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Dynamic Capabilities in Digital Marketing for SMEs

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Master in Management

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Iscte – Instituto Universitário de Lisboa

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Department of Marketing, Strategy and Operations

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I would like to dedicate this thesis to all the small business owners who question their ability to adapt to the fast-paced digital world. As this research shows, resilience and growth lie in embracing the opportunities that change brings.

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I- INTRODUCTION

In the rapidly changing environment driven by the pandemic and AI advancements, small firms especially face daunting adaptation challenges. Faruk et al. (2021) highlight the accelerated evolution in digital marketing, whereas Teece (2007) stresses the imperative of dynamic capabilities for continual innovation in these firms.

Nambisan, Wright, and Feldman (2019) delve into how digital and AI transformations specifically impact small business entrepreneurship, compelling them to leverage these shifts for survival and growth. This backdrop underlines the critical need for small enterprises to develop and maintain dynamic capabilities amidst such volatility.

Current research on dynamic marketing capabilities, particularly in the international context, offers significant insights for businesses. Pfajfar, Mitre, ga, and Shoham (2022) discuss the need for precise conceptualization of international dynamic marketing capabilities (IDMC) to effectively respond to volatile markets. Kim and Lim (2020) demonstrate that small businesses in emerging markets can leverage entrepreneurial orientation and networking capabilities for success in cross-border e-commerce. Ellström et al. (2021) identify key routines that facilitate digital transformation within firms, emphasizing the strategic integration of digital infrastructures.

Vu (2020) establishes a link between dynamic, innovation, and entrepreneurial capabilities and the financial and strategic performance of firms, proposing a model for future empirical studies. Finally, Pfajfar et al. (2022) highlight the importance of further exploring dynamic capabilities in international marketing to enhance firm performance.

While there is significant research on dynamic marketing capabilities, especially in larger and international firms, less is known about how small firms adapt to digital marketing changes. Specifically, the ways small firms detect market shifts, capitalize on digital opportunities, and manage their digital transformation are not well explored. This gap shows a need for detailed study into the dynamic capabilities that enable small firms to succeed in the digital marketing realm.

The aim of this thesis is to uncover the skills and dynamic capabilities small firms need to navigate the rapidly evolving digital marketing environment. Based on theories of

dynamic capabilities, the main question that will be investigated is: "**What are the essential skills and capabilities that empower small firms to effectively sense, seize, and transform opportunities in digital marketing?**"

To address these objectives, I will use a qualitative method approach, involving five small companies will help understand how they detect changes in the market, grab opportunities, and manage their digital transformation. This will provide deep insights into their strategies.

This thesis aims to connect the theory of dynamic capabilities with practical strategies for small firms in digital marketing. It will provide a detailed look at how these firms can adapt and flourish in the digital age, offering strategic guidelines for developing and implementing effective digital marketing strategies.

This research will thus add valuable insights into the operationalization of dynamic capabilities in the context of small businesses

II- LITERATURE REVIEW:

The rapid evolution of digital marketing, coupled with technological advancements, has significantly reshaped the business landscape, especially for small and medium enterprises (SMEs). Faruk et al. (2021) highlight that digital transformation has accelerated the pace of competition, pushing SMEs to adopt innovative strategies to survive and grow. In this context, the dynamic capabilities framework developed by Teece (2007) emphasizes the importance of sensing, seizing, and transforming capabilities for sustained competitive advantage. Continuous innovation is critical to enabling SMEs to remain flexible in an increasingly dynamic environment, and digital tools have proven essential in enhancing SMEs' resilience and adaptability. Digital transformation refers to the integration of digital technologies into all areas of business, fundamentally changing how SMEs operate and deliver value to their customers. Johnson et al. (2021) argue that digital capabilities within SMEs are key to enabling them to capitalize on changing market conditions, while the Organisation for Economic Co-operation and Development (OECD) (2021) underscores that although digital transformation enhances productivity and competitiveness, a lack of resources and digital skills remains a substantial barrier. These findings are further supported by Ellström et al. (2021), who explain that digital tools help SMEs embed operational routines that support dynamic capabilities, enabling them to sense and respond to market changes more effectively.

Artificial Intelligence (AI) is playing an increasingly vital role in the digital transformation of SMEs, driving decision-making improvements and providing opportunities for businesses to better sense and seize opportunities by automating processes and analyzing data in real time (Haefner et al., 2021). Lu et al. (2022) further expand on this by analyzing the post-pandemic opportunities that AI has created for SMEs, noting its role in reducing operational costs, automating tasks, and enhancing decision-making capabilities. However, these advantages are accompanied by significant challenges, such as the high costs of implementation and a shortage of skilled personnel to manage these technologies. Schwaewe et al. (2024) also highlight that while AI presents substantial potential, many SMEs still face resource constraints

and technological barriers, which prevent widespread adoption. These findings suggest that although AI can be transformative, overcoming implementation challenges is crucial for SMEs to realize its full benefits.

