

Evaluating Paid Digital Marketing Strategies to Raise Brand Awareness in B2B Startups

Master Thesis

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Management summary

Building brand awareness efficiently is essential for B2B startups. They often operate with limited time and resources, and without a clear plan, which increases the risk of budgets being wasted on ineffective marketing activities. Digital marketing offers opportunities, particularly through paid advertising. For B2B companies, LinkedIn Ads and Google Ads are often considered the most relevant platforms.

Nevertheless, there is a lack of scientific evidence on which of these two platforms is most suitable for B2B startups. According to the AIDA model, the first step in the purchasing process is to generate attention, which was the focus of this study. As a result, startups are unsure where to allocate their limited resources best. This study, therefore, investigated the following question: Which paid digital marketing strategy – LinkedIn Ads or Google Ads – is most suitable for B2B startups to increase brand awareness?

To answer this research question, an A/B test was conducted to compare the effectiveness of LinkedIn Ads and Google Ads in increasing brand awareness for a B2B startup. One advertisement was placed on both platforms, promoting the same service to a comparable target audience. The experiment was carried out for a company that provides services to schools.

The results indicate that Google Ads outperformed LinkedIn Ads in both reach and cost-efficiency. While LinkedIn Ads generated only 16 clicks at an average cost per click (CPC) of €8.75 and a click-through rate (CTR) of 0.38%, Google Ads achieved 1,419 clicks with a significantly lower CPC of €0.10 and a CTR of 1.5%. This means a click via LinkedIn was approximately 8,650% more expensive.

These results align with previous studies that emphasize the effectiveness of Google Ads in generating traffic. Although LinkedIn is generally regarded as an effective B2B marketing platform, this study suggests it is less efficient in generating attention.

For B2B startups with limited budgets, it is therefore recommended to invest primarily in Google Ads during the awareness phase. This channel provides greater visibility and engagement at lower costs. LinkedIn may be considered in later stages of the marketing funnel, such as lead generation and conversion, but appears to be less suitable for initiating brand awareness.

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1. Introduction

Marketing is a way for companies to make potential customers aware of their products or services (Kusumawati et al., 2019). In a world where 5.52 billion people use the internet (Statista, 2024), it has become necessary for companies to adapt their marketing strategies to remain competitive (Al-Sahlawi et al., 2024). Especially with the growing popularity of startups, digital marketing has become a valuable competitive tool. Starting a startup is a significant challenge; without a plan, time and budget may be wasted on ineffective or misaligned marketing efforts (Garg et al., 2022). Digital marketing has also shown to be an indispensable strategic tool for business services. In this sector, where competitiveness and targeted communication are essential, digital marketing is crucial in reaching the right audience and maintaining client relationships (Murti et al., 2023). For companies in general, digital marketing helps build brand awareness, generate leads, and increase customer loyalty (Chavadi et al., 2023).

Vieira et al. (2019) distinguish four categories within digital marketing channels: owned media, earned media, digital inbound marketing, and paid media. Owned media refers to channels that a company controls directly, such as its website or social media profiles, while earned media involves word-of-mouth marketing and content shared by others. Digital inbound marketing focuses on organically attracting customers through valuable content. Paid media involves companies paying for advertisements on media platforms, such as sponsored ads (Hanna et al., 2011). Notably, paid media is a cost-effective marketing approach, as expenses are relatively low when evaluated based on conversion to sales (Dinner et al., 2014).

Paid media offers a wide range of advantages. It provides access to international markets and allows companies to reach previously inaccessible customers (Gil et al., 2008). Startups can utilize paid media to build brand awareness and foster engagement with their target audience (Patil et al., 2022). Moreover, it enables the rapid introduction of new products and services to the market (Joshi, 2020). The cost-efficiency of paid media enables companies to market products with minimal investment while achieving notable revenue outcomes (Patil et al., 2022). Small businesses are able to compete more effectively online, benefiting from lower costs and broader reach (Al-Sahlawi et al., 2024).

According to Vieira et al. (2019), selecting the right channel is crucial, especially in B2B markets where companies often target small groups of well-defined customers and focus on building strong relationships. According to the same study, Meta Ads (including Facebook and Instagram), LinkedIn Ads, and Google Ads are considered the most relevant platforms for B2B companies. However, other studies highlight only LinkedIn Ads and Google Ads as truly effective for B2B advertising, explicitly excluding Meta Ads due to their more general audience (Desai & Vidyapeeth, 2019; Ha & Khoa, 2021). This distinction is primarily explained by the advanced targeting capabilities of LinkedIn and Google, which enable advertisers to reach highly specific and relevant audiences (Somosi et al., 2023).

1.1 Research Gap and Purpose

While previous studies emphasize the importance of digital marketing for startups and the need to use time and resources efficiently, there is limited research specifically addressing online marketing strategies for startups in the B2B context (Vieira et al., 2019). Existing literature discusses broader marketing approaches but does not offer practical insights into how startups spend their limited time and resources efficiently. This research focuses to the paid online channels LinkedIn Ads and Google Ads. Within the AIDA model, the first phase (attraction) is central to this research and will be discussed further in the literature review.

This study aims to contribute to the existing literature on B2B startup marketing by exploring the role of paid media in the attraction phase. It provides insights that may guide future digital marketing strategies and offer practical insights that help startups make more effective strategic decisions about paid digital marketing strategy.

