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DOI <https://doi.org/10.32782/2786-765X/2026-13-34>**Iryna Smuk**

Head of Marketing,

Ivan Franko National University of Lviv

ORCID: <https://orcid.org/0009-0006-0581-9295>

## THE ROLE OF DIGITAL MARKETING IN FORMING PROMOTION AND DEVELOPMENT STRATEGIES FOR STARTUPS

The study substantiates the theoretical and methodological foundations for developing startup marketing strategies in a digital environment, emphasizing the integration of digital marketing tools, CRM technologies, and artificial intelligence. Startup marketing is considered as a multilevel system combining corporate, functional, and operational components, where CRM ensures customer orientation and personalized engagement. The effectiveness of strategies is linked to growth hacking approaches that enable rapid testing and scaling of decisions. The integration of digital communication channels, analytical tools, and data-driven approaches enhances marketing performance and competitive advantages. Particular attention is given to AI and neural networks, which improve forecasting accuracy, automate analytics, and optimize decision-making, forming the basis for innovative and scalable startup development.

**Keywords:** startup, marketing strategy, digital marketing, CRM, growth hacking, artificial intelligence, digital environment, innovation.

**Problem statement.** In the context of digital transformation of the economy and the growing role of innovative entrepreneurship, the problem of developing effective marketing strategies for startups – capable of ensuring their competitiveness, scalability, and sustainable development – is becoming particularly relevant. Despite the active adoption of digital technologies, the use of digital marketing tools, CRM systems, and growth hacking approaches, startup practice demonstrates a lack of a coherent strategic approach to managing marketing processes. This leads to fragmented decision-making, misalignment of tools, and reduced effectiveness in promoting innovative products.

This problem has an interdisciplinary nature and is directly connected to the need to address important scientific and practical tasks – specifically: the development of integrated marketing strategy models for startups adapted to the digital environment; improving the effectiveness of digital communication channels; optimizing consumer engagement; and ensuring effective use of innovative technologies, including artificial intelligence. These factors necessitate further in-depth research into the outlined issues.

### Review of recent research and publications.

The study of marketing strategy formation for startups in the digital environment is associated with research into growth hacking processes, digital transformation of business models, the development of innovative entrepreneurship, and data-driven approaches

to managerial decision-making. The works of Y. Joshi, R. Bodhi, S. Chatterjee, M. Mariani, and others [1; 2] emphasize the impact of growth hacking on enterprise performance in unstable environments. V. Berg et al. [3] examine flexibility and quality assurance in startup product development, highlighting the importance of adaptive approaches under current conditions. O. Dmytrieva [6] analyzes trends in startup development and innovative entrepreneurship, focusing on their role in the structural transformation of the economy, while A. Cavallo, F. Cosenz, and G. Notoc [5] substantiate the mechanisms for scaling business models and using growth hacking in digital entrepreneurship.

A significant contribution to the study of digital marketing for startups has been made by N. Rizvanović et al. [11], who examine the impact of digital marketing tools on startup growth, while M. Cristofaro, P.L. Giardino, and L. Barboni [12] focus on the use of a scientific, data-driven approach to decision-making. C. Foggetti et al. [7] and C. Gerlich et al. [9] analyze the development of dynamic capabilities and the micro-foundations of growth hacking in the context of building competitive advantages. N. Petersen [8] examines digital business models for the international growth of startups, emphasizing the synergy between digitalization and globalization. The significance of startups' innovative potential and methods for its assessment are substantiated in the works of A. Tkachenko and D. Voronin [10], while



F. Scheuenstuhl, P.M. Bican, and A. Brem [13] explore the applicability of the lean startup approach to improving innovation processes.

Contemporary trends in digital marketing and startup growth strategies are also linked to the use of artificial intelligence, as reflected in the study by A. Rezazadeh et al. [14], which reveals the role of generative AI in shaping growth strategies. R. Bohnsack and M.M. Liesner [15] systematize approaches to growth hacking and define its practical significance for enterprises, while V.V. Prokhorova and V.I. Chobitok [16] substantiate the strategic foundations of startup development in an innovative environment.