The integration of digital marketing, particularly during periods of crisis, has been essential for SMEs to maintain operations and sustain growth. Bruce et al. (2023) provide empirical evidence from Ghana demonstrating how the adoption of digital marketing strategies directly contributes to the sustainable growth of SMEs by improving customer relationship management and maintaining steady growth, even under challenging economic conditions. Similarly, Patma et al. (2021) emphasize the role of social media marketing in sustaining Indonesian SMEs during the COVID-19 pandemic, highlighting that platforms like Facebook and Instagram were crucial in maintaining customer engagement and driving sales when traditional operations were disrupted. These studies underscore the vital role digital marketing plays in supporting SME resilience, especially during periods of economic uncertainty, by enhancing customer reach and engagement through relatively cost-effective channels.

Dynamic capabilities, which refer to a firm's ability to integrate, build, and reconfigure internal and external competencies, are also critical for navigating digital transformation. Originally described by Teece (2007) as foundational for sustained competitive advantage, dynamic capabilities are particularly relevant for SMEs facing globalization and rapid technological changes. According to Qvarfordt & Aadan (2021), SMEs need to develop these digital dynamic capabilities to effectively manage challenges related to globalization, with AI playing a key role in transforming traditional business processes. Kallmuenzer et al. (2024) present an empirical study showing that SMEs investing in digital technologies see significant improvements in both customer engagement and operational efficiency. Similarly, Vu (2020) highlights that digital adoption improves overall business performance, particularly in customer management and operational flexibility. These findings collectively emphasize that SMEs with a strategic focus on developing digital infrastructure are better positioned to compete in increasingly digitalized markets.

While digital transformation and AI offer substantial benefits to SMEs, several challenges hinder widespread adoption, creating a disparity between different regions

and levels of technological advancement. Yusuf et al. (2024) point out that SMEs in developing regions face significant barriers, including high implementation costs, a lack of technological infrastructure, and a shortage of skilled personnel. This digital divide positions SMEs in more developed regions to take advantage of digital tools and AI more effectively. Taherizadeh & Beaudry (2023) add that even in technologically advanced regions, SMEs struggle with change management and organizational resistance, which makes adopting new technologies a daunting task. Addressing these barriers requires targeted support, such as investments in digital skills development, improved technological infrastructure, and effective change management strategies, to ensure that SMEs can fully leverage the benefits of digital transformation and AI.

This literature review has demonstrated that digital transformation, AI, and digital marketing are pivotal for small firms to remain competitive and seize growth opportunities. To truly leverage these opportunities, SMEs must develop essential skills and dynamic capabilities that empower them to effectively sense, seize, and transform in the evolving digital landscape. The ability to sense opportunities requires cultivating skills in market analysis, data-driven decision-making, and customer insight extraction. AI plays a crucial role in enhancing these capabilities by automating data analysis and enabling firms to respond quickly to emerging market trends (Haefner et al., 2021; Lu et al., 2022). Seizing opportunities depends on a firm's capacity to act on identified opportunities, which involves developing skills in digital marketing strategy, content creation, and social media engagement (Bruce et al., 2023; Patma et al., 2021). Finally, the ability to transform requires a commitment to long-term innovation and adaptation, involving both technical skills and the capability to embed digital tools into the firm's processes and routines, which dynamic capabilities enable (Teece, 2007; Qvarfordt & Aadan, 2021). However, barriers such as the high cost of digital tools, a lack of skilled personnel, and organizational resistance remain challenges to widespread adoption (Yusuf et al., 2024; OECD, 2021). Overcoming these challenges will require targeted efforts through digital skills development, infrastructure investment, and strategic change management.

In conclusion, SMEs must invest in building the essential skills and dynamic capabilities that allow them to effectively sense, seize, and transform opportunities in

digital marketing. By doing so, they will not only survive but thrive in the increasingly competitive and digital-driven marketplace.

Author(s)	Year	Focus of Study	Key Findings	Relevance to Current Study
Bruce et al.	2023	Digital marketing adoption for SME growth	Showed how digital marketing tools contributed to the sustainable growth of SMEs in Ghana	Demonstrates the value of digital tools in sustaining growth and customer relationships
Ellström et al.	2021	Digital tools and dynamic capabilities in SMEs	Explored how digital tools support dynamic capabilities in small firms	Emphasizes the role of digitalization in embedding operational routines
Faruk et al.	2021	Evolution of digital marketing	Emphasized the rapid pace of digital marketing changes necessitating swift adaptation by businesses	Underlines the need for agility in dynamic capabilities in SMEs
Haefner et al.	2021	AI and innovation management	Explored how AI supports SMEs in optimizing decision-making and sensing opportunities	Highlights the role of AI in enhancing dynamic capabilities
Johnson et al.	2021	Digital capabilities within dynamic capabilities	Illustrated how digital technologies integrate into business processes to respond to market changes	Highlights the importance of agility in the digital transformation of SMEs
Kallmuenzer et al.	2024	Digitalization and SME performance	Showed that SMEs adopting digitalization see improvements in customer engagement and operational efficiency	Highlights the link between digital skills and SME performance
Kim & Lim	2020	Cross-border e-commerce success factors for small businesses	Found that entrepreneurial orientation and networking are crucial for international e-commerce	Suggests areas of capability development for global market engagement
Lu et al.	2022	AI-enabled opportunities for SMEs post-pandemic	Explored how AI enables SMEs to automate processes and improve decision-making	Highlights both the opportunities and challenges of AI for SMEs