1.2 Research Question

This study's research question is: "Which paid digital marketing strategy – LinkedIn Ads or Google Ads – is most suitable for B2B startups to increase brand awareness?"

To answer this question, an experiment was conducted at a startup service company targeting the education sector. The research investigates which paid digital advertising strategy is more effective for increasing brand awareness in a B2B startup context.

1.3 Academic and Practical Relevance

According to Vieira et al. (2019), scientific research on digital marketing in the B2B service context is limited and still in its early stages. This study contributes to the existing literature by focusing on paid digital marketing for B2B startups, within the Attraction phase of the AIDA model. The research addresses a research gap by comparing LinkedIn Ads and Google Ads and offering new insights into the effectiveness of these channels.

From a practical perspective, this research supports B2B startups in allocating their time and resources more efficiently when making strategic decisions about paid digital advertising. By comparing LinkedIn Ads and Google Ads, this study provides insights into which platform is most effective for attracting attention and increasing brand awareness. These findings help startups make more informed decisions and enhance the impact of their marketing efforts, which is especially important given their limited budgets and resources.

1.4 Structure of Research

This research is organized into six sections. First, the relevant literature on digital marketing in the B2B context and the AIDA model is reviewed. Then, the methodology is described, including the experimental design, campaign setup, and measurement of brand awareness. The results of the experiments are presented, followed by discussion and conclusion.

2. Literature review

This section outlines the literature selection process and search strategy, followed by a critical review of the existing literature on the studied phenomenon and the theoretical lens applied in this study.

A systematic search strategy was applied to identify existing literature. Searches were conducted using Scopus and Google Scholar databases, and filters were used to refine the search results. This was done to ensure that the literature was both current and relevant. Only English-language articles were included. Additionally, the selection primarily focused on articles published from 2015 onwards. The retrieved articles were assessed for relevance after performing the searches and applying the filters. The initial selection was based on the titles of the articles, followed by a targeted review through specific keyword searches within the articles themselves (Bramer et al., 2018). The following keywords were used during the full-text screening of each article: Business, B2B, Google, LinkedIn, Ads, Advertising, Advertisement, Startup, Service, Education, Public Procurement, AIDA, Awareness, and Attention. An article did not need to contain all the keywords to be considered relevant. Table 1 provides an overview of the keywords used, the databases, the number of identified and selected articles, and the selected articles. This approach enhances the transparency and reproducibility of the literature selection process.

Table 1. Systematic search strategy

Search term(s)	Database	Articles found	Number of selected articles	Selected articles
"B2B digital marketing strategies"	Scopus	105	3	(Vieira et al., 2019); (Hawaldar et al., 2022)
	Google Scholar	20.700		(Boiko, 2023)
"Paid digital marketing"	Scopus	269	2	(Almestarihi et al., 2024); (Eid et al., 2019);
"Paid digital marketing in B2B startups"	Google Scholar	17.500	3	(Mintz & Lilien, 2024); (Fomicheva, 2015); (Trung, 2024)
"Digital marketing strategy for startups"	Scopus	64	4	(Rizvanović et al., 2023); (Kujur et al., 2023); (Singh & Singh, 2017); (Poddar & Agarwal, 2019)
	Google Scholar	18.100		
"Effectiveness Google Ads"	Scopus	68	2	(Kuzyk, 2023); (Lincy & Bella, 2024)
"B2B advertising"	Scopus	155	3	(Ha & Khoa, 2021); (Swani et al., 2020); (Mora Cortez et al., 2020)
"Social media B2B"	Scopus	38	2	(Dwivedi et al., 2019); (Hayes & Kelliher, 2024)
"LinkedIn Ads for B2B startups"	Google Scholar	8.770	1	(Saeidi & Hollensen, 2024)
"Social media advertising Google and LinkedIn"	Scopus	74	1	(Voorveld et al., 2018)
"Google Ads vs. LinkedIn effectiveness"	Google Scholar	17.900	2	(Desai & Vidyapeeth, 2019); (Bala & Verma, 2018)
"Google Ads Business"	Scopus	82	1	(Kangas et al., 2007)

"LinkedIn Ads Business"	Scopus	13	1	(Lakshmanan & Basariya, 2017)
"B2B service marketing"	Scopus	617	1	(Wirtz & Kowalkowski, 2023)
"Startup education services marketing"	Google Scholar	18.700	1	(John & De Villiers, 2024)
"Digital marketing strategies B2B services"	Google Scholar	23.300	1	(Murti et al., 2023)
"Public procurement education"	Scopus	1,116	2	(Leal Filho et al., 2019); (Guarnieri & Gomes, 2019)
"AIDA model awareness"	Scopus	508	2	(Pashootanizadeh & Khalilian, 2018); (Abdelkader & Rabie, 2019)
"AIDA model effective marketing strategy"	Google Scholar	18.000	1	(Sapian & Vyshnevskaya, 2019)
"AIDA model awareness case study"	Google Scholar	18.300	2	(Ghirvu, 2013); (Pal, 2024)

The effectiveness of digital marketing is a widely discussed topic in the existing literature. Table 2 provides an overview of selected studies focusing on digital marketing in B2B contexts, with an emphasis on the service sector, startups, and paid media. Additionally, the table presents studies examining the platforms LinkedIn and Google. The table outlines the research context, key findings, and limitations of the studies. These themes are further elaborated below.

Table 2. Relevant studies organized by author, research aim, context, findings, and limitations.