**Research objectives.** The aim of this study is to substantiate the theoretical and methodological foundations for forming marketing strategies for startups in the digital environment, taking into account the use of digital marketing tools, CRM technologies, and artificial intelligence capabilities – with a view to improving the effectiveness of promotion, positioning, and scaling of innovative products.

**Presentation of the main research material.**

When developing marketing strategies for startups, it is necessary to proceed from the principle of systemic thinking, which requires consideration not only of market environment factors – market conditions, market share, and competitive context – but also of a comprehensive set of strategic factors, including: the core development concept of the startup, its global goals and objectives across key strategic areas of presence; trends in demand development and changes in consumer needs regarding the innovative product; the state and specifics of competitive dynamics; the level of resource provision and the feasibility of outsourcing as a means of attracting external resources; and the attraction of investment into development and commercialization processes, taking into account the possibilities of crowdfunding, fundraising, and institutional engagement with stakeholders [1; 4].

At the corporate level, portfolio strategies, growth strategies, and customer relationship management (CRM) strategies are formed, ensuring the creation of effective partnership programs for promoting innovative products. The practice of innovation-oriented companies confirms the appropriateness of the portfolio approach for optimizing investment flows between the stages of product development, production, and commercialization [16, p. 236]. Alongside this, the growth strategy holds significant importance – within its framework, startup participants focus on exceeding prior-period performance through the renewal of the product

portfolio and the enhancement of the innovative product's competitiveness.

Diagram of the marketing strategy content for startups (Fig. 1).

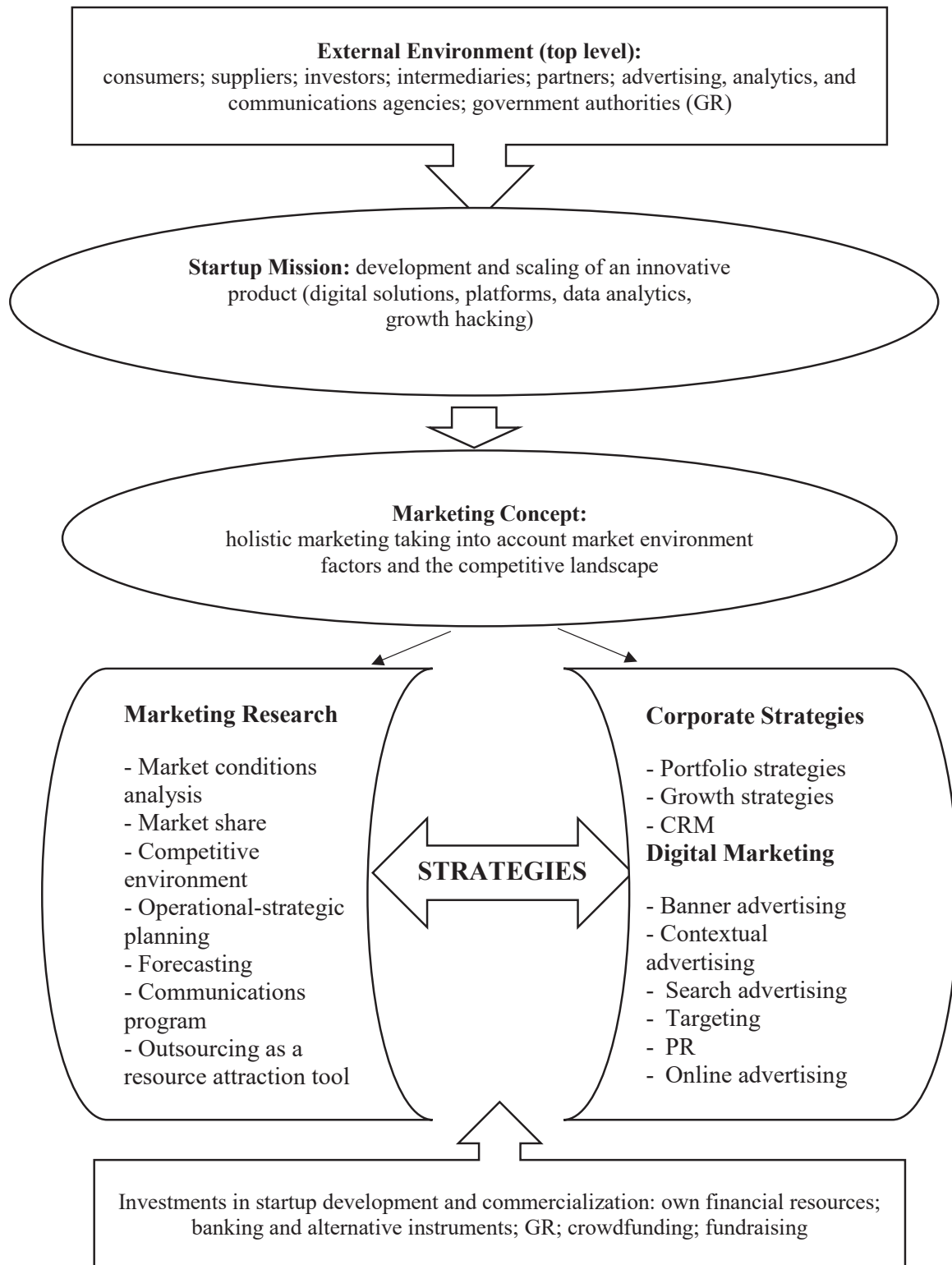
The role of Customer Relationship Management (CRM) strategy at the stage of bringing a startup to its target market segment is decisive in the context of ensuring digital marketing effectiveness and building sustainable competitive positions. CRM implementation is oriented toward automating and optimizing consumer interaction processes through systematic management of customer data, which improves communication quality, personalizes offerings, and creates long-term customer base value [11, p. 123]. Within startup development, this is directly linked to the application of growth hacking approaches, which involve rapid testing of marketing solutions and scaling of effective practices [1; 12].