Nambisan, Wright, & Feldman	2019	Impact of digital and AI transformations on entrepreneurship	Discussed how small businesses must adapt to technological shifts to survive and thrive	Highlights the intersection of entrepreneurship with dynamic capabilities
Organisation for Economic Co-operation and Development (OECD)	2021	Digital transformation of SMEs	Discussed opportunities and challenges faced by SMEs during digital transformation	Provides insight into the global context of SME digital transformation
Patma et al.	2021	Social media marketing and SME sustainability	Demonstrated that social media marketing was vital for sustaining SMEs during the COVID-19 pandemic	Highlights the importance of digital marketing tools for business continuity
Pfajfar, G., Mitre, ga, M., & Shoham, A.	2022	International dynamic marketing capabilities	Identified the development and challenges of dynamic marketing capabilities in international markets, and provided a research agenda for future studies.	Provides a deeper understanding of how dynamic capabilities apply in an international context, informing SME global strategies.
Pfajfar et al.	2022	Need for conceptualizing international dynamic marketing capabilities	Argued for precise definitions to effectively respond to market volatility	Points to the importance of understanding dynamic capabilities in international contexts
Qvarfordt & Aadan	2021	Digital dynamic capabilities for SMEs	Focused on how SMEs develop digital dynamic capabilities to handle market shifts	Demonstrates the importance of AI in enhancing SMEs' dynamic capabilities
Schwaewe et al.	2024	AI adoption in SMEs	Examined the status quo of AI adoption in SMEs, noting	Highlights the need for digital

			resource and technological barriers	infrastructure to support AI adoption
Smith & Tushman	2020	Dynamic capabilities in global markets	Analyzed how firms manage contradictions between exploration and exploitation strategies globally	Provides a perspective on dynamic capabilities for firms operating internationally
Taherizadeh & Beaudry	2023	AI-driven transformation in Canadian SMEs	Analyzed the impact of AI-driven digital transformation on SMEs' operational efficiency	Provides insights into how AI fosters innovation and adaptation in SMEs
Teece	2007	Dynamic capabilities and sustainable enterprise performance	Stressed the importance of dynamic capabilities for continuous innovation and adaptation	Provides a foundational theory for dynamic capabilities
Vu	2020	Digital tools and business performance in SMEs	Showed that digital tool adoption enhances customer management and operational flexibility	Points to the operational benefits of digitalization for small businesses
Wei, Yi, & Guo	2020	Sustainability and dynamic capabilities	Argued that firms must integrate environmental sustainability into their strategic planning	Emphasizes the need to balance sustainability and digital transformation
Yusuf et al.	2024	Challenges in AI adoption for SMEs	Identified barriers to AI adoption, including high costs and lack of skilled personnel	Emphasizes the challenges SMEs face in leveraging AI technologies

III- METHODOLOGY

The primary goal of this study is to examine how small and medium-sized enterprises (SMEs) sense, seize, and reconfigure resources in response to changes in digital marketing dynamics. This comparative case study involves five SMEs.

A qualitative approach was chosen for this study as it allows for more sincere and detailed insights into how SMEs perceive and engage with digital marketing. Semi-structured interviews were employed to facilitate in-depth discussions, enabling participants to express their views freely while focusing on the specific aspects of dynamic capabilities as outlined by Teece (2007). This method is particularly appropriate for understanding the internal dynamics and adaptation processes of SMEs as they navigate opportunities and challenges in digital marketing.

Data collection was carried out through online interviews, depending on the availability and preference of the participants. Four of the interviews were conducted via video conferencing tools (Microsoft Teams), offering flexibility and convenience for participants. One interview, conducted with Company BE, was carried out over the phone. This online approach allowed for adaptability while still ensuring rich data collection, particularly in understanding how SMEs manage their dynamic capabilities.

All interviews followed a semi-structured format, using a previously developed questionnaire to guide the discussion while allowing open-ended responses to yield deeper insights into each company's unique practices and challenges. Despite being conducted online, attention was paid to verbal cues to grasp the subtleties of how SMEs navigate digital marketing challenges.