Authors and research context	Key variables	Findings	Limitations
Murti et al. (2023) examined the role and effectiveness of digital marketing strategies within business services.	Digital marketing strategy for Business services.	Digital marketing for business service companies can increase customer engagement, brand awareness, and revenue.	Limited to secondary data and does not delve deeper into paid media, platforms, or the B2B context.
Wirtz and Kowalkowski (2023) examined recent streams of service research for B2B marketing.	Service into B2B marketing; Cost-effective service excellence.	Investments in digital marketing can contribute to higher customer satisfaction and loyalty.	Limited to expert interviews and secondary data. The study focused on general digital marketing rather than paid media.
Singh and Singh (2017) explored how startups can use digital marketing to formulate their value proposition.	Digital marketing; Social media marketing.	Digital marketing helps startups build brand awareness and customer relationships.	This study is limited to a questionnaire in India and does not focus on paid media.
Rizvanović et al. (2023) investigated how digital marketing tools can	Digital marketing; startup; B2B	Digital marketing positively affects sales growth for startups in	Limited to secondary, descriptive data. The study lacks in-depth

contribute to the growth of startups.		both B2B and business-to-consumer contexts.	information about different platforms.
Trung (2024) examined the use of digital marketing tools among Vietnamese B2B startups to build customer relationships.	Digital marketing for B2B startups.	Early-stage startups should focus on the attracting phase. The research also highlights that LinkedIn is a primary social media platform for B2B startups.	Limited to interviews in the Vietnamese market. No focus on specific platforms.
Vieira et al. (2019) investigated the effectiveness of four main types of digital media for emerging markets in B2B: paid media, owned media, earned media, and digital inbound marketing.	Digital B2B; Paid media; sales; emerging markets	Paid media had no measurable effect on customer growth.	Limited to a comparison between different marketing channels and not within paid advertisements.
Boiko (2023) researched digital marketing strategies and tactics within the B2B sector, focusing on SEO, paid media, and social media in marketing.	Digital marketing; B2B model; contextual advertising	Paid media effectively attracts customers, generating high-quality leads and visibility of B2B companies.	Limited to secondary data with a focus on general digital marketing strategies.
Poddar and Agarwal (2019) focused on the effectiveness of digital and social media marketing tools for startups, examining the long-term impact through business outcomes.	Digital marketing; social media marketing; Effectiveness	Using digital marketing tools by startups leads to significant growth brand awareness and revenue.	Limited to surveys in the B2C sector. While it addresses the costs of Google Ads, it does not assess their effectiveness. Additionally, LinkedIn Ads are not covered.
Bala and Verma (2018) conducted a critical review of digital marketing, discussing the impact and trends of digital marketing strategies.	Digitalization; Digital Marketing; Marketing trends; Marketing strategies	Search Engine Marketing (SEM) enables businesses to increase visibility and drive website traffic.	Limited to secondary data in the B2C sector, with no focus on effectiveness
Swani et al. (2020) conducted a systematic literature review assessing the current research on B2B advertising.	B2B advertising	LinkedIn significantly contributes to website traffic originating from this platform.	Limited to secondary data with no specific focus on paid advertisements
Saeidi and Hollensen (2024) investigated strategies for effective lead generation on LinkedIn in a B2B context.	LinkedIn; Lead Generation; Digital marketing strategies;	LinkedIn is a powerful platform for B2B high-quality lead generation.	Limited to secondary data with a focus on LinkedIn marketing strategies. No focus on paid advertisements

LinkedIn marketing	or an effective comparison with other platforms
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2.1 Digital Marketing

Several studies have examined the impact of digital marketing on B2B services. Murti et al. (2023) emphasize its importance for maintaining competitiveness and effectively reaching the target audience. Their findings suggest that digital marketing can increase customer engagement, stronger brand awareness, and higher revenue. Wirtz and Kowalkowski (2023) also focus on digital marketing in the B2B service sector. One of the four research themes they discussed was Cost-Effective Service Excellence. They argue that B2B companies should digitalize their marketing and utilize existing platforms to optimize marketing campaigns. According to them, investments in digital marketing can contribute to higher customer satisfaction and loyalty. These findings are supported by Hien and Nhu (2022), who examined how digital marketing influences purchase intention within the B2B sector. Additionally, several studies have been conducted on the effectiveness of digital marketing for B2B startups. Singh and Singh (2017) conclude that digital marketing positively affects startups in building brand awareness and customer relationships, with the added benefit of being more cost-efficient. Trung (2024) confirms that digital marketing positively impacts customer relations, and Rizvanović et al. (2023) conclude that digital marketing also positively affects sales.

Other studies have mainly focused on the effectiveness of paid media for B2B startups. Vieira et al. (2019) investigated the efficacy of four main types of digital media for emerging markets in B2B: paid media, owned media, earned media, and digital inbound marketing. The key findings reveal that for emerging companies, owned media, and digital inbound media significantly impact customer growth. Additionally, earned media was found to enhance this growth. According to the study, paid media had no measurable effect on customer growth. Vieira et al. (2019) attribute this to the fact that other channels often already provide relevant information, diminishing the role of paid media. Similarly, Hawaldar et al. (2022) conclude that paid media has a negative impact on sales performance. This study examined the relationship between investments in digital marketing and the sales performance of B2B startups.

