correlation, aligning with the company’s digital strategy. The keyword ‘omnichannel’ has a relatively strong positive correlation for both revenue ($r=0.76$) and EBITDA-% ($r=0.73$). Considering the company’s strategy and these keyword correlations, Marimekko appears to be successful in translating its digital initiatives into financial performance.

4.4.3 Sanoma Oyj

Sanoma is a leading learning and media company based in Finland, with operations in 12 European countries. It provides printed and digital learning materials for K12 education, serving over 25 million students, and is the leading digital media company in Finland with brands like Helsingin Sanomat and Nelonen. Sanoma focuses on sustainable growth and aims to impact society positively through education and independent media.

In 2023, Sanoma’s operating revenue was approximately 1.4 billion euros. From 2018 to 2023 its operating revenue CAGR was -0.1%, and its average EBITDA-% was 25.49% making it the second most profitable company in the studied set. It had a total of 202 keyword mentions with an average density of 0.88. It had a 0.76 revenue-density correlation and a -0.76 EBITDA-%-density correlation (see Table 3).

Sanoma expanded into digital learning platforms with the acquisition of Iddink, a Dutch educational platform provider, in 2019. Sanoma has also continued its successful transition from print to digital formats, significantly growing its digital news subscriptions, particularly, with Helsingin Sanomat, which has seen strong increases in its digitally active subscriber base. The company has a long-term project to harmonize its digital platform offerings to improve efficiency, user experience, and accessibility across its learning products. (Annual reports 2018-23, Sanoma)

Examining the keyword-specific correlations, we can notice that ‘digital subscriptions’ ($r=0.83$) and ‘digital product’ ($r=0.69$) show relatively strong correlations with revenue growth, aligning with company’s digital expansion strategy. Some of the keywords used by Sanoma, show a strong positive correlation with EBITDA margin. For instance, ‘online service’ ($r=0.83$), indicating that the company’s digitalization initiatives may have enhanced its

profitability. Keywords like ‘Content personalization’ and ‘digital sales’ also have high correlation with EBITDA-% but their frequency is not high enough to be considered statistically valid. (See Table 5)

Table 5. Keyword specific correlations with EBITDA-% and Revenue for three example companies.

Kesko Oyj			
	<i>Keyword</i>	<i>EBITDA-%</i>	<i>Revenue</i>
customer data		0,69	0,95
online store		0,46	0,91
digital wholesale		0,43	0,87
digital customer		0,65	0,86
digital business		0,40	0,84
digital application		0,42	0,80
app		0,14	0,73
digital channel		0,56	0,69
online service		0,61	0,68
digital service		0,46	0,67
digital platforms		0,29	0,66
personalized customer experience		0,52	0,63
digital marketing		0,44	0,54
digital commerce		0,22	0,53
digital product		0,22	0,53
online product		0,22	0,53
digital customer experience		0,53	0,53
multichannel		0,30	0,51
digital sales		0,48	0,35
mobile application		0,45	-0,07
online outlet		0,17	-0,31
online purchasing		-0,11	-0,35
e-commerce		-0,94	-0,55
omnichannel retail		-0,94	-0,59
online sales		-0,32	-0,67
online retail		-0,99	-0,70
omnichannel		-0,86	-0,72
online shopping		-0,19	-0,73

Marimekko Oyj			
	<i>EBITDA-%</i>	<i>Revenue</i>	
omnichannel retail	0,48	0,96	
digital wholesale	0,47	0,94	
online growth	0,10	0,85	
omnichannel	0,73	0,76	
digital sales	0,36	0,62	
digital customer	0,49	0,19	
digital customer experience	0,49	0,19	
e-commerce	0,25	0,02	
digital commerce	-0,74	-0,06	
webstore	0,45	-0,08	
online store	0,33	-0,17	
social media	0,45	-0,30	
app	0,06	-0,32	
digital service	0,05	-0,59	
digital business	0,20	-0,60	
multichannel	-0,76	-0,73	
online channel	-0,85	-0,86	
online sales	-0,29	-0,89	

Sanoma Oyj			
	<i>EBITDA-%</i>	<i>Revenue</i>	
digital subscription	0,16	0,83	
digital product	-0,70	0,69	
app	-0,44	0,62	
e-commerce	-0,36	0,58	
digital business	-0,36	0,58	
data-driven marketing	-0,36	0,58	
digital consumer	-0,55	0,50	
digital channel	-0,57	0,33	
customer data	-0,68	0,31	
content personalization	0,86	0,13	
social media	0,36	-0,04	
digital application	-0,49	-0,05	
online advertising	-0,31	-0,34	
digital service	-0,23	-0,39	
digital sales	0,89	-0,40	
behavioral advertising	-0,31	-0,42	
digital platforms	0,35	-0,48	
online service	0,83	-0,50	
social media advertising	0,16	-0,68	

5 Discussion and Conclusions

This study aimed to explore the impact of sales and marketing digitalization on growth and profitability in the consumer goods and services sector. Additionally, differences in sales and marketing digitalization between larger and smaller companies was inspected. The findings from the text-mining analysis, as well as the financial performance comparison, shed light on the role of digitalization in shaping company resilience, growth, and operational efficiency.