The interviews took place between May and August 2024:

- Company N: Friday, May 31st, 09:00 AM
- Company S: Friday, May 31st, 04:00 PM
- Company HC: Friday, June 7th, 06:30 PM
- Company E: Monday, June 10th, 10:00 AM
- Company BE: Thursday, August 22nd, in the morning

The first four companies were interviewed via Microsoft Teams, through contacts provided by partners and clients of Company E, while the final interview with Company BE was conducted over the phone through a private network. This last company was intentionally chosen to provide a contrasting perspective compared to the more "traditional" businesses, allowing for an examination of potential differences in their digital marketing approaches.

A brief description of those five companies is essential to cope with this methodology:

- **Enterprise 1 (N):** Offers services in business development and sales intelligence, focusing on providing clients with detailed information and insights about business leaders and decision-makers. This aids organizations in identifying and connecting with key stakeholders to drive business growth.
- **Enterprise 2 (S):** Specializes in communication, marketing, and digital transformation. They help companies enhance their brand image and visibility through strategic communication campaigns and digital solutions that engage target audiences effectively.
- **Enterprise 3 (HC):** This company focuses on sales performance consulting and training. They provide a range of services designed to enhance the sales capabilities of individuals and organizations through innovative training solutions and tools that improve sales efficiency and effectiveness.
- **Enterprise 4 (E):** Specializes in B2B telemarketing and tele-sales, focusing on leveraging effective B2B databases and digital marketing to enhance commercial development. With over 30 years of B2B expertise, offers services that include client portfolio management and lead generation across various industries such as banking, insurance, IT, and health.
- **Enterprise 5 (BE):** French SME offering gourmet, low-sugar treats, focusing on delicious, healthier alternatives for people managing their sugar intake.

This approach ensures a diverse but relevant sample of companies that share some contextual similarities but differ in their strategies and outcomes, enhancing the comparative nature of the study.

The data collected will be subjected to a comparative analysis to identify patterns, differences, and insights across the participating SMEs. This analysis will focus on how

these companies sense market changes, seize opportunities, and manage their resources, specifically in adapting to digital marketing dynamics. The insights will help in understanding the practical application of dynamic capabilities theory in the context of digital marketing within SMEs.

All participants were informed about the study's purpose, the use of the data collected, and their rights to confidentiality and withdrawal. Consent will be obtained from all participants prior to the interviews.

Questionnaire for Interviews on Dynamic Capabilities in Digital Marketing for SMEs

Section 1: Sensing

- 1) Environmental Scan: How do you assess and observe the changes and trends in the digital marketing environment?
- 2) Opportunity Recognition: Can you say that you recently managed to identify an opportunity for your company regarding digital marketing? If yes, how was it identified?
- 3) Customer Insights: What feedback and data on customers do you use to perceive the new opportunities regarding marketing? Do you collect feedback and data from them?
- 4) Competitive Analysis: How often do you analyze competitors' strategies in digital marketing? What findings did you discover?

Section 2: Seizing

- 1) Strategy Implementation: Once a digital marketing opportunity is identified, what process do you follow to implement related strategies?
- 2) Resource Allocation: How do you select and allocate scarce resources to new digital marketing strategies?
- 3) Technology Adoption: Explain the framework or process underlying your company's decisions to adopt new digital marketing technologies or platforms
- 4) Skills Development: What training or development initiatives have you undertaken to enhance your team's digital marketing capabilities?

Section 3: Managing

- 1) Adaptation to Change: Can you provide an example of a significant change your company has made in this digital marketing domain in response to customer or market feedback
- 2) Innovation in Processes: How does your company develop or innovate its digital marketing processes for performance improvement?
- 3) Partnerships and Collaborations: How do you secure capacities development deals or enhance internal capabilities development through merger or acquisition?
- 4) Measuring Success: What indicators do you use to measure the success of your digital marketing efforts?

IV- CONTENT ANALYSIS

A)Literature review Reminder

Teece (2007) conceptualizes dynamic capabilities as a firm's ability to:

- Sensing: Identify and shape opportunities and threats in rapidly evolving markets.
- Seizing: Mobilize resources to capture value from identified opportunities.
- Managing (or transforming): Reconfigure assets and organizational processes to maintain competitiveness and adapt to change.

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The literature stresses the importance of integrating both analytical (e.g., formal market research) and intuitive (e.g., customer feedback, industry insights) approaches to sensing opportunities (Faruk et al., 2021). Additionally, seizing opportunities requires strategic resource allocation and the adoption of new technologies (Johnson et al., 2021). Finally, firms must continually transform and manage their processes to sustain long-term competitiveness in volatile environments (Ellström et al., 2021).