In contrast to Vieira et al. (2019) and Hawaldar et al. (2022), Boiko (2023) argues that paid media is effective in attracting customers. The study concludes that digital marketing is crucial for generating high-quality leads and increasing the visibility of B2B companies. This is supported by Mintz and Lilien (2024), who emphasize that paid media is crucial for B2B companies in their early stages to generate leads. They investigated how marketing strategies contribute to the growth of startups, focusing on differences between early and late stages. Poddar and Agarwal (2019) emphasize that using digital marketing tools by startups leads to significant growth in brand name and revenue. Their research focused on the effectiveness of digital and social media marketing tools for startups, examining the long-term impact through business outcomes. Almestarihi et al. (2024) delve into the critical aspects of measuring the return on investment (ROI) of paid advertising campaigns. The study concludes that the effectiveness of paid advertising depends on multifaceted factors, including the platform used, ad targeting, ad quality, and the campaign's specific goals.

Google and LinkedIn are the most effective platforms for B2B marketing (Desai & Vidyapeeth, 2019; Ha & Khoa, 2021). Google Ads enables companies to display advertisements in the Google Search Engine or third-party websites. According to Bala and Verma (2018), Search Engine Marketing (SEM) is a key strategy within digital marketing. SEM helps increase visibility and website traffic. This is confirmed by research from Lincy and Bella (2024), which concludes that Google Ads is a powerful

tool for reaching a large audience and achieving high click-through rates. Kangas et al. (2007) researched various business models within social media, focusing on the role of Google Ads. They conclude that Google Ads is an effective method for generating revenue. In addition to Google Ads, LinkedIn has also been identified as a primary social media platform for B2B startups (Trung, 2024). Swani et al. (2020) confirms LinkedIn's prominent role in B2B advertising, with significant leads generated through this platform. Saeidi and Hollensen (2024) investigated strategies for effective lead generation on LinkedIn in a B2B context. They concluded that LinkedIn is a powerful platform for B2B lead generation through the strategic combination of profile optimization, valuable content, targeted outreach, active engagement, and paid advertisements. Furthermore, they suggest that LinkedIn is not only effective for generating leads, but also for driving actual conversions. They emphasize that through targeted outreach, personalized communication, and strategic paid advertising, LinkedIn enables businesses to move leads further down the AIDA funnel and convert them into loyal customers.

The above studies provide a clear understanding of the impact of digital marketing. Despite the numerous studies conducted, the lack of field experiments leaves the effectiveness of paid media in B2B-contexts uncertain. This is supported by Dwivedi et al. (2019), who conducted a systematic review of 70 publications on digital marketing in the context of B2B companies, with most studies relying on surveys and online content analysis. However, academic research that applies Web analytics to measure digital marketing performance in the B2B sector remains limited (Pandey et al., 2020). This gap forms the rationale and objective of this study, which focuses on identifying the most effective platform for paid media.

Since this research is conducted at a startup that provides services to schools, it is important to gain some insight into procurement decisions within educational institutions. Leal Filho et al. (2019) researched the drivers and barriers educational institutions face in procurement policies. They indicate that research on procurement in the public sector is scarce, particularly for educational institutions. Educational institutions fall under the public sector and must adhere to strict regulations. Procurement decisions are often based on broader societal goals. Guarnieri and Gomes (2019) studied strategic procurement in the public sector. Procurement within educational institutions focuses on sustainability, social responsibility, and long-term value rather than the lowest costs. As a result, educational institutions seek companies with which they can establish long-term partnerships. In the current literature, there is a lack of research on the role of marketing within educational institutions.

2.2 Theoretical lens

Marketing aims to attract potential customers, capture their interest, and ultimately motivate them to purchase. These steps align with the AIDA model, which stands for Attention, Interest, Desire, and Action. This model outlines the stages involved in the consumer purchasing process, from when a consumer becomes aware of a product to the point of purchase (Pal, 2024). In the attention phase, the focus is on attracting and creating potential customers' attention. Attracting customers' attention involves engaging advertisements, catchy headlines, and notable visuals. The next step is the Interest phase, where companies provide more detailed information, benefits, and value claims. The third phase, Desire, creates a sense of longing for the product. In contrast, the final phase, Action, emphasizes activating the customer to purchase or take another desired action, such as signing up for a service (Pashootanizadeh & Khalilian, 2018).

This research focuses specifically on the first phase of the AIDA model: attention. This phase represents the initial step that startups need to prioritize to create awareness of their product or service. At this stage, potential customers are typically unaware of the product's existence. Therefore, effectively capturing their attention is essential to promote the product and generate initial interest.

Advertising is one of the most valuable tools within this phase, particularly when measuring marketing effectiveness (Ghirvu, 2013). Attention can be captured through various tactics such as advertising, pay-per-click campaigns, and social media (Sapian & Vyshnevskaya, 2019). According to Abdelkader and Rabie (2019), the visual component of an advertisement is the most important, with text as support. Additionally, displaying the advertisements to the right target audience is essential for maximizing effectiveness (Sapian & Vyshnevskaya, 2019).

The attention phase is typically measured by the number of people exposed to the advertisement (Abdelkader & Rabie, 2019). In an online environment, customers' attention can be captured more accurately, as clicking on an advertisement link provides a direct measure of engagement. In contrast, with television commercials, verifying whether attention has been successfully captured is impossible. In online environments, traffic to a product page can serve as an indicator that attention has been captured. Once a potential customer clicks to learn more about a product, the attention phase transitions into the Interest phase (Baber, 2022).

Based on the insights discussed above, Figure 1 presents a visual representation designed to outline a structured approach to the attention phase of the AIDA model. This diagram translates the key concepts into a systematic method for effectively capturing the attention of potential customers. The figure highlights four critical components: using strong visual content, selecting the right target audience, executing the campaign, and measuring effectiveness.

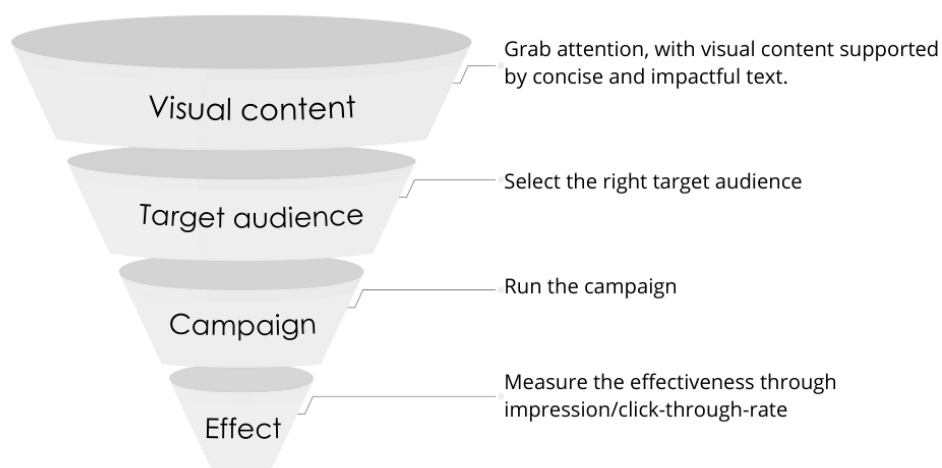


Figure 1. Systematic approach to the attention phase.

3. Methodology

This section presents the research design, which adheres to the steps previously outlined in Figure 1: Visual Content, Target Audience, and Campaign.

3.1 Research design

To answer the research question, this study employed an experimental research design based on A/B testing. An A/B test is an experiment conducted in a live environment where two variants are compared by evaluating their performance (Quin et al., 2024). An experiment provides quantitative data (Grewal et al., 2014), allowing the effect of a variable to be measured in a real-world context (Motz et al., 2018). Previous studies have successfully applied A/B testing to evaluate the effectiveness of online sales channels (Mandic et al., 2023), advertisement creative components (Nichifor et al., 2021), and advertising platform performance (Singh et al., 2023). These studies demonstrated that A/B testing is a reliable method to detect differences in marketing effectiveness, making it a suitable approach for this research.

In this study, an A/B test was conducted to compare the effectiveness of LinkedIn Ads and Google Ads in increasing brand awareness for a B2B startup. The same advertisement image was used on both platforms, promoting the same service offering to a comparable target audience. The study was carried out for a company that provides services to schools. This research specifically focused on one service offered by the company: organizing school trips for high schools.

3.1.1 Visual Content

Attracting the attention of potential customers is a crucial but challenging task. In the online environment, multiple advertisements compete for buyers' attention, aiming to generate clicks. Several factors influence the likelihood of a click-through (Baber, 2022).

Montazeribarforoushi et al. (2017) examined how neurobiological insights can be used to evaluate the AIDA model, focusing on consumer behavior's cognitive and emotional processes. In the attention phase, factors such as color, orientation, size, shape, movement, faces, text, and novelty are the primary drivers of attention generation. Additionally, positive emotions such as trust and joy facilitate consumer attention. Mattke (2019) supplements these findings by dividing click behavior into structural and semantic factors. Users' click behavior is influenced by animation, color brightness, prominence of location, and size. Advertisements must also offer entertainment value, informativeness, or utility. Ghirvu (2013) emphasizes that strong visual imagery combined with large headlines, color, and white space has proven effective. According to Abdelkader and Rabie (2019), the visual aspect is even more important, with text as a supporting element. Goldfarb and Tucker (2011) add that alongside visual prominence, the textual content of advertisements plays a crucial role. The text should be concise, yet the product or service must be communicated along with the brand name (Baber, 2022).

Based on the existing literature, Table 3 summarizes the key elements of an effective advertisement in the attention phase.

Table 3. Key elements for visual content

Element	Specification	Reference
Visual prominence	Use of color	(Ghirvu, 2013; Montazeribarforoushi et al., 2017)
	Size	(Ghirvu, 2013; Mattke, 2019)

	Potentially striking visual elements such as faces	(Montazeribarforoushi et al., 2017)
Clear message	Company name	(Baber, 2022)
	Short text communicating what the service is	(Abdelkader & Rabie, 2019; Baber, 2022)
Space	Use of white space to emphasize visual elements and create a clean, clear layout	(Ghirvu, 2013)
Relevance	Advertisements should inform, entertain, or be useful	(Mattke, 2019)

The visual content was designed by the company's marketing team, considering these factors, the company's branding, and the characteristics of the target audience. The advertisement image is shown in Figure 2. The band name in the top left corner has been blacked out for reasons of confidentiality.



Figure 2. Advertisement image

3.1.2 Target Audience

The advertisement must align with the target audience (Montazeribarforoushi et al., 2017). Research by Goldfarb and Tucker (2011) shows that contextually targeted advertisements are more effective than highly visible advertisements. Displaying advertisements to the right target audience is crucial (Sapian & Vyshnevskaya, 2019). To specify targeting, the advertiser has options within several categories (Liu et al., 2016).

LinkedIn Ads and Google Ads offered various categories to target the right audience. The selection of categories and options was carefully considered. For instance, on LinkedIn, the advertisements specifically targeted people working in primary and secondary education, excluding those with a general interest in education. This approach ensured that students, parents of students, and other interested parties were excluded, allowing the ads to reach only individuals working in education.

One drawback of the available targeting categories was that they were predefined on both platforms. For example, the category "Primary and Secondary School" was combined, while the advertisement specifically targeted secondary education. As a result, the ad may also have been shown to users in

primary education to some extent. However, since the same categories were used on both platforms, this ensures consistency and offsets the effect, making the results comparable.

LinkedIn Ads

Table 4 shows the selected categories for targeting. The company exclusively offers trips for Dutch secondary schools. Therefore, the location and profile language were set to Dutch. The targeting also includes individuals working in the primary and secondary education sectors. An option was selected to allow LinkedIn to expand its audience to individuals with similar profiles (LinkedIn, 2024).

Table 4. Selected Target Items LinkedIn Ads Campaign

Categories	Selected items
Location	Netherlands
Profile Language	Dutch
Company Industries	Education: Primary and Secondary School
Gender	Male; Female
Age	From 25 years old
	Audience Expansion: Reach people similar to the target audience based on attributes such as job titles, companies, or skills.

Google Ads

For Google Ads, the location and language were also set to Dutch. The In-market audience was set to primary and secondary education, targeting individuals actively researching or planning in this area. The age range was set from 25 to 64 years, which is generally considered the working age. Additionally, keywords such as "werkweek" (workweek), "schoolreis" (school trip), and "studiereis" (study trip) were selected. When selecting keywords, care was taken not to make them too broad. This approach prevented the ads from reaching irrelevant audiences. For example, adding general terms like "education" could have attracted less relevant audiences, such as students or parents, instead of the intended professionals in secondary education. Optimized targeting was also enabled, ensuring the ad was shown to people slightly outside the selected audience but still highly likely to fall within the target group (Google, 2024). The selected items are shown in Table 5.

Table 5. Selected Target Items Google Ads Campaign

Categories	Selected items
Locations	Netherlands
Languages	Dutch
In-market (actively researching or planning)	Education: Primary and Secondary School
Gender	Male; Female; Unknown
Age	24-64 years
Keywords	"Werkweek" (workweek), "Schoolreis" (school trip), "Studiereis" (study trip)
	Optimized targeting: Reach people who are likely to convert.

3.1.3 Campaign

During the execution of the campaign, data will be collected. The experiment was conducted in March. One advertisement was placed via LinkedIn Ads and one via Google Ads. Both advertisements were run for 7 days. Initially, the intention was to run both campaigns simultaneously to minimize the

impact of external factors (Nichifor et al., 2021). However, due to practical constraints, the LinkedIn and Google Ads campaigns were launched one week apart. Both campaigns were scheduled on the same weekdays and at the same times to minimize variations in audience behavior and external factors. No significant contextual changes were observed between the two campaign periods. Although simultaneous testing is generally preferred in A/B testing, research by Theodorakioglou et al. (2023) shows that sequential exposure can still lead to effective advertising outcomes, such as message processing. Therefore, this sequential setup is considered acceptable for comparing the two platforms under stable conditions. To ensure a fair comparison between the two platforms, both advertisements were designed with comparable content and targeting criteria, and a budget of €140 was allocated to each. Throughout the duration of the experiment, data on the CTR were collected using Google Analytics. Table 6 outlines the additional settings for the advertisements on each platform.

Table 6. Additional selected items on LinkedIn Ads and Google Ads

	LinkedIn Ads	Google Ads
Objective	Website visits	Website visits
Ad format	Single image	Single image
Placement	LinkedIn; LinkedIn Audience Network (external publishers)	Display (across 3 million sites)
Daily budget	€20 per day x 7 days	€20 per day x 7 days
Planning	10/03/2025 - 16/03/2025	17/03/2025 - 23/03/2025

3.2 Method

For the data analysis, Google Analytics tracked various data about the website, such as how potential customers arrived at the website, including through paid media (Rizvanović et al., 2023). The effectiveness of the advertisements was measured by the number of people who clicked on the advertisement link to visit the product page (Baber, 2022). The data analysis focused on evaluating four key performance indicators (KPIs):

- Impressions: The number of times the advertisement was displayed to users.
- Clicks: The number of times the advertisement was clicked.
- Click-Through Rate (CTR): The number of clicks divided by the number of impressions.
- Cost Per Click (CPC): The average cost for each click generated.

These indicators were selected to assess the attention-grabbing effectiveness of the advertisements and to compare the performance between LinkedIn Ads and Google Ads based on user engagement.

To determine whether the observed differences in advertisement performance between the two platforms were statistically significant, an independent samples t-test was initially planned. This test would compare the CTR results of LinkedIn Ads and Google Ads using the following hypotheses:

- H_0 : There is no significant difference in CTR between LinkedIn Ads and Google Ads.
- H_1 : There is a significant difference in CTR between LinkedIn Ads and Google Ads.

If the sample size were too small to conduct a valid t-test, a descriptive analysis would be conducted instead. In that case, the comparison between platforms would rely on impressions, clicks, CTR, and CPC to draw practical insights into their relative effectiveness, without formal significance testing.

4. Results

This section presents the results of the paid advertisements on LinkedIn Ads and Google Ads. Both campaigns were executed over seven consecutive days with an equal daily budget of approximately €20 per platform. The sample aligns with the target audience as a result of the predefined targeting settings applied in both campaigns. The performance indicators were tracked using Google Analytics. First, the daily performance per platform is presented, followed by comparing the total performance based on impressions, clicks, CTR, and CPC.

Although hypotheses were formulated in section 3.2 to allow for statistical comparison, the existing literature did not provide a clear expectation as to which platform would perform better. Initially, an independent samples t-test was planned to determine whether the difference in CTR between LinkedIn Ads and Google Ads was statistically significant. However, due to the low number of clicks on LinkedIn Ads, the sample size was too small to conduct a valid significance test. Therefore, no statistical test was performed. Instead, descriptive analysis is appropriate in such cases, as small samples can still yield valuable insights into observed patterns (Sedlmeier & Gigerenzer, 2000).

Table 7 shows the daily performance of the LinkedIn advertisements, including impressions, clicks, CTR, daily spend, and CPC. CPC could not be calculated on days with zero clicks and is therefore not shown.

Table 7. Daily performance of LinkedIn advertisement

Date	Impressions	Clicks	CTR	Daily Spend	CPC
10 March	2.031	6	0,3%	€23,13	€3,86
11 March	135	0	0,0%	€30	-
12 March	781	6	0,8%	€20,98	€3,50
13 March	424	0	0,0%	€21,02	-
14 March	291	1	0,3%	€17,46	€17,46
15 March	165	1	0,6%	€15,39	€15,39
16 March	419	3	0,7%	€12,02	€4,01

Table 8 displays the daily impressions, clicks, daily spend, and calculated CPC for the Google Ads campaign.

Table 8. Daily performance of Google advertisement

Date	Impressions	Clicks	CTR	Daily Spend	CPC
17 March	5.106	139	2,7%	€14,65	€0,11
18 March	13.732	147	1,1%	€27,16	€0,18
19 March	11.170	228	2,0%	€20,27	€0,09
20 March	31.300	367	1,2%	€20,16	€0,05
21 March	16.660	348	2,1%	€20,19	€0,06
22 March	12.928	112	0,9%	€20,20	€0,18
23 March	3.381	78	2,3%	€17,37	€0,22

Table 9 provides an overview of the total results per platform.

Table 9. Total results per platform

Platform	Impressions	Clicks	CTR	Total Spend	CPC
LinkedIn Ads	4.246	16	0,38%	€140	€8,75
Google Ads	94.277	1.419	1,51%	€140	€0,10

Based on these results, a comparison was made using CTR and CPC. Google Ads achieved 94.277 impressions and 1.419 clicks, resulting in a CTR of 1,51%. The average cost per click was €0,10. LinkedIn Ads reached 4.246 impressions and only 16 clicks, resulting in a CTR of 0,38%. The average cost per click was €8,75. Although prior literature does not indicate which platform is more effective in raising awareness, the results of this study show that Google Ads was more effective than LinkedIn Ads in terms of reach and cost-effectiveness.

5. Discussion and Conclusion

The present research investigates which paid digital marketing strategy – LinkedIn Ads or Google Ads – is most suitable for increasing brand awareness among B2B startups. The findings show that LinkedIn Ads performed less effectively than Google Ads in terms of both reach and cost efficiency. LinkedIn Ads achieved only 16 clicks with a click-through rate (CTR) of 0,38% and an average cost per click (CPC) of €8,75. In contrast, Google Ads generated 1.419 clicks with a CTR of 1,5% and a lower CPC of €0,10. This difference is substantial: a click via LinkedIn Ads was approximately 8.650% more expensive than a click via Google Ads.

The strong performance of Google Ads may be explained by the active search behavior of its users, who are purposefully seeking information. This results in higher engagement and aligns with earlier findings suggesting that search engine advertising generally performs well in generating leads (Lincy & Bella, 2024). In contrast, LinkedIn Ads are primarily shown to users who are not actively searching but fall within the potential target audience (Saeidi & Hollensen, 2024). As a result, it is more difficult to immediately capture their attention, which may explain the lower click performance. However, this does not mean that LinkedIn Ads have no effect, as the advertisement may still contribute to brand recognition or future consideration (Goldstein et al., 2011).

The findings also suggest that LinkedIn is less suitable for startups with limited marketing budgets that aim to generate brand awareness, due to the significantly higher cost per click (8.650%). This supports earlier literature warning against overinvestment in expensive B2B channels without sufficient ROI analysis (Almestarihi et al., 2024).

This conclusion should be interpreted with caution. Although LinkedIn underperformed in generating initial attention, existing literature suggests that the platform may be valuable in later stages of the customer journey, such as lead nurturing and conversion. Due to its advanced targeting capabilities, LinkedIn offers opportunities for building trust and long-term customer relationships (Saeidi & Hollensen, 2024).

Based on the results, Google Ads appears to be more suitable for generating attention in the early phase of the customer journey. LinkedIn, on the other hand, may offer more value in later stages of the AIDA model, as suggested by previous research.

5.1 Theoretical Contribution

This study contributes to the existing literature on digital marketing in the B2B context by applying an experimental research design, which has been applied only to a limited extent in previous research (Dwivedi et al., 2019; Pandey et al., 2020). Rather than relying on surveys and descriptive analyses, this research provides quantitative insights based on a field experiment. In doing so, it addresses the need for more practice-oriented and data-driven research in this field.

In this study, the AIDA model is not only used as a theoretical framework but is also applied in practice. By measuring click-through rates and cost per click for two advertising platforms, the study demonstrates how the attention phase of the AIDA model can be measured and applied within a digital B2B marketing context.

Finally, the comparison between LinkedIn Ads and Google Ads offers a valuable contribution to the ongoing discussion about channel selection in B2B marketing. The performance differences between the two platforms highlight that general assumptions about the effectiveness of paid media are insufficient; contextual factors such as platform type and marketing objectives play a crucial role.

5.2 Practical Implications

The results of this study provide valuable insights for B2B startups looking to invest in paid digital marketing. Startups with limited time and budgets must allocate their resources effectively as this increases awareness of their products or services (Kusumawati et al., 2019). Startups should initially focus on generating attention (Pal, 2024), as this enhances visibility and fosters initial trust. Such trust is considered a foundation for establishing long-term customer relationships (Pashootanizadeh & Khalilian, 2018).

This study shows that Google Ads generate more reach and lower cost per click than LinkedIn Ads during the attention stage of the AIDA model. This makes Google Ads a more suitable choice for startups aiming to increase brand awareness both effectively and cost-efficiently. This can be achieved by selecting specific keywords aligned with the target audience. Startups should design visually appealing advertisements that attract the right audience. This includes the use of bold colors, clear and concise messaging, and consistently displaying the company name for brand recognition.

The findings indicate that LinkedIn Ads are relatively expensive in this phase and achieve limited impact in terms of clicks and reach. However, the platform may still be relevant in later stages of the marketing process, such as in generating conversions (Saeidi & Hollensen, 2024). In these later stages, potential customers tend to engage more actively with the product or service. LinkedIn's audience targeting capabilities can facilitate trust-building and support conversion. If implemented too early, the platform may generate high costs without meaningful engagement, which underlines the importance of timing.

Based on these findings, it is recommended that B2B startups use Google Ads in the initial stage of the customer journey when the goal is to build brand awareness at low cost. The use of LinkedIn Ads in this early phase is not advisable for companies with limited budgets due to the high cost per click and limited reach. Since LinkedIn may perform better in later stages, it is advisable to align channel selection with the specific stage within the marketing funnel. This alignment can be achieved by defining campaign objectives for each stage and matching them with the strengths of each platform. Google Ads may be employed to attract attention through keywords, whereas LinkedIn may be more suitable for driving conversions or fostering customer loyalty. This strategy can be tested through small-scale experiments, which allow continuous evaluation of which platform is most effective for the intended audience and objective. This approach can help startups avoid misallocation of resources and may increase conversions.

5.3 Limitations and Future Research

Despite the insights this study provides into the effectiveness of Google Ads and LinkedIn Ads, it has several limitations that offer directions for future research.

First, the campaigns were conducted only once over a period of seven days. As a result, time-related factors such as seasonal influences or specific events within the education sector may have affected the outcomes (Liang & Lin, 2023). In addition, the campaigns were not run simultaneously, but sequentially. Although this could introduce minor timing effects, previous research indicates that sequential execution does not necessarily compromise the validity of advertising effectiveness measurements (Theodorakioglou et al., 2023).

Second, due to the low number of clicks on LinkedIn, it was not possible to conduct a statistical significance test (Hackshaw, 2008). The analysis therefore relied on descriptive comparisons, which, according to Sedlmeier and Gigerenzer (2000), may have limited generalizability but can still provide

valuable insights. Future research is recommended to replicate this experiment over a longer period and with a larger sample size, to improve the reliability of the findings.

Third, this study tested only one advertisement per platform, using the same visual design. However, LinkedIn users may respond differently to specific types of content than Google users. The observed performance differences may therefore partly reflect audience preferences, rather than the inherent effectiveness of the advertising channels themselves. Despite the use of a standardized design, differences in ad appeal between platforms cannot be entirely ruled out (Greener, 2018). Future research could explore the effectiveness of various ad formats, such as video, carousel, or text-based ads.

Furthermore, this study focused exclusively on the first stage of the AIDA model: attention. Previous literature suggests that LinkedIn may be more effective in later stages of the customer journey (Saeidi & Hollensen, 2024). Future studies could explore the subsequent phases (interest, desire, and action) to determine which platform performs more effectively in guiding customers through the full marketing funnel.

Finally, the findings are based on a specific case: a B2B startup targeting the education sector in the Netherlands. This limits the generalizability of the results. Future research conducted in other sectors, countries, or with different target groups would be valuable in determining whether the findings apply more broadly (Peck, 2020).

5.4 Conclusion

This study investigated which paid digital marketing channel—LinkedIn Ads or Google Ads—is most effective in increasing brand awareness for B2B startups. The results show that Google Ads is significantly more effective than LinkedIn Ads, both in terms of reach and cost per click. This suggests that Google Ads is a suitable choice for startups aiming to raise brand awareness with limited resources. At the same time, the findings do not justify fully excluding LinkedIn, as previous literature indicates that the platform may be more effective in later stages of the customer journey. The study contributes to practice by offering concrete recommendations for channel selection, and to theory by applying empirical research within a B2B context. Further research is needed to explore the effectiveness of digital channels across the entire marketing funnel.

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