CRM strategies encompass operational, analytical, and collaborative levels of customer relationship management. Operational strategies ensure the automation of collecting, storing, and processing information about clients, transactions, communication events, and business processes, which increases the effectiveness of sales managers, service units, and digital interaction channels. This organization of processes contributes to more effective promotion of the startup's product and the formation of a stable customer base as a strategic asset [15, p. 812].

Analytical CRM strategies are aimed at deep processing of consumer data and building a comprehensive customer profile. The use of analytical tools makes it possible to evaluate sales performance across individual products, market segments, and geographic characteristics, as well as to adjust marketing decisions in response to changes in consumer behavior. This approach forms the basis for strategically sound management decisions and increases the startup's adaptability to dynamic market conditions [7; 9].

Collaborative CRM strategies involve integrating various consumer communication channels into a unified interaction system, ensuring consistency of contacts and improving the quality of the customer experience. The combination of telephony, digital channels, electronic communications, and personalized forms of interaction creates the prerequisites for building a holistic communication ecosystem for the startup. As a result, marketing, sales, and service processes are synchronized, which aligns with the concept of holistic marketing [5, p. 2058].

The implementation of CRM strategy in startups covers key areas including marketing



**Fig. 1. A Model for forming a startup marketing strategy in a digital environment**

Source: compiled by the author based on analysis of [2; 10; 13]

research, sales automation, and after-sales service management. Comprehensive analysis of potential customer data enables the formation of an effective order portfolio and demand forecasting, while sales automation contributes to business process optimization and faster

decision-making. Service management ensures compliance monitoring and feedback analysis, which improves customer satisfaction and promotes retention [6, p. 117].