B) Content Analysis Table

Category	Company 1	Company 2	Company 3	Company 4	Company 5
Sensing	<p>- Analytical: Uses LinkedIn, press, competitive analysis (U.S.).</p> <p>- Intuitive: Attends webinars, engages influencers.</p> <p>- Collaborative: Works with agencies for SEA, SEO.</p> <p>- Formal: Structured processes through agencies.</p> <p>- Team Structure: SME with external providers.</p>	<p>- Analytical: Uses LinkedIn Ads.</p> <p>- Intuitive: Attends events, relies on internal insights.</p> <p>- Non-Collaborative: Primarily individual decision-making.</p> <p>- Informal: No structured formal methods.</p>	<p>- Analytical: Client monitoring and competitive analysis (U.S.).</p> <p>- Intuitive: Gathers customer feedback informally.</p> <p>- Collaborative: Feedback loop with clients.</p> <p>- Formal: Data-driven approach using automation tools.</p> <p>- Team Structure: Mixed internal teams with clients involved.</p>	<p>- Analytical: Conferences, webinars, competitor research.</p> <p>- Intuitive: Mystery shopping, reading specialist publications.</p> <p>- Collaborative: Engages communication agencies.</p> <p>- Formal: Strong formal processes for competitive analysis.</p> <p>- Team Structure: Formal team structure involving marketing and external agencies.</p>	<p>- Analytical: Uses a community management agency, monitors website through external providers.</p> <p>- Intuitive: Responds to posts via community manager.</p> <p>- Collaborative: Works with providers for website, SEA/SEO.</p> <p>- Informal: Pragmatic competitor analysis using AI-powered search engine.</p> <p>- Team Structure: Informal management of sensing, limited subteam involvement.</p>

Seizing	<p>- Strategy Implementation: Testing strategies in digital marketing based on identified opportunities.</p> <p>- Resource Allocation: Project-based allocation using consultants, project managers, and campaign executors.</p> <p>- Technology Adoption: Brand-driven technology adoption.</p> <p>- Team Structure: Collaboration between external consultants and internal teams.</p>	<p>- Strategy Implementation: Focuses on scaling efforts through massification.</p> <p>- Resource Allocation: One-time event-driven allocation (e.g., Olympics campaign).</p> <p>- Technology Adoption: Adopts widely available technologies (Google Ads, LinkedIn).</p> <p>- Team Structure: Minimal formal collaboration, small internal team.</p>	<p>- Strategy Implementation: Extensive testing of strategies before implementation.</p> <p>- Resource Allocation: Focus on email automation, database qualification, LinkedIn prospecting.</p> <p>- Technology Adoption: Informal adoption through word of mouth.</p> <p>- Team Structure: Internal team manages digital strategy with data-driven resource allocation.</p>	<p>- Strategy Implementation: Multi-channel approach (mailing, SEO, events).</p> <p>- Resource Allocation: Allocates 50K budget for digital marketing with agency support.</p> <p>- Technology Adoption: Leverages agencies and IT providers.</p> <p>- Team Structure: Strong collaboration between internal marketing and external IT teams.</p>	<p>- Strategy Implementation: Based on informal discussions among leaders.</p> <p>- Resource Allocation: Event-based resource allocation (e.g., Olympics promotion).</p> <p>- Technology Adoption: Adopts new tech based on word-of-mouth and competition monitoring.</p> <p>- Team Structure: Small, informal internal team, with external providers handling specific tasks.</p>
Managing	<p>- Adaptation to Change: AI integration for multilingual marketing campaigns.</p>	<p>- Adaptation to Change: Adjusts social media communication during tax season.</p>	<p>- Adaptation to Change: Shifted to multilingual digital marketing with AI.</p> <p>- Process</p>	<p>- Adaptation to Change: Increased focus on digital marketing (50% increase in five</p>	<p>- Adaptation to Change: Limited resources compared to larger competitors, but strong social</p>

	<p>- Process</p> <p>Innovation: Relies on U.S. trends and integrates innovation.</p> <p>- Collaborative Partnerships: Engages external partners for managing innovation.</p> <p>- Team Structure: Teams reconfigured to adopt new AI-driven processes.</p>	<p>- Process</p> <p>Innovation: Real-time marketing strategies based on current events.</p> <p>- Partnerships: Limited formal partnerships.</p> <p>- Team Structure: Informal process, little team restructuring.</p>	<p>Innovation: Continuous monitoring of U.S. trends.</p> <p>- Partnerships: Engages partners for strategy support.</p> <p>- Team Structure: Reconfigured internal teams focused on data-driven transformations.</p>	<p>years).</p> <p>- Process</p> <p>Innovation: Uses case studies and training to innovate.</p> <p>- Collaborative Partnerships: Engages data partners for campaign success.</p> <p>- Team Structure: Structured team organization to adapt processes over time.</p>	<p>media presence.</p> <p>- Process</p> <p>Innovation: Innovation through word-of-mouth and replicating successful market practices.</p> <p>- Partnerships: Builds B2B partnerships with caterers and sports clubs.</p> <p>- Team Structure: Small, flexible teams that collaborate with external partners for key initiatives.</p>
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C) Cross Case Analysis:

1) Sensing Capabilities

Common Ground:

Across all five companies, there is a clear reliance on external sources to sense opportunities in digital marketing. Companies N, HC, E, and BE use platforms like LinkedIn or other digital tools to monitor market trends, and Company E even incorporates mystery shopping for competitive analysis. Company N stated, "***We regularly check competitors and market trends using automated tools. It helps us identify when a new trend is emerging in digital marketing.***" This aligns with Faruk et al. (2021), who emphasize the importance of agility in sensing digital market trends, especially for SMEs in dynamic environments.

Most companies balance formal processes with intuitive methods. Companies N, HC, and BE use informal competitor insights or attend industry events, echoing Teece's (2007) emphasis on combining formal market research with intuitive, experiential learning. However, Company S relies heavily on informal, internal decision-making: "***We don't have the budget for formal tools, but we stay informed through our local network and customer feedback.***" This supports Yusuf et al. (2024), who highlight the reliance of smaller firms on informal sensing methods due to limited resources.

Beyond digital platforms, companies also emphasize the importance of engaging with their networks and broader business ecosystems to stay attuned to market shifts. This aligns with the work of Nambisan et al. (2019), who argue that entrepreneurs need to embed themselves in networks to gather the necessary signals from the market. For example, Company E participates in industry-specific groups on LinkedIn and attends webinars to ensure they don't miss emerging trends in their sector. Company HC echoed this sentiment, stating, "***Our best insights often come from informal conversations with partners and peers during networking events. These insights often point us toward trends we might not catch through formal research.***" This emphasis on network-based sensing is particularly important for SMEs with fewer resources to invest in formal market research tools, reflecting the adaptive nature of smaller firms described by Yusuf et al. (2024).

Differences:

The formality of the processes varies significantly. Companies N and E have highly structured, formal processes for market sensing, involving external agencies and formal research methods such as competitor analysis, conferences, and workshops. Company N uses formal contracts with marketing research firms to conduct biannual competitor analyses, which has helped them identify emerging trends early.

In contrast, Company S takes a more reactive approach, focusing primarily on immediate market demands and using tools like LinkedIn Ads without much long-term strategic planning. *"We don't have the luxury of long-term planning or hiring external agencies. We act based on immediate needs and what we can afford at the time."* (Company S)

Another key difference is in technological sophistication. Companies N and BE employ AI-powered tools for competitor analysis and automation, providing them with advanced insights into market shifts. *"We use AI-driven analytics tools that help us track competitors and automate much of the process, which would otherwise be impossible with our small team."* (Company BE)

A key differentiator in sensing capabilities lies in how companies incorporate both structured and unstructured data sources. Company N, for instance, heavily invests in data analytics tools to continuously monitor market metrics, employing dashboards that provide real-time updates on customer behavior. In contrast, Company BE relies more on qualitative insights from customer interactions and informal competitor checks. *"We don't have the same tools or budget as the bigger players, but we keep our ear to the ground by talking to customers directly and seeing what's working for others in our industry,"* said a representative from Company BE. This reflects the findings of Schwaeke et al. (2024), who emphasize that smaller firms often blend informal intelligence gathering with basic digital tools to make informed decisions. The reliance on formalized tools versus informal strategies reflects a broader divide in how resource-rich and resource-constrained firms approach opportunity sensing.

2) Seizing Opportunities

Common Ground:

All companies allocate resources to seize identified opportunities, with Companies N, E, and HC investing in SEO, SEA, and email automation. Company HC noted, *"We've dedicated a good part of our budget towards improving our SEO and lead tracking through digital tools."* This aligns with Teece's (2007) framework, which suggests that once opportunities are identified, companies must commit resources to capture value.

All companies acknowledge the importance of digital tools in their strategies. Companies N, E, and HC invest in SEO, SEA, and email automation. *"Our biggest campaigns run through our SEO and email automation tools, which are critical in reaching new customers."* (Company E)

One notable commonality across the companies is their strategic prioritization of digital tools that enhance customer targeting and engagement. Tools like Google Ads and SEO are widely used because they allow SMEs to compete with larger firms by reaching highly specific audiences. Company N noted, *"Our SEO efforts have been crucial in reaching niche markets, allowing us to punch above our weight."* This aligns with Patma et al. (2021), who argue that targeted digital marketing is a key lever for smaller businesses seeking to maximize their impact with limited resources.

Additionally, many companies emphasize automation tools as vital for scaling their operations without increasing costs. For instance, Company HC uses email marketing automation to manage customer relationships, reducing the need for manual follow-ups. This highlights how digital tools serve as an equalizer for SMEs, enabling them to seize opportunities in the same digital spaces as larger enterprises.

Differences:

The manner in which resources are allocated differs. Companies N and E follow a structured resource allocation process, with formal budgets and collaboration with external agencies.

"Our marketing budget is broken down per campaign, and we allocate based on projections for reach and ROI." (Company E)

In contrast, Companies S and BE take a more ad hoc approach. ***"We don't have a fixed marketing budget. We allocate resources based on what's coming up, like events or product launches."*** (Company S)

The process of technology adoption also varies. Companies N and E work closely with external partners to systematically adopt new tools, such as CRM platforms and advanced AI analytics. ***"We test new tools in collaboration with our IT partner before rolling them out across the company."*** (Company N) On the other hand, Companies S and BE adopt technologies informally, based on immediate needs or word-of-mouth recommendations.

A stark contrast can be observed in how companies approach resource flexibility. Company S maintains an adaptive approach, with its budget shifting based on immediate needs and external opportunities, such as seasonal campaigns. ***"We operate on a rolling budget. If something comes up, like a major sporting event, we'll shift resources towards that,"*** explained Company S. In contrast, Company E prefers a long-term, fixed budget approach, allowing for more extensive planning of marketing initiatives. ***"Our €50,000 budget is planned a year in advance, with adjustments only made for exceptional circumstances,"*** noted Company E.

This difference reflects the diverse financial strategies SMEs adopt, as described by Kallmuenzer et al. (2024), where flexibility is often a necessity for smaller firms but can sometimes lead to missed long-term opportunities when firms are too focused on short-term gains.

3) Managing Opportunities

Common Ground:

All companies demonstrate adaptability in response to market changes, an essential part of dynamic capabilities. Companies N, HC, and E have integrated technologies like AI to manage campaigns more efficiently, while Company BE focuses on expanding its social media presence: *"We've scaled our digital presence on social media despite having fewer resources to work with."* This reflects Ellström et al. (2021), who emphasize the role of digital tools in enabling SMEs to adapt and manage their resources in dynamic environments.

A consistent theme among all companies is their willingness to experiment and iterate in the face of market changes. Company HC stated, *"We've had to pivot our strategy several times over the past two years, particularly during the pandemic, when digital became our main channel for communication."* This aligns with the concept of dynamic adaptability, as described by Teece (2007), where companies must not only respond to market shifts but proactively seek out and implement innovations.

Even smaller firms like Company BE noted, *"We're always experimenting, even if it's on a small scale. Testing different social media platforms or tweaking our website is something we do regularly."* This iterative approach reflects the necessity for SMEs to constantly refine their strategies to remain competitive in an increasingly digital marketplace, a point also highlighted by Ellström et al. (2021).

Differences:

Companies N, HC, and E exhibit a more structured approach to process innovation, particularly through the use of AI and other advanced technologies. For instance, Company N introduced multilingual marketing campaigns supported by AI, allowing them to better target international markets. *"We used AI to tailor our marketing campaigns for different languages, which has really opened up new customer segments."* (Company N)

In contrast, Company S focuses on smaller, tactical changes, such as adjusting their social media communication around tax season, rather than broader process innovations. *"We tweak our social media posts during peak tax season, but we don't have the capacity to overhaul our entire strategy."* (Company S)

Collaborative partnerships play a key role for Companies N, HC, and E, who use external agencies and partners to drive process innovation. Company E emphasized their strong ties with data providers, stating, *"Our collaboration with external data providers has been crucial in refining our campaigns."* In contrast, Company S lacks formal partnerships, which may hinder its ability to innovate as quickly as its competitors. *"We handle everything in-house, which limits how fast we can adopt new strategies."* (Company S)

The disparity in how companies approach organizational transformation is closely tied to their resource availability and risk appetite. Company N, with its larger marketing budget and in-house technical team, is able to implement advanced AI solutions that streamline their operations. *"We've rolled out AI-driven customer segmentation that helps us personalize our campaigns at scale,"* said a manager at Company N. On the other hand, Company BE takes a more cautious approach, preferring to adopt new tools only after they've been proven by competitors. "We can't afford to be on the bleeding edge of technology, but we do keep an eye on what's working for others before making our move," explained Company BE. This cautious approach to transformation reflects the challenges identified by Kallmuenzer et al. (2024), who found that SMEs often lag behind larger firms in adopting cutting-edge innovations due to financial constraints and the fear of misallocating resources.

D) Synthesis

1. Sensing

Across the five SMEs, there is a consistent reliance on external tools to sense opportunities, particularly through digital platforms like LinkedIn, competitor analysis, and customer feedback. This aligns with Teece's (2007) emphasis on blending formal and informal processes for market sensing. Companies N and E leverage both structured and collaborative approaches, using external agencies for competitor research and attending specialized industry events. This mirrors the advantages of formalized sensing processes described by Johnson et al. (2021). In contrast, Company S relies heavily on informal internal processes, limiting its ability to comprehensively scan the environment. Company S noted, "We mostly focus on our immediate needs and competitors, without much long-term planning. Companies with more advanced tools, like Company N, are better equipped to detect subtle shifts in the digital landscape, showing the importance of technological sophistication as noted by Faruk et al. (2021).

2. Seizing

All companies allocate resources to capitalize on identified opportunities, but the level of structure in their allocation varies. Companies N and E adopt a more strategic, project-based approach: "Our marketing budget is well planned and broken down by campaigns," said Company E. This strategic allocation of resources aligns with Teece's (2007) theory that companies must commit resources to effectively seize opportunities. Companies S and BE, however, rely on more flexible, event-driven allocation: "We adapt based on events and promotions rather than sticking to a fixed budget," noted Company BE.

3. Managing and Transforming

While all companies demonstrate adaptability, the scale of innovation and the formality of their transformation processes differ. Companies N, HC, and E show strong capabilities in reconfiguring their resources through advanced technologies like AI: "We've fully embraced AI tools to enhance our marketing efforts," said Company N. In contrast, Company S focuses on minor adjustments, lacking broader transformation efforts: "We make smaller, more tactical changes based on seasonal trends." Collaborative partnerships are key to the success

of Companies N, HC, and E, while the insular approach of Company S may limit its ability to innovate at the same pace.

V- CONCLUSION

This study set out to answer the central question: What are the essential skills and capabilities that empower small firms to effectively sense, seize, and transform opportunities in digital marketing? Through an in-depth analysis of five SMEs and their dynamic capabilities, this research has uncovered several key insights regarding how these businesses navigate the complexities of digital marketing.

The findings reveal that the essential skills and capabilities for SMEs to thrive in digital marketing can be grouped into three categories: sensing opportunities, seizing opportunities, and transforming operations to adapt to changes in the market.

SMEs must develop the ability to actively monitor market trends and customer needs. This is done through a mix of formal tools (e.g., SEO platforms, market research tools) and informal processes (e.g., customer feedback, industry networking). Firms like Company N and Company E demonstrate how structured, formal approaches can provide deeper insights, while smaller firms like Company BE rely on informal methods to gather intelligence. The ability to sense opportunities is crucial, as it allows firms to identify shifts in the digital landscape early and adapt their strategies accordingly.

Once opportunities are identified, SMEs must have the strategic foresight and resource allocation skills to capitalize on them. The ability to prioritize investments in digital marketing tools, such as automation platforms and SEO strategies, is vital for firms to compete effectively. Company HC and Company E show how structured resource allocation and digital marketing tools enable them to seize opportunities with precision. In contrast, smaller firms like Company S use more flexible, event-driven approaches, which provide adaptability but may lead to missed long-term gains.

The ability to transform internal processes and structures in response to digital marketing demands is another critical capability. Larger firms like Company N and Company E are able to implement advanced technologies such as AI to streamline their operations and remain competitive. However, smaller firms like Company BE show that even incremental changes, such as upskilling existing employees, can drive meaningful transformation over time. The adaptability of these firms highlights their resilience and capacity for long-term growth, even in the face of resource constraints.

This research confirms the importance of dynamic capabilities outlined by Teece in 2007. The study shows how these capabilities manifest in the context of SMEs operating in digital marketing environments. Larger firms tend to formalize their approaches to sensing, seizing, and transforming, whereas smaller firms rely on more flexible and informal methods, often driven by necessity rather than strategy. This variation in approaches underscores the diversity of strategies that SMEs can adopt to build their dynamic capabilities, particularly in resource-constrained environments.

SMEs should blend formal tools like SEO platforms with informal methods like customer feedback and networking to stay agile and spot trends. Resource allocation should be strategic yet flexible, allowing for long-term planning while adapting to immediate opportunities. Incremental innovation, such as regularly testing new tools and upskilling employees, is key to remaining competitive without overextending resources. External partnerships with agencies or technology providers can help SMEs access advanced tools without heavy internal investment. Finally, gradual investment in AI and automation will improve efficiency, and maintaining a customer-centric digital presence will enhance engagement and competitiveness.

This study is limited by its focus on a small sample of five SMEs. Future research could expand this sample to include a broader range of industries and geographic locations, providing a more comprehensive view of how SMEs develop their dynamic capabilities in digital marketing. Additionally, future studies could examine the role of emerging technologies, such as AI and machine learning, in shaping the dynamic capabilities of small firms.

The ability to effectively sense, seize, and transform opportunities in digital marketing is crucial for the long-term success of SMEs. While larger firms may have more resources to formalize these processes, smaller firms can leverage flexibility, adaptability, and incremental innovation to remain competitive. The findings of this study provide a roadmap for SMEs looking to develop the essential skills and capabilities needed to navigate the ever-changing digital marketing landscape.

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