

# MARKETING ACTIVITIES OF IT COMPANIES: INFORMATION AND ORGANISATIONAL CAPABILITIES FOR DIGITAL PRODUCT DEVELOPMENT

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**Abstract.** The *purpose* of this article is to provide a comprehensive examination of the informational and organisational capabilities of marketing activities in the market for digital products and services. It highlights the importance of data analysis, web analytics and technology partnerships for success in the digital marketplace. It also examines modern organisational strategies to help IT companies effectively implement marketing initiatives and adapt quickly to changing business landscapes. *Methodology.* This article is based on a theoretical and methodological review of the existing scientific literature on digital technologies, the marketing of digital products and services, and an overview of current technological and organisational solutions in the digital field. In addition, it includes a survey of marketing managers from renowned IT companies with the aim of delineating the typology of organisational structures within marketing departments. *Results.* Information delivery, data analytics, monitoring tools and web analytics are critical to digital marketing in IT organisations, facilitating the collection and analysis of data from multiple sources such as websites, social media and CRM systems. By leveraging big data and machine learning algorithms, it is possible to identify complex dependencies and predict consumer behaviour. Technological partnerships and collaborations with startups are becoming increasingly important for IT companies' marketing efforts, providing access to fresh ideas, technologies and a competitive edge. Organisational structures in the marketing departments of IT companies emphasise agility and cross-functional teamwork, often using agile methodologies. This promotes adaptability to market changes. Marketing structures typically include inbound approaches, flexible growth-oriented setups, and streamlined hierarchies. *Practical implications.* These marketing tools and organisational methods are recommended for implementation in the marketing departments of IT companies. The correlation between informational and organisational capabilities contributes to the achievement of marketing goals and the competitive advantage of IT companies in the marketplace. Scrum and Kanban, widely used agile frameworks, are not limited to technology companies but are also common in financial services and retail. *Value / Originality.* In the context of the ongoing military conflict, successful operation of Ukrainian IT companies in the modern world requires not only technological superiority, but also effective marketing and a well-organised internal structure. To accelerate the recovery of the Ukrainian IT sector and improve existing practices, the following recommendations have been made.

**Key words:** digital marketing, marketing of digital products, marketing of IT companies, information opportunities for marketing, organisational opportunities for marketing.

**JEL Classification:** M31

## 1. Introduction

In today's world, information technologies play a crucial role in business development and in shaping marketing strategies. Successful marketing of digital products requires not only creativity and innovation, but also

a deep understanding of technology and a comprehensive approach to its use.

In connection with the military actions on the front, an active process of economic recovery is expected in the future, especially in the Ukrainian IT sector. The country's digitalisation and the

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support of foreign partners through financial programmes reflect hopes for significant development and future investment.

This article examines the role of information and organisational support in the marketing activities of IT companies. It highlights the importance of data analysis, web analytics and technology partnerships in achieving success in the digital marketplace. It also analyses modern organisational approaches and strategies that help IT companies to implement marketing initiatives effectively and to adapt quickly to changes in the business environment.

The use of information delivery, data analysis and web analytics tools is critical to digital marketing in the IT sector. These tools facilitate the collection and processing of information from various sources, including websites, social networks and CRM systems. The use of big data and machine learning algorithms makes it possible to identify complex interdependencies and predict consumer behaviour.

Organisational support for marketing in IT companies involves establishing efficient structures and processes based on agile methodology and cross-functional teams. This ensures flexibility and responsiveness to changing market conditions. Marketing department structures often follow an inbound approach, with flexible and adaptive organisational structures and flat hierarchies with no layers of management.

Thus, the successful operation of Ukrainian IT companies in the modern world requires not only technological superiority, but also effective marketing and a well-organised internal structure.

## **2. Information Capabilities of Marketing Activities**

Economic information plays a crucial role in improving the efficiency of IT companies by enabling them to set strategic goals and exploit emerging opportunities. In addition, economic information serves as a basis for making timely and well-founded managerial decisions and coordinating the actions of various departments to achieve set goals (Ponomarenko et al., 2008).

In today's data-driven world, access to valuable insights is crucial. Modern IT technologies enable companies to collect, analyse and interpret vast amounts of data about customers,

markets and competitors. This helps to understand customer preferences and adapt marketing strategies.

Data collection methods in digital marketing include various tools and platforms for collecting and analysing qualitative and quantitative data, such as web analytics, social media, CRM systems and monitoring tools.

Web analytics, such as Google Analytics, allows the measurement of traffic, user behaviour and website effectiveness. Marketers can gain insight into user interactions and identify areas for website improvement.

Social media platforms such as Facebook, Instagram, YouTube, TikTok, Twitter and LinkedIn offer opportunities to gather data about audiences, their interests, behaviours and brand perceptions. Marketers can analyse reactions to posts, comments, likes and shares to understand what content and strategies are engaging audiences. It's also a primary means of gathering feedback on products.

Customer relationship management (CRM) systems enable the collection and analysis of customer data, including contact details, purchases, brand interactions and more. This helps marketers understand their target audience, personalise communications and offers, and track campaign effectiveness.

Monitoring tools such as Brandwatch, Mention, Hootsuite etc. allow monitoring of mentions of brands, products or competitors in social media, news, blogs and other sources. This enables marketers to understand audience sentiment, identify emerging trends, gauge response to marketing campaigns and respond to customer needs.

Gathering qualitative and quantitative data about the target audience, user behaviour, campaign performance, and conversions is crucial to digital marketing for several reasons:

- Understanding the target audience. The collected data helps to understand the demographic characteristics, interests and needs of the audience. This allows to create personalised and targeted marketing strategies.
- Performance measurement. Reliable information makes it possible to determine the success of marketing campaigns, identify the most effective communication channels and methods, and adjust the strategy to achieve better results.

– Identifying trends and opportunities. Collecting analytical data allows to identify new trends, changes in audience behaviour and market opportunities. This enables companies to respond to changes faster and more effectively.

– Conversion optimisation. Web analytics tracks user behaviour, allowing to understand where potential customers may be lost, how to improve websites, landing pages and other marketing components to increase conversions and improve the user experience.

The formation of an open socio-economic system "customer – company – partner" (Yastremska & Raiko, 2011) not only leads to noticeable synergy effects in the interaction of system elements, but also complicates the requirements for the further development of the company's marketing activities.

Implementing the synergy concept of the "customer – company – partner" system means moving towards the principles of predictive management in corporate marketing activities: from reactive responses to inevitable circumstances to global strategic planning and anticipatory strategies. This is only possible through integrated marketing communications, which requires a new, comprehensive approach to internal relationships between team members and external relationships between the company, customers and partners.

Technology partnerships and start-up collaborations are critical to the marketing efforts of IT companies. Partnering with startups brings in fresh ideas, technologies and solutions, thereby fostering innovation.

These partnerships allow IT companies to work with organisations that have unique technological expertise, fostering joint research, resource sharing and marketing activities. This accelerates innovation and attracts new customers. Startups benefit from access to funding, expertise and marketing tools, fostering an innovative ecosystem that supports mutual growth.

When implementing communication strategies, IT companies are using big data from various sources such as websites, social networks and mobile apps for consumer segmentation.

Big data refers to a large amount of diverse information that is being generated in increasing amounts and at an increasing rate. This includes the volume of information, the speed at

which it is created and collected, and the variety or volume of data points covered (Segal, 2024).

Collecting and analysing large amounts of data enables a deeper understanding of consumers and their needs. Machine learning algorithms can reveal hidden dependencies and patterns that help predict consumer behaviour, preferences and needs. This allows companies to run personalised marketing campaigns, provide tailored offers and increase customer engagement.

Machine learning is a branch of artificial intelligence and computer science that focuses on using data and algorithms to mimic the way humans learn, gradually improving its accuracy (IBM).

Machine learning helps predict marketing effectiveness and efficiently allocate advertising budgets by analysing rich data on promotional campaigns and customer acquisition channels. In summary, integrating big data and machine learning into IT company marketing offers opportunities to improve strategies and communications, foster a deeper understanding of consumers, and enable personalised communication, which is essential to compete in today's market.

CRM systems are vital to supporting a company's marketing efforts by organising customer data, facilitating interaction and developing relationships. Analytical CRM tools help to manage sales, increase customer loyalty and improve communication.

Among those used by IT companies are the following:

– Salesforce. The CRM system with the largest market share, including contact management (from proposal to payment), powerful analytics (Einstein Analytics), in-depth lead management, advanced marketing capabilities across all available channels, sales forecasting and state-of-the-art security (Salesforce).

– Microsoft Dynamics CRM. One of the leading CRM systems, with only 3-4% less market share than Salesforce. Its key advantage is its Business Intelligence (BI) capability, designed for visual analysis of sales, marketing and finance data in one place, using cloud data integration and Cortana artificial intelligence (Microsoft).

– Creatio. A Ukrainian CRM that enables the automation of industry and internal processes using no-code technologies. The platform combines the functionality of customer relation-

ship management and business process management systems.

- Zoho CRM. Contact and lead management, advanced sales process builder, forecasting and analysis, marketing automation tools (Zoho).

- HubSpot CRM. A free cloud-based platform that automates sales funnels, manages leads/contacts, and automates marketing in real time (HubSpot).

Artificial intelligence (AI) is being embedded into enterprise CRM systems to deliver a range of benefits: process automation, advanced analytics with predictive capabilities, personalised offers and communications to customers, accelerated customer service and sales forecasting.

### 3. Organisational Capabilities of Marketing Activities

Organising marketing activities in IT companies requires the creation of effective structures and processes. Unhindered internal communication between marketing, product development, sales and customer service departments is essential to achieving common goals.

The HubSpot inbound marketing platform (Acunzo, 2017) has compiled a range of organisational marketing structures from large American digital companies, including software manufacturers such as Atlassian, ZenDesk, GitHub, online shopping service Rue La La, and others.

It was found that each company has its own marketing team structure, focusing on factors such as:

- Flexibility to ensure rapid growth;
- large content marketing teams;
- inbound marketing with large demand generation teams focused on personas and content;
- sales funnel, with separate PR and field marketing teams, and a special focus on the end of the funnel – customer retention;
- team culture with a very flat hierarchy;
- creativity, with a strong emphasis on content, design, and merchandising.

Darren Woolley of TrinityP3 notes that technology companies typically prioritise customer acquisition, but there's no one-size-fits-all marketing structure. Flexible departmental models are becoming more common, especially among new companies that find it easier to adapt their structure.

Ryan Bonnici, Senior Director of Global Marketing at HubSpot, emphasises the importance of customer retention for digital companies. He suggests leveraging inbound marketing approaches for this purpose. The role of the CMO (Chief Marketing Officer) has grown in influence within company structures, given that social networks now serve as more than just brand blogs – they also drive business growth (Byass).

Below are graphical structures of the marketing departments of the listed IT companies (Figures 1-3).

The Elastic Org structure makes it easy to add new marketing areas and employees as the company's product range evolves.

Many areas of marketing are overseen by product marketing managers. They collaborate with subject matter experts in other teams. Marketing operations specialists oversee the complexity of the marketing technology stack, IT integration, hypothesis testing, and optimisation of the customer experience within the product.

The Inbound Org structure emphasises inbound marketing approaches. Its main objective is to increase product value through content and contextual marketing, such as dynamic web pages tailored to potential customer relationships. This structure prioritises a deep understanding of buyer personas and separates content direction to serve internal customers such as sales enablement, PR and customer retention.

The term "growth hacking" was coined in 2010 by Sean Ellis, an entrepreneur who helped Dropbox achieve business growth. Trying to find a replacement, he invented a new position that was different from the role of a marketer.

The term "growth hacking" is used to describe a set of innovative, creative and usually low-cost strategies that companies use to grow their customer base. The competencies of a growth hacker include analytical thinking, using a small budget, experimentation, hypothesis building, helping developers create a successful product, focusing on the AAARRR sales funnel (awareness, acquisition, activation, retention, referrals, revenue), and using all communication channels (Snov.io).

In the Culture Org, roles are streamlined, with an emphasis on team culture across all functions. Marketing efforts are aimed at infusing this culture into product development,

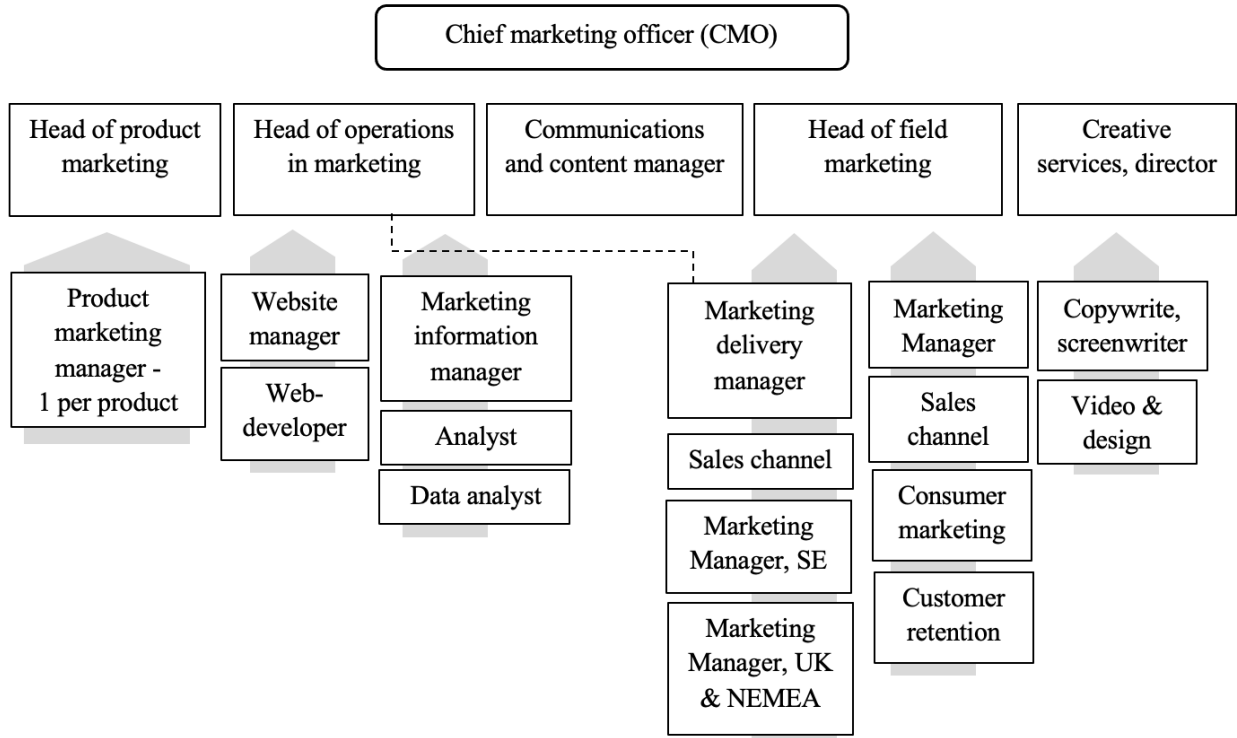


Figure 1. The Elastic Org structure of the Marketing Department at Mindjet

Source: (HubSpot, 2017)

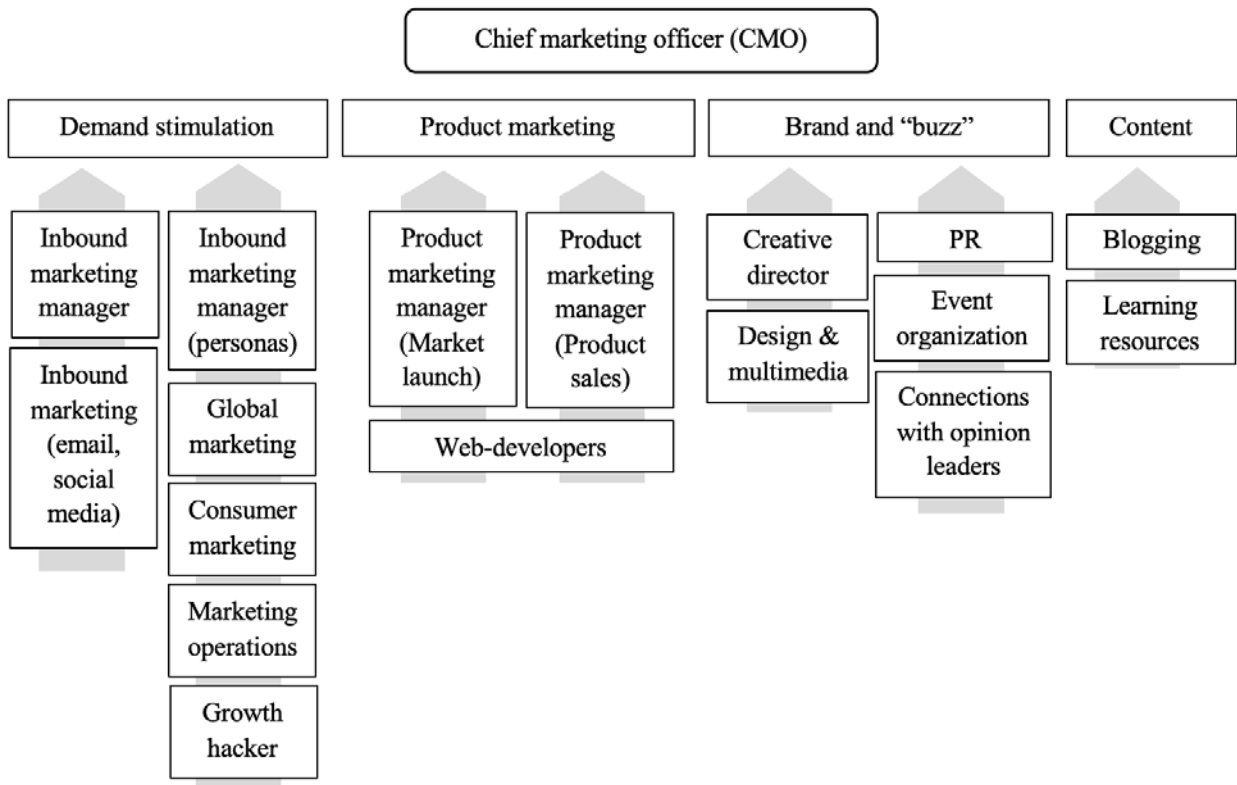
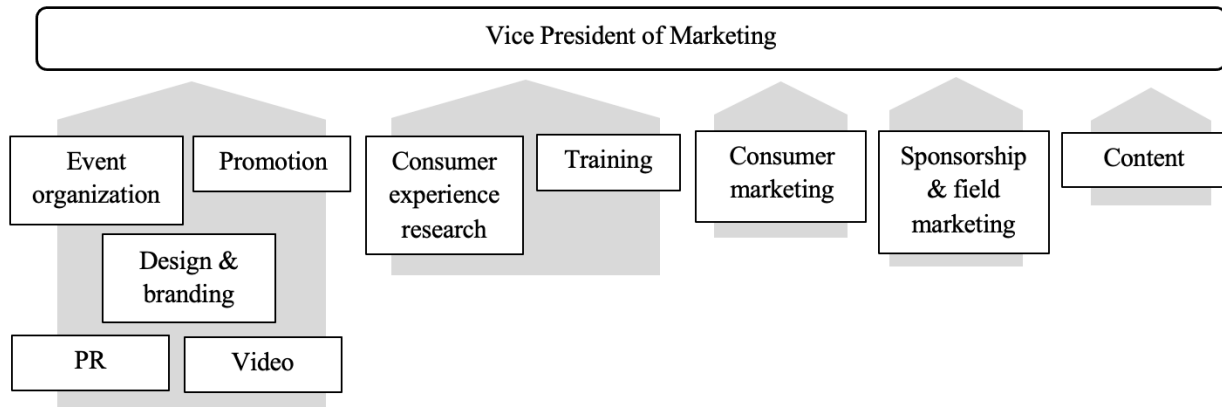


Figure 2. The Inbound Org structure of the Marketing Department in HubSpot

Source: (HubSpot, 2017)



**Figure 3. The Culture Org of the Marketing Department at GitHub**

Source: (HubSpot, 2017)

promotional materials and internal interactions. Each employee is expected to be a brand advocate, representing the company at events, on social media and in face-to-face interactions with users.

Marketing now relies heavily on technology, and marketing teams are increasingly collaborating with technology teams. This integration has led to the adoption of agile principles from software development into marketing practices (Cprime).

Agile methodologies emphasise iterative processes and collaboration between cross-functional teams, resulting in faster time to value, higher quality and better adaptability to change. Scrum and Kanban are common agile frameworks used in technology companies, financial services and retail. This trend towards flexibility and faster adaptation has given rise to the concept of flexible marketing.

Flexible marketing is an approach in which marketing teams work in short cycles to implement clearly defined projects and measure their impact, with the aim of continuously improving results over time.

Through small, cross-functional teams, flexible marketing is also influencing the structure of marketing departments, leading to the emergence of roles such as the growth hacker. This underlines the importance of testing new methods and training staff.

In companies that implement agile marketing, the structure of the marketing department evolves. Functional teams may merge into broader "tribes" under the leadership of a single manager, such as a loyalty marketing

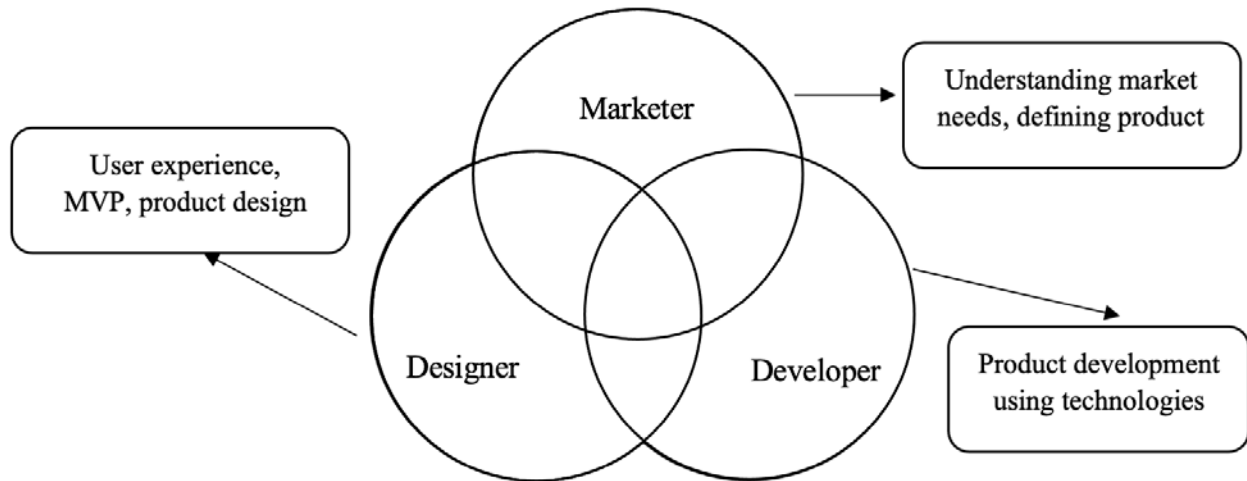
department. Core principles, such as brand guidelines, are set by the company's leadership and applied across different "tribes" within larger "guilds".

In such teams, both the organisational structure and the approach to marketing activities change. The frequency of activities can increase, moving from quarterly to monthly or bi-weekly cycles, which corresponds to the two-week sprints of the agile methodology. Sprints are fixed periods, usually lasting one to two weeks, during which specific tasks are completed and analysed (Brunskill, 2019). Creating cross-functional teams is an agile approach aimed at strengthening organisational support within the company structure.

A cross-functional team is made up of professionals from different disciplines who work seamlessly together towards a common project goal. They participate in all phases of the project together, facilitating active communication, idea sharing, and joint decision-making (Telegraph). The cross-functional team uses the concept of a "product triad" (see Figure 4), where each side of the triad represents a different interest in the product they are working on.

In this scenario, the marketer focuses on business metrics, the designer on user experience, and the programmer on development. They work closely together to develop solutions that meet business, user and technical requirements. This collaboration ensures efficient use of resources by avoiding costly or technically infeasible options.

The informational and organisational support of marketing activities in IT companies is



**Figure 4. Product Triad within an IT Company**

Source: made by the author

therefore a critical success factor in a competitive environment. The use of modern information technologies and CRM systems enables the collection and analysis of customer data, which helps to understand customer needs and adapt marketing strategies.

Organisational support includes an effective structure and processes, as well as interaction between company departments. The correlation between informational and organisational capabilities contributes to the achievement of marketing goals and the competitive advantage of IT companies in the market (Fuks & Kosar, 2022).

In IT marketing, one can conditionally distinguish between front-end and back-end – two parts of the work that have different goals (see Table 1).

The front-end is focused on creating an attractive image or visual impression, while the

back-end is responsible for the operation of the business, such as lead generation and sales.

Table 1 shows that front-end and back-end marketing solve different problems, although they are undoubtedly interconnected.

These two levels require the use of different tools and different skills. For example, a company can use SEO for lead generation, which requires an experienced specialist, rather than a brand marketer who is responsible for the company's perception in the market. On the other hand, if a company is faced with the task of building a reputation, it will need a creative specialist who can create an attractive brand image.

Thus, the use of information management, data analytics, monitoring tools, and web analytics helps IT companies understand their audience, respond to market needs, increase

**Table 1**  
**Specifics of marketing activities in IT companies**

"Front-end" marketing	"Back-end" marketing
Direction of marketing activities	
Public relations (PR) – ensuring communication with the target audience.	Lead generation is the creation of traffic flows of potential customers to a website.
Branding is the formation of a company's image using visual elements.	Marketing management – supporting the product development process.
HR marketing is about building trust and interest in the company in the labour market.	Marketing research – searching for new market segments, testing hypotheses, market analysis.
Social marketing is the holding of socially important, charitable events to build a positive image.	Trade marketing – sales promotion through the involvement of all participants in the trading process.

Source: compiled by the author on the basis of (Telnova, 2020)

the effectiveness of marketing efforts, and succeed in the digital environment.

Collecting data on target audiences, user behaviour, campaign effectiveness and conversion is critical in digital marketing to understand audiences, measure effectiveness, identify trends and optimise conversions. By analysing big data, IT companies can gain a deep understanding of consumers and use machine learning to predict consumer behaviour based on hidden patterns.

Technological partnerships and collaborations with start-ups are becoming an important tool for the development and success of IT companies' marketing activities. They help accelerate the innovation process, attract new ideas and technologies, and create a competitive advantage in the marketplace.

Organisational support for the marketing activities of IT companies involves creating an effective structure and processes. Current trends focus on creating flexible, inbound, flat structures of marketing departments. Agile methodologies and cross-functional teams are widely used, and new positions such as growth hackers are being created.

Marketing in IT companies is traditionally divided into front-end and back-end, with the front-end focused on branding and the back-end responsible for lead generation, traffic and sales.

Analysing the impact of the war on the country's economy, and on the IT industry in particular, an active recovery of development is expected in the post-war period against the backdrop of rapid digitisation of the state. Foreign partners are already creating support programmes for Ukrainian companies and will attract large investments in the future.

#### 4. Conclusions

The use of information delivery, data analysis, monitoring tools and web analytics plays a crucial role in digital marketing for IT companies. These tools help to collect and analyse data from various sources such as websites, social media and CRM systems. Big data and machine learning algorithms make it possible to identify complex interdependencies and predict consumer behaviour.

Technological partnerships and collaborations with start-ups are becoming important factors in the development of marketing activities for IT companies. This allows companies to acquire new ideas, technologies and a competitive edge in the market.

Organising marketing in IT companies means creating effective structures and organising processes based on agile methodology and cross-functional teams. This ensures flexibility and rapid response to changing market conditions. Organisational structures of marketing departments in IT companies are often based on inbound marketing approaches, flexible and adaptable structures for rapid growth with the introduction of growth hacking specialists, flat hierarchies without middle managers, etc.

The war is having an impact on the Ukrainian economy and IT industry. An active recovery process is expected, driven by government digitisation, foreign partner support programmes for Ukrainian companies, and significant investment attraction. Future research will assess how these recommendations influence the marketing activities of IT companies and analyse economic trends in the Ukrainian digital market.

#### References:

- Ponomarenko, V. S., Zhuravlova, I. V., & Latysheva, I. L. (2008). Information systems in personnel management. Textbook. Kharkiv, 336 p.
- Yastremska, O. M., & Raiko, D. V. (2011). Organisational support of the enterprise's marketing activities. *Bulletin of the Khmelnytsky National University. Economic sciences*, Vol. 2, t. 3, p. 112–116.
- Segal, T. (2024, February 13). What Is Big Data? Definition, How It Works, and Uses. *Investopedia*. Available at: <https://www.investopedia.com/terms/b/big-data.asp>
- What is machine learning? Available at: <https://www.ibm.com/topics/machine-learning>
- Salesforce: The Customer Company. Available at: <https://www.salesforce.com>
- Customer Relationship Management (CRM). Available at: [https://dynamics.microsoft.com/en-us/crm/#sort=relevancy&f:@version=\[Microsoft%20Dynamics%20CRM\]](https://dynamics.microsoft.com/en-us/crm/#sort=relevancy&f:@version=[Microsoft%20Dynamics%20CRM])
- Top-rated Sales CRM Software by Customers – Zoho. Available at: <https://www.zoho.com/crm/>
- hubspot – HubSpot CRM. Available at: <https://www.hubspot.com/products/crm>



- Acunzo, J. (2017, July 28). The CMO's Guide to Marketing Org Structures [Presentation]. Available at: <https://blog.hubspot.com/marketing/the-cmos-guide-to-marketing-org-structure-report>
- Byass, J. The Changing Structure of Marketing Departments in the Age of Disruption. Available at: <https://www.simple.io/blog/marketing-department-structure/>
- Growth hacking. *Snov.io*. Available at: <https://snov.io/glossary/growth-hacking/>
- What is Agile? What is Scrum? *Cprime*. Available at: <https://www.cprime.com/resources/what-is-agile-what-is-scrum/>
- Brunskill, V.-L. (2019, August) What is a Sprint (Agile Software Development) *TechTarget*. Available at: <https://www.techtarget.com/searchsoftwarequality/definition/Scrum-sprint>
- The triad in a cross-functional product team. *Telegraph*. Available at: <https://telegraf.design/triada-v-krosfunktsionalnij-produktovij-komandi/>
- Fuks, K. V., & Kosar, N. S. (2022). Opportunities and risks of the digital economy in Ukraine. *Marketing and Logistics in the Management System: Abstracts of the XIV International Scientific and Practical Conference*. Lviv, p. 227–228.
- Telnova, A. (2020, October 14), Front and Back end of IT marketing or how marketing in IT lives by the laws of programming. *Marketer.ua*. Available at: <https://marketer.ua/ua/front-and-back-end-of-it-marketing>

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