5.1 Key findings

The findings reveal a mixed relationship between sales and marketing digitalization and financial performance metrics. From 2018 to 2023, the emphasis on sales and marketing digitalization increased by 44.5%, accelerated by the COVID-19 pandemic 2020-2021. This reflects how companies adopted to constraints on physical sales channels by shifting toward online platforms. However, the correlation between the sales and marketing keyword density and financial performance was not consistently strong across all companies.

Companies that prioritized digitalization before and during the pandemic appeared to outperform others in terms of both revenue growth and profitability. Particularly, companies like Kesko and Marimekko which prioritized customer-centric initiatives such as online stores and omnichannel strategies, demonstrated positive correlations between digitalization and financial outcomes. These findings align with previous studies suggesting that targeted digitalization can enhance operational resilience and create competitive advantages in uncertain environments. (Malhotra & Mishra, 2024)

Interestingly, differences in digital emphases between smaller and larger companies were not pronounced. Larger companies did tend to have a higher median sales and marketing digitalization keyword density, indicating a greater emphasis on digitalization. They did also have an increasing development in median keyword density over the period, when compared to medium and small companies. However, when examining the companies directly by revenue and keyword density, no clear statistical differences between small and large companies digital focus were found.

5.2 Implications for Research and Practice

This study contributes to the existing literature by providing an empirical analysis of the relationship between digitalization and financial performance from the perspective of sales and marketing during a dynamic period influenced

by the pandemic. The mixed correlations found here suggests that while digitalization can serve as a driver for growth and profitability, its impact may be context-dependent, shaped by a company's specific strategies and operational environment. The results support existing theories but also highlight the importance of digitalization beyond generic metrics, considering strategic nuances.

From a practical perspective, these findings suggest that companies can derive significant benefits from focusing on customer engagement and seamless digital experiences, especially during crises like the pandemic. For instance, practices such as integrating omnichannel strategies, leveraging data-driven insights to understand customers and providing digital platforms for effective communication and commerce have emerged as critical to maintaining both growth and profitability. The study also suggests that smaller companies can compete effectively by adopting agile and resource efficient digital strategies tailored to their specific needs.

5.3 Limitations and Future Research

The study's scope was limited by focusing solely on Finnish consumer goods & services companies listed on Nasdaq Helsinki, which might restrict the generalizability of findings to other regions. Additionally, the reliance on annual report data may have overlooked internal digital initiatives not highlighted in public documents. Differences in annual report length across companies could also have affected the accuracy of the keyword density measures. The timeframe of the text-mining analysis was also limited and might not provide fully accurate insights, as digitalization projects are often long-term, and their impact on company performance often comes with a lag. (Huang & Cheng, 2024; Truant et al., 2021)

Future research could expand this study by including companies from multiple countries and industries to understand the cultural and regional differences in digitalization adoption and the role of sales and marketing digitalization in driving growth and profitability, especially in times of disruption, such as the COVID-19 pandemic. Extending the timeframe of the study might provide new insights, clarifying what initiatives and what kind of companies are able to gain the most competitive advantage from sales and marketing digitalization.

5.4 Conclusion

Companies that successfully integrated digital tools, personalized customer experiences, and created seamless online experiences demonstrated improved financial outcomes compared to their peers. However, the study also indicates that digitalization's impact on financial performance is not straightforward nor uniform. The context in which digital initiatives are implemented, including the company's size, industry, and existing capabilities, plays an important role in determining their success. While larger companies tend to have more resources to invest in digital strategies, smaller companies can also benefit significantly through agility and targeted use of digital tools, complemented by outside specialist help to fill the knowledge caps.

Ultimately, the findings underline the necessity for companies to adopt a strategic, customer-focused approach to digitalization, rather than just increasing the initiatives in quantity. Firms should aim for alignment between their digital initiatives and consumer needs to effectively leverage digitalization for sustained growth and profitability. Moving forward, the insights from this study provide a foundation for understanding how digitalization efforts, particularly in sales and marketing, can enhance firm resilience and set the stage for future success in a rapidly evolving technological market landscape.

Generative AI disclosure: The use of OpenAI ChatGPT4o has been used in detecting grammar errors in the text and in improving the readability and clarity of the text.

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