It is widely acknowledged that the development of digital marketing in startups is

directly linked to the evolution of innovative technologies, the origins of which date back to the early twentieth century. At the current stage, artificial intelligence technologies play a key role, with their development having been initiated by leading technology companies, including Baidu, Amazon, Microsoft, and Google. In the early stages of adoption, these technologies were characterized by high cost and implementation complexity; however, the subsequent development of cloud services such as AWS (Amazon), TensorFlow (Google), and Azure (Microsoft) made them accessible to a broad range of users, including startups. This significantly simplified the process of integrating artificial intelligence tools and artificial neural networks into marketing activities.

Innovations in the field of artificial intelligence created the conditions for the widespread adoption of artificial neural networks across various areas of socio-economic activity, including digital marketing. According to researchers, in the coming decades, such technologies may substantially transform the employment structure and partially replace traditional forms of labor, which confirms their strategic importance for startup development [3].

It is worth noting that the scientific foundations of artificial neural networks were established in the mid-twentieth century. A significant milestone was the creation of the artificial neuron model by Warren McCulloch and Walter Pitts in 1943, which represented the first formalized approach to modeling neural activity. Further theoretical development is associated with the work of Donald Hebb, who in 1949 proposed algorithmic principles of neural network learning that defined research directions for subsequent decades. In 1958, Frank Rosenblatt developed the perceptron – a model that simulated the information processing mechanisms of the human brain [8; 14].

A major breakthrough in neural network development occurred in 2007, when Geoffrey Hinton developed deep learning algorithms for multilayer neural networks [10; 13]. These approaches became the foundation of modern machine learning technologies, which are today applied across a wide range of fields, including autonomous systems, recommendation services, and digital marketing platforms.

The active integration of artificial intelligence technologies in startup digital marketing is driven not only by intensifying competition in global markets, but also by the pursuit of business process optimization, improved management efficiency, and reduced costs associated with training highly qualified personnel. The use

of intelligent systems enables the automation of complex analytical processes, increases the accuracy of consumer behavior forecasting, and ensures the personalization of marketing communications, which aligns with contemporary approaches to startup development in the digital environment [2, p. 26].

An important strategic aspect of the process of developing and promoting a startup's product is the effective use of digital marketing tools. Key tools include the startup's web resources – comprising the website and its content – web design, analytics, digital advertising, search engine optimization (SEO), software marketing products, and social media marketing (SMM) [11, p. 128]. Their integrated application enables the formation of a cohesive digital consumer interaction system and improves the effectiveness of marketing communications.

Digital marketing system-building strategies are characterized by dynamism and adaptability to changes in the digital environment. At the center of such a system lies not only the monitoring and control of marketing metrics, but also a focus on user behavioral patterns, their needs, and their digital experience. This approach aligns with the concept of data-driven marketing and involves the use of analytical tools to support management decisions and enhance consumer interaction effectiveness.

As noted by N.E. Mykytyuk and A.M. Chaykovsky, digital marketing strategies encompass a set of planning and management decisions regarding the practical application of information and communication technologies, including network technologies, mobile communications, geolocation services, and multimedia tools. Social media plays an important role as a key communication channel between the startup and its target audience, providing opportunities for scaling, personalization, and interactive engagement. The use of such channels facilitates brand building, increases user engagement, and supports the development of digital communities [4].

Practical areas of digital marketing strategy implementation include brand and product positioning analysis, competitive communications research, target audience segmentation, development of strategic recommendations, creation of a creative concept for digital presence, video content creation and promotion, definition of key performance indicators (KPIs), and justification of the marketing budget [16, p. 330]. The application of these tools ensures the coherence of marketing activities and enhances the effectiveness of startup product promotion.

The primary goal of a digital marketing strategy is to transform consumer behavior by engaging users within the startup's digital interaction environment, thereby driving growth in online sales. Key objectives include justifying the viability of presence in e-commerce markets in both B2B and B2C segments, developing and optimizing advertising content with a focus on personalization, meeting demand for new products and services, building effective targeting mechanisms, analyzing user behavior in the digital environment, and identifying the most effective media channels for building an order portfolio.

Thus, the use of digital marketing strategies is a necessary condition for the effective promotion and positioning of a startup, enabling the formation of competitive advantages and supporting scaling processes within the digital economy.

**Conclusions.** Summarizing the research findings, it should be stated that the stated objective of substantiating the theoretical and

methodological foundations for forming startup marketing strategies in the digital environment has been achieved, and all defined tasks have been fully accomplished. It has been demonstrated that the effectiveness of a startup's marketing activities is ensured through the integration of a systemic approach to strategic management, the use of CRM technologies, digital marketing tools, and artificial intelligence capabilities, which together form an adaptive, customer-oriented, and data-driven development model. It has been established that digital marketing strategy serves as a key element in ensuring startup competitiveness by contributing to business process optimization, personalization of consumer interactions, and scaling of the innovative product. At the same time, promising directions for further research have been identified, including the development of integrated digital marketing models utilizing intelligent analytical systems, as well as the refinement of methodological approaches to evaluating the effectiveness of marketing strategies in a dynamic digital environment.

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**Смук І.П.**керівник з маркетингу,  
Львівський національний університет імені Івана Франка  
ORCID: <https://orcid.org/0009-0006-0581-9295>

## **РОЛЬ ЦИФРОВОГО МАРКЕТИНГУ У ФОРМУВАННІ СТРАТЕГІЙ ПРОСУВАННЯ ТА РОЗВИТКУ СТАРТАПІВ**

Метою дослідження є обґрунтування теоретико-методичних засад формування стратегій маркетингу стартапів у цифровому середовищі з урахуванням інтеграції інструментів цифрового маркетингу, CRM-технологій та можливостей штучного інтелекту. Методологічною основою дослідження є системний, структурно-функціональний та процесний підходи, що дозволили розглянути маркетингову діяльність стартапів як цілісну багаторівневу систему. У роботі використано методи наукового узагальнення, аналізу та синтезу, порівняння, а також елементи концептуального моделювання для формування інтегрованої моделі маркетингової стратегії. У результаті дослідження визначено ключові компоненти формування стратегій маркетингу стартапів, зокрема корпоративні, функціональні та операційні рівні управління, а також обґрунтовано роль CRM як базового інструменту забезпечення клієнтоорієнтованості та персоналізації взаємодії зі споживачами. Встановлено, що ефективність маркетингових стратегій стартапів значною мірою залежить від використання підходів *growth hacking*, які забезпечують швидке тестування та масштабування маркетингових рішень у цифровому середовищі. Доведено, що інтеграція цифрових каналів комунікації, аналітичних інструментів та *data-driven* підходів сприяє підвищенню результативності маркетингової діяльності та формуванню конкурентних переваг стартапів. Особливу увагу приділено впливу технологій штучного інтелекту та нейромережових систем на розвиток маркетингових стратегій, що забезпечують автоматизацію аналітичних процесів, підвищення точності прогнозування поведінки споживачів та оптимізацію прийняття управлінських рішень. Обґрунтовано доцільність використання інтегрованої моделі формування стратегії маркетингу стартапів, яка поєднує цифрові технології, інноваційні підходи та стратегічне управління. Узагальнення результатів дослідження дозволило зробити висновок, що стратегія цифрового маркетингу виступає системоутворюючим елементом розвитку стартапу, забезпечуючи узгодженість маркетингових, збутових і комунікаційних процесів, підвищення ефективності просування інноваційного продукту та створення передумов для його масштабування. Перспективи подальших досліджень пов'язані з розробленням адаптивних моделей цифрового маркетингу на основі використання інтелектуальних аналітичних систем та вдосконаленням методичних підходів до оцінювання ефективності маркетингових стратегій стартапів у динамічному цифровому середовищі.

**Ключові слова:** стартап, стратегія маркетингу, цифровий маркетинг, CRM, *growth hacking*, штучний інтелект, цифрове середовище, інноваційний розвиток